WHISTLER BLACKCOMB MASTER PLAN UPDATE 2013

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FOREWORD

Ecosign Mountain Resort Planners Ltd., has prepared ski area master plans in British Columbia since 1975. We prepared the first Ski Area Master Plan for Whistler Mountain in 1978 and we also prepared a conceptual Master Plan for Blackcomb Mountain in 1978 for the Blackcomb Skiing Corporation. Updates to the Master Plans for both mountains have been prepared periodically over the past 30 years. As the primary author of the Master Plans, it is important for the public, government officials and First Nations to understand that while we have worked diligently with the highly skilled and respected management team at Whistler Blackcomb, visions of the future are by their very nature imperfect. We have specifically found over the years that changes in the preferences of Whistler Blackcomb's clientele, population demographics and new types of winter sports mean that there will need to be flexibility in the Master Plan in the future. I give just two examples: The first two master plans for each of Whistler and Blackcomb had no mention whatsoever of snowboarding and yet snowboarders now comprise about one-third of all visitors on average throughout the winter season. The second example is new lift technology. There was no such thing as high speed, detachable grip chairlifts until our master plan for Blackcomb in 1986. Moreover, while we have long had dreams of connecting the alpine areas of Whistler and Blackcomb the technology was simply not available until around 2005. The new 3S (three ropes) technology allowed the true connection of the mountain top restaurants on each Whistler and Blackcomb with the revolutionary PEAK 2 PEAK Gondola which opened in December 2008. The tremendous success of the PEAK 2 PEAK Gondola as an iconic tourist attraction is an example of how changes in technology can allow for even greater visions to be realized.

In summary, when this document is reviewed in five, ten, twenty or thirty years we request that open mindedness and flexibility be utilized in examining future proposals in the ever changing requirements of visitors to Whistler and Blackcomb Mountains.

December 13, 2013

Paul E. Mathing

Paul E. Mathews, President Ecosign Mountain Resort Planners Ltd.



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I. INTRODUCTION

Overview

The Whistler Blackcomb Ski Resort is located on Crown Land in the Resort Municipality of Whistler. Whistler and Blackcomb Mountains are now under the ownership of Whistler Blackcomb Holdings Inc. and Nippon Cable Co. Ltd. and marketed to the public as one resort. The two mountains were originally developed as separate but adjacent ski resorts by independent owners. Each mountain has its own Operating License and Master Development Agreement with the Province of British Columbia. The Operating License governs the ongoing operation of the ski area on Crown Land. The Master Development Agreement allows for the phased development of mountain improvements and base area facilities within a Controlled Recreation Area (CRA) in accordance with a Ski Area Master Plan that is to be updated from time to time. The Blackcomb Mountain Master Plan was last updated in 1993 and an update of the Whistler Mountain Master Plan was prepared in 1998. Whistler Blackcomb retained Ecosign Mountain Resort Planners Ltd., to prepare updates of the Whistler Mountain Master Plan and the Blackcomb Mountain Master Plan in 2009. The first draft of this document was submitted to the Province in November 2010. This final report incorporates changes requested by the Province and input from other approval agencies. The report has also been updated to reflect construction that has occurred on the mountain and in the Whistler valley since 2010.

A separate Ski Area Master Plan has been prepared for each mountain, however, since the two mountains share the same resort village and are interconnected by the new PEAK 2 PEAK gondola, there are many elements of these master plan reports that are common to both mountains.



View towards Whistler Mountain Peak



The Whistler Mountain Master Plan Update 2013 contains an inventory of the existing recreation improvements, service facilities and infrastructure located within its CRA, including a description of all season recreational operations and third party tenures. The future recreational development potential of the terrain within the CRA and the RMOW's current plans for future development within Whistler are described in the Development Analysis section. The Mountain Facilities section of this report outlines Whistler Blackcomb's future plans for recreation improvements and adventure tourism activities on Whistler Mountain. Future plans for support services required at each of the mountain's valley staging areas are outlined in the Base Area Facilities section. The Environmental practices and summarizes the contents of environmental programs that are underway.

.1 Location and Regional Context

Whistler Blackcomb Ski Resort is located in the Resort Municipality of Whistler (RMOW), in the Squamish-Lillooet Regional District. Whistler Mountain's Controlled Recreation area abuts Garibaldi Provincial Park on the south and east, private land in Whistler on the west and the Blackcomb Mountain CRA on the north. Whistler Village is approximately 120 kilometres north of Vancouver, B.C. Metro Vancouver is Canada's third largest city, with a population of approximately 2.3 million people. Vancouver International Airport is approximately 135 kilometres south of Whistler and services 17.9 million passengers annually with connections to all major Canadian & U.S cities, Europe, Asia and Australia. There is regular scheduled bus service between Whistler and Vancouver and Vancouver International Airport, with frequency of service varying by season.

Access to Whistler Blackcomb is via Highway 99 (Sea to Sky Highway) which runs from West Vancouver along the edge of Howe Sound to Squamish, and inland to Whistler. Highway 99 continues for 35 kilometres north to Pemberton and then heads north-east to connect with Highway 97 in the interior of the Province. The Sea to Sky Highway between West Vancouver and Whistler was recently upgraded for the 2010 Olympic Winter Games. Interstate 5 connects Vancouver with Seattle, Washington, 220 kilometres to the south. Figure 1 illustrates the Area Location of Whistler Mountain and Whistler Resort and Figure 2 outlines the Study Area on Whistler Mountain. The Whistler Mountain CRA is 3,643 hectares (9002 acres).

.2 Historical Perspective

In the 1800's, the Whistler valley was part of a traveling route to the gold fields in the Caribou region known as the Pemberton Trail. The area was first surveyed by employees of the Hudson's Bay Company in 1858 and Whistler Mountain was named



London Mountain by British Naval Officers and Surveyors in 1860, due to the surrounding fog. One of the first settlers in the valley was a trapper named John Millar who ran a stopping house on the Pemberton Trail near the current Function Junction. The rough trail was only suitable for those travelling by foot, leading packhorses.

In 1913, Alex and Myrtle Philip purchased 10 acres of land on the northwest corner of Alta Lake and constructed Rainbow Lodge, a summer fishing resort. Access to the valley was greatly improved in 1915 with the opening of the Pacific Great Eastern (PGE) Railway providing rail service between Squamish and Lillooet. The Philips expanded Rainbow Lodge to accommodate 100 guests and it became the most popular summer tourist destination west of Banff and Jasper. Many other lodges were built around the lake to service the summer tourist trade and the small community became known as Alta Lake. In addition to water based recreation, the area between Squamish and Alta Lake was attractive for alpine hiking. Garibaldi Provincial Park, extending from just north of Squamish to just south of Pemberton was established in 1927 to conserve the significant glacial and volcanic alpine landscape.

In addition to tourism, the early economy relied on logging and mining. For several years there were mills and lumber operations on the shores of the valley's lakes with the timber transported to market by rail. In 1956, the railway was extended along the shore of Howe Sound to North Vancouver. With improved access, more people built summer cabins along the shores of the valley's lakes.

Although Alta Lake residents often ski toured on the surrounding mountains, lift serviced skiing wasn't contemplated until 1960 when a group of Canadian Olympic Committee officials searching for a Canadian site for a future Winter Olympics near Vancouver, selected London Mountain at Alta Lake. Franz Wilhelmsen headed a group of Vancouver businessmen and skiers in the formation of the Garibaldi Olympic Development Association (GODA) to develop the site to host a future Winter Olympics. The mountain's name was officially changed from London to its locally known name of Whistler, in honour of the shrill whistles made by the many marmots inhabiting the alpine areas. Garibaldi Lifts Limited was created in 1962, with Franz Wilhelmsen as president, to raise funds and erect and operate lifts on Whistler Mountain. By the fall of 1965, a four-passenger gondola to the mountain's mid-station, a double chairlift to the tree line and two T-bars (one in the alpine and one in the valley) had been installed, along with a parking lot and base lodge at Whistler Creek and a small warming hut in the alpine. The Provincial government completed a narrow gravel road from Vancouver, and the community of Alta Lake finally got electricity when a substation to power the ski lifts was built in 1965.



Whistler Mountain opened to the public in February 1966. The road from Vancouver was paved to Whistler in 1966 and to Pemberton in 1972.



Following the opening of the ski area, more subdivisions and cabins were built in the surrounding area. In 1974, the Provincial government halted development to prepare a plan for the provision of local government and badly needed services such as water, sewer, fire protection and policing to the rapidly growing community. The result of the planning process was the concept of developing a destination ski resort with a pedestrian resort village anchoring two ski areas. The Resort Municipality of Whistler was created in 1975 and Alta Lake was renamed Whistler in 1976. In 1977, the province issued a proposal call for the development of a ski area on Blackcomb Mountain and in 1978, 53 acres of Crown land were given to the Municipality to develop the town centre at the base of the two mountains. Blackcomb Mountain opened in 1980 with 5 lifts and 1,240 vertical metres of skiing. Whistler Mountain installed lifts and developed trails on its north side extending to the new village site. Construction of the accommodation in Whistler Village marked the beginning of Whistler's transformation into a major destination ski resort. Independently owned, the two mountains pressured each other to improve. When Blackcomb installed the 7th Heaven T-Bar providing skiers with one vertical mile of skiing, Whistler Mountain responded with the installation of the Peak Chair providing access to the high alpine.



Development continued rapidly during the late 1980's and early 1990's, resulting in a significant increase in annual skier and summer visits. In 1987, Whistler Mountain was purchased by the Young and Barker families through Bartrack Holdings Ltd. and Marin Investments Ltd. The 10-passenger Whistler Village Gondola was installed in 1988, which provided weather protected high speed access from Whistler Village to the alpine area. The following season, the two fixed grip Green Chairs were replaced with one high speed, detachable quadruple chairlift. Whistler Resort has been rated as the number one destination resort in North America for many consecutive years in Snow Country, Ski and Skiing Magazines.

In December 1996, Intrawest Corporation and Whistler Mountain Holdings announced their intention to combine the companies and their assets into one company under the Intrawest Resorts name. Over the following year, management and marketing of the two mountains was consolidated and the combined ski area became known to the public as Whistler Blackcomb. Intrawest Corporation was acquired by the private equity fund Fortress Investments LLC in October 2006. In the fall of 2010 Fortress initiated an effort to sell off their share of Whistler Blackcomb and separate it from Intrawest. The IPO was successfully completed on November 9, 2010. Whistler Blackcomb Holdings Inc. was established as a public corporation on the Toronto Stock Exchange. Nippon Cable increased their ownership to 25% and the remaining 75% is held in the public company. Under Whistler Blackcomb Holdings Inc., the two partnerhsips of Whistler Mountain Resort Limited Partnership and Blackcomb Skiing Enterprises Limited partnership operate the business of Whistler Blackcomb.

Construction of the Alpine Skiing Venue for the Vancouver 2010 Olympic Winter Games was completed on the northwest side of Whistler Mountain in 2007. With the construction of the PEAK 2 PEAK Gondola in 2007 and 2008, Whistler Mountain and Blackcomb Mountain became joined via the longest continuous lift system in the world. For the 2013/14 season Whistler Mountain will operate 20 lifts including the PEAK 2 PEAK 3S Gondola, 2 high speed gondolas, 7 high speed quad chairs, 2 triple chairs, 2 alpine T-bars and 9 surface beginner lifts. There are 8 mountain restaurants for skiers, snowboarders and sightseers to enjoy. Whistler Mountain has 1 terrain park and operates a snowmaking system capable of covering 87 hectares (215 acres). Today, Whistler and Blackcomb Mountains combined have over 8,100 skiable acres with 38 lifts and more than 200 ski trails. Whistler Mountain skier/snowboarder visits for the 2012/13 season were recorded at just over 1.1 million. In 2012, the Whistler Mountain Bike Park had just under 140,000 visits and the two mountains had combined sightseeing visits of over 350,000.



.3 Planning Issues

The successful design and operation of a mountain resort requires a solid footing on three separate pillars. The three critical resort elements, as illustrated in Plate I.1, are: physical, market and economic characteristics and factors.



CRITICAL RESORT ELEMENTS

PLATE I.1

The physical site characteristics include:

- environmental resources including water, air, soil, vegetation and wildlife
- terrain
- climate
- natural hazards
- visual resources
- recreational resources

The master planning process incorporates research by scientists, ecologists and recreational planners to document the physical characteristics of each individual site with air photos, topographical maps, three-dimensional computer models, on-site field work and surveying, and analytical planning technologies.

The next critical element necessary for a feasible mountain resort deals with the market characteristics including:



- access to the site
- the size and proximity of local, regional and destination markets
- population demographics such as: age, income and education
- population dynamics such as: growth, aging, and social trends, for example, fitness

Finally, there are economic factors and characteristics to be considered such as:

- resort capacity
- length of operating season (winter and summer)
- infrastructure cost and availability
- capital costs of facilities
- operating efficiency
- revenue sources and pricing
- human resources

Every resort possesses a different blend of these characteristics. It is very important to understand and document the balance between the physical, market and economic characteristics of each individual project.

.4 Glossary

The ski industry has a number of terms and technical jargon specific to ski area development, hence, a glossary is provided:

- 1. <u>Skier Visit</u> One person visiting a ski area for all or part of a day or night for the purpose of skiing or snowboarding. This is the total number of lift tickets issued. Skier visits include a person holding a full-day, half-day, night, complimentary, adult, child, season, or any other ticket type that gives a skier the use of an area's facilities.
- 2. **<u>Rated Uphill Capacity</u>** The manufacturer's rated number of skiers per hour a lift can transport to the top of the lift. An area's hourly capacity is the sum of the individual lifts
- 3. <u>VTM/Hour (000) (Vertical Transport Metres Per Hour)</u> The number of people lifted 1,000 vertical metres in one hour (vertical rise of a lift, times the lift capacity per hour, divided by 1,000). An area's total VTM, is the sum of VTM for all lifts.
- 4. **<u>VTM Demand/Skier/Day</u>** The amount of vertical skied (demanded) each day by a skier.



Skier (Comfortable) Carrying Capacity (SCC) - The number of skiers that a 5. given ski area can comfortably support on the slopes and lifts without overcrowding, or those that may be accommodated at one time and still preserve a congenial environment. A ski area's comfortable carrying capacity is a function of VTM demand per skier, VTM supplied per hour, difficulty of terrain and scope of support facilities. The Skier Carrying Capacity of an area is calculated assuming all the terrain is available for skiers and that the skiers are evenly distributed over the available terrain. If weather and or snow conditions make parts of the area more attractive than others, the more attractive areas may feel overcrowded even though there are fewer skiers on the mountain than the area's theoretical SCC. For ski areas like Whistler Blackcomb that sometimes need to shut down sections of the mountain due to stormy weather (high winds, poor visibility or avalanche risk), there must still be sufficient ski terrain and lift capacity to provide holiday crowds with an enjoyable ski experience. Therefore Whistler Blackcomb has historically provided an SCC in excess of the anticipated peak day skier visit levels.

Skier Carrying Capacity assumes that there will be lift queues. A detachable chairlift would expect to have a lift queue equal to 2 times the ride time while the fixed grip chairlift would have a lift queue equal to its ride time under peak conditions. Sometimes it is desirable to provide sufficient lift capacity at certain lifts so that access to the lifts is relatively free flowing and no queues develop. Ecosign refers to the design capacity where no lift queues develop during the peak skier visitation as the Quality Carrying Capacity (QCC) of the lift system.

- 6. <u>Utilization</u> Is measured, as a percent, of skier carrying capacity. Comfortable Seasonal Capacity is the product of a ski area's daily skier carrying capacity times its days of operation. Utilization compares actual skier visits to calculated comfortable seasonal capacity.
- 7. <u>**Terrain Pod</u>** a contiguous area of land deemed suitable for ski lift and trail development due to its slope gradients, exposure and fall line characteristics.</u>



II. INVENTORY

.1 Introduction

The inventory stage includes the identification, analysis and mapping of all onsite and off-site factors which may affect the development potential of the ski area. The inventory data includes: the land status, climatic, biophysical, and physiographic characteristics of the Study Area, as well as an analysis of the existing ski area. The Whistler Mountain Controlled Recreation Area (CRA) comprises 3,643 hectares (9,002 acres) on the south and west side of Fitzsimmons Creek, and is illustrated on all maps and figures. Through an understanding of the site's existing conditions and natural process, environmentally sensitive areas can largely be avoided and natural development opportunities maximized.

As a prelude to discussing the mountain's characteristics, it is appropriate to familiarize the reader with the basic requirements of ski area development. Ski area development is generally considered to be a non-consumptive resource use of the land. The development of ski lifts and ski trails requires the use of approximately 35 to 50 percent of the area in small, heavily developed zones. Ski lift right-of-ways are generally 12 to 15 metres in width, while ski trails vary between 30 and 60 metres wide. Subsequent to rough grading by practices selected for each site, the ski trails require fine grooming and seeding to establish a grass cover. This grass cover prevents erosion and helps to minimize hazards and damage to the skiers' equipment during low snowpack periods and possible damage to the area's snow grooming fleet. Ski lifts are generally aerial cable systems with steel towers and concrete foundations every 45 to 75 metres.

Ski base area development generally includes a paved access road, parking lots, accommodation buildings, a daylodge and a maintenance centre. Additionally, appropriate power and water supply, and sewage disposal facilities are required to support any base area improvements.

The physical site characteristics discussed in this section all interact to aid the planning team when assessing the capability of the natural systems to support resort development.

.2 Physiography

The quality and feasibility of a winter sports site is highly dependent upon the topographic characteristics of each individual site. Physiographic features which substantially affect ski development in particular include: aspect (exposure), slope



gradients, fall line patterns and elevations. The Study Area identified for mountain planning purposes includes the current terrain and adjacent lands encompassing approximately 5,250 hectares.

Land Form

The Whistler Mountain ski area is located on the end of a wide ridge situated between the Fitzsimmons Creek valley and the Cheakamus River valley. This ridge consists of several main peaks, four of which (Flute, Piccolo, Little Whistler and Whistler) are within the Study Area. The entire ridge is bounded on the south by extremely steep slopes, with the topography dropping quickly into the Cheakamus River valley. The north side of the ridge is generally bounded by fairly steep slopes on the uppermost elevations, followed by moderate slopes near the tree line and extremely steep slopes in the lower elevations, dropping quickly into the Fitzsimmons Creek valley. The peaks on the eastern side of the Study Area form several bowls, which drain to the northeast and northwest.



Symphony Bowl

The western end of the Study Area is split into three zones separated by a ridge protruding northward from Little Whistler and Whistler Creek. The ridge diverts the drainages northward (into Fitzsimmons Creek) and westward (into Whistler Creek). The east side of this ridge has moderate slopes draining eastward while the north side of this ridge has slopes ranging from steep to relatively flat, dropping slowly down to the Whistler Village and Brio subdivision. The slopes on the west side of the ridge slope quite steeply to the west with several moderately sloping plateaus flowing across the main fall line. The southwest corner of the Study Area, to the southwest of Whistler Creek, falls generally in the north-westerly direction from the Whistler Peak



to the Whistler valley. The upper most, above tree line slopes, are extremely steep, with moderate to steep slopes in the mid elevations and moderate to flat slopes in the lower elevations. Most of this area has relatively uniform fall line patterns, except the hummock plateau in the northwest corner of the Study Area at the 900-1,000 metre elevation.

Aspect Analysis

Exposures within the Study Area occur mostly in the northerly directions, spanning from directly east to directly west, with small areas of exposures in the southerly directions, however, there are large amounts of south facing terrain falling towards the Cheakamus valley, which is only partly shown on the mapping. Trails serviced by the Creekside Gondola and Big Red have exposures chiefly in the western quadrant, while the rest of the ski trails generally have exposures in the northerly quadrant. Some trails in the Ratfink and Symphony Bowl area have exposures in the easterly quadrant while the "Whistler Westside" area (in the northwest end of the Study Area) has exposures primarily in the western quadrant. With no significant southern exposures, Whistler has very good natural "snow holding" qualities. Figure 3 graphically illustrates the Aspect Analysis for Whistler Mountain.

Elevation

The potential vertical drop available for lift serviced skiing plays an important role in site suitability since it determines the length of the trails and also the vertical transport metres (VTM) that can be supplied to the skiing public. Essentially, the more vertical the better, as many skiers use vertical rise as a basic yardstick of ski area desirability.

Elevations within the Study Area range from 600 metres in the southwest corner to 2,180 metres at the peak of Whistler Mountain. This provides a potential vertical drop of 1,580 metres, while the existing ski area has a lift serviced vertical drop of 1,522 metres. Figure 4 graphically illustrates the Elevation Analysis for Whistler Mountain.

Fall Line Analysis

The Fall Line Analysis, as shown on Figure 5, analyzes the natural routes of descent to determine major drainages, fall line patterns, and primary and secondary fall line concentration areas. The concentration areas suggest potential lift terminals and hence, suitable base facility locations, as well as ski trail intertie points. The study area is bounded on the south by a ridge connecting Flute, Piccolo, Little



Whistler and Whistler peaks. All fall lines flow in northerly directions, but mostly in a northeast direction in the western portion of the study area (collecting in Fitzsimmons Creek (which then flows northwest), in a north-westerly direction in the central and center-west parts of the study area (towards the whistler valley) and then west through south in the far south-western part of the study area.

.3 Solar Shading and Radiation Analysis

Most skiers are highly aware of the sun's influence on snow quality. While skiers prefer to ski in the sun, they will not do so if the snow is sticky or mushy due to intense solar radiation. As illustrated in Plate II.1, skiers will follow the sun throughout the day, skiing eastern exposures in the morning, southern exposures at noon and western exposures in the afternoon. As a general rule, southern slopes are the warmest, eastern and western slopes the next warmest and northern slopes the coolest. Snowpack retention is a critical concern for any skiing operation and for this reason, slopes and trails should naturally be located where the snowpack remains for the longest period of time.



PLATE II.1

The site's angular relationship with the sun is a critical design parameter since it determines the time of day and for how long the sun's rays will bathe parking lots, mountain restaurants, ski slopes and the village. For this reason, a detailed solar analysis has been prepared to determine areas of topographic shading at 09:00 hrs., 12:00 hrs. and 15:00 hrs. on three selected days of the season. Figures 6a through 6c



illustrate the sun/shadow relationship throughout the Study Area on three selected days.

Figure 6a illustrates the sun/shadow relationship at 09:00 hrs. on the three selected days. On December 21, the entire northwest half of the Study Area is shaded, in addition to the northwest sides of Flute Bowl, Harmony Bowl and Glacier Bowl. Shading also occurs in the steep slopes of Fitzsimmons Creek valley below the ski area. The only portion of the northwest side of the Study Area which is sunny at this time of the day is the western part of the Whistler Valley. By January 21, the shadows have receded only slightly. By February 21, sunlight has taken over most of the south-eastern end of the study area, but the entire west side stretching from the Peak down to Creekside is still shaded, encompassing the whole width from Olympic Station and top of Garbanzo all the way south to Bagel Bowl.

As illustrated on Figure 6b, shading at 12:00 hrs. on December 21 still covers a quite significant portion of the Study Area. More than one third of the Study Area seems to be covered in shadows scattered all around the ski area. By January 21, the shadows have receded significantly but still occur in almost all the same locations as on December 22. By February 21 at 12:00 hrs., the sun has moved high enough in the sky so that the only areas sin shadows are on steep north facing slopes.

As shown in Figure 6c, approximately two thirds of the Study Area is shaded at 15:00 hrs. on December 21 including all of the Fitzsimmons River valley and the entirety of the ski area except parts of West Bowl and the west facing slopes between Creekside, Mid-station and the top of the Garbanzo. The entire south facing slopes on the of Flute, Piccolo and Whistler Peak (above the Cheakamus River valley) are bathed in sunlight, as well as small parts of Flute and portions of the west facing slopes between West Bowl and Function Junction. By January 21, the shadows have receded somewhat but still cover almost as much area as on December 21; significantly, both the Creekside base and Whistler Village have come into the sunlight as has the ski trails from mid-station to Creekside. February 21 sees a significant reduction in the extent of shading, on the west side of the mountain, however much of the ski area and the entirety of the Fitzsimmons valley is still shaded.

In general, snow is first deposited at higher elevations and then down in the valleys throughout the winter months. Then as the temperature starts to increase later in the season, the snowpack begins to melt as the temperature varies with elevation and changes in available solar radiation. Predicting the potential amount of solar radiation is important in the planning of a ski resort. The amount of solar radiation impacting the surface varies strongly with elevation, slope, aspect and solar shading from surrounding topographic features. Topographic shading decreases the



temperature near the ground which causes the snow to last longer. Even small changes in aspect can result in substantial differences in surface warming.

With this in mind, we have calculated the cumulative quantity of potential incoming solar radiation for each month during the winter ski season from December 1, 2009 to March 31, 2010. We have utilized software created and developed by Ivan Mészároš and Pavol Miklánek of the Institute of Hydrology of SAS in Bratislava, Slovakia called SOLEI¹. The time of year, sun position (azimuth and altitude), shadows cast by surrounding terrain, terrain slope, aspect and elevation are all analyzed to simulate and calculate direct, diffuse and reflected radiation. By combining these radiation values an accurate representation of potential energy coming in Kilowatt-hours per square metre over the entire study area is determined. The calculation is repeated every 15 minutes from sunrise to sunset for each day in a grid system. The resulting graphic on Figure 7 illustrates, with a warm to cool color spectrum, the warm and cool zones within the study area.

.4 Avalanche

Due to the rugged and steep nature of the Whistler Mountain topography, there are many sites where avalanches occur naturally. From the beginning, Whistler Mountain staff needed to control some of these avalanche paths and as the ski area has expanded, avalanche control has become a very important part of the ski area operations. Control of the avalanche potential is accomplished by a wide range of methods including avalaunchers, bombs dropped from bomb trams and helicopters (during particularly extreme conditions), ski cutting and hand charges etc. The Whistler Mountain ski patrol not only performs avalanche control but is the primary avalanche forecaster at the ski area.

1. I. Mészároš, P. Miklánek (2006): Calculation of potential evapotranspiration based on solar radiation income modeling in mountainous areas. Biologia, ISSN-1335-6372, Vol. 61, Suppl. 19, pp. S284-S288.

.5 Existing Mountain Facilities

Ski Lifts

Significant lift, trail, maintenance and skier service facility improvements have occurred on Whistler Mountain since the area opened in February 1966. Over Whistler's 47 year history, major lifts have been installed in 14 distinctive phases of development. Historic lift development up to the 2013/2014 ski season is summarized in Table II.1 and illustrated on Figure 8a Existing Mountain Facilities. Since the 1998 Master Plan, Whistler Mountain has installed a second access route



out of Whistler Village, upgraded the Peak Chair to a detachable lift, expanded and renovated the mountain top restaurant, completely redeveloped the Creekside base, provided lift service to Piccolo summit, completed the 2010 Olympic Alpine Skiing Venue and installed the PEAK 2 PEAK 3S gondola that connects the mountain top restaurants on Whistler and Blackcomb Mountains. In 2013, the Harmony Express quadruple chair was replaced with the Harmony 6, a detachable six passenger lift. The Harmony Express equipment was moved to the Crystal zone on Blackcomb Mountain (these new installations are outlined briefly below).



Peak Chair Viewing Down to Roundhouse and PEAK 2 PEAK



TABLE II.1 WHISTLER MOUNTAIN HISTORICAL LIFT DEVELOPMENT

Phase	Year	Lift	Lift Name	Lift	Hourly	Year
		Number		Туре	Capacity	Removed
	1965	4:1	Gondola	D4G	480	1992
1	1965	4:2	Red Chair	2C	720	1992
	1965	4:3	T-Bar 2 (moved to Alpine 1968)	ТВ	680	
	1965	4:4	T-Bar 1	ТВ	585	
2	1966	4:5	Blue Chair	2C	1,200	1995
3	1968	4:8	Green Chair 1 (lengthened 1970)	2C	990	1989
4	1972	4:10	Olive Chair	2C	1,000	1992
	1972	4:11	Orange Chair	2C	1,200	2009
5	1975	4:12	Green Chair 2	2C	1,200	1989
6	1978	4:13	Little Red Chair	2C	1,440	1992
	1980	4:14	Village Chair	3C	1,800	1988
7	1980	4:15	Olympic Chair (shortened 1989)	3C	2,000	
	1980	4:16	Black Chair	3C	1,800	1999
8	1986	4:20	Peak Chair	3C	1,300	1998
9	1988	4:22 A	Whistler Village Gondola (lower)	D10G	2,640	
	1988	4:23 B	Whistler Village Gondola (upper)	D10G	2,640	
10	1989	4:24 F	Green Chair Express	D4C 2,		1997
1992 C		C	Quicksilver Express Quad	D4C-B	2,650	1996
11 1992		Е	Redline Express Quad	D4C	2,800	1997
	1995	D	Harmony Express	D4C	2,400	2013
	1996 C		Creekside Gondola (replacement)	D6G	2,370	
1997 E		Е	Big Red Express (replacement)	D4C	2,800	
1997 F			Emerald Express (replacement)	D4C	2,800	
	1998	G	Peak Express D4C		2,500	
12	1998	K	Franz's Triple Chair	3C	1,405	
			Shorten T-bars			
13	1999	Q	Fitzsimmons Express	D4C-B	1,850	
	1999	Н	Garbanzo Express	D4C	2,800	
14	2005	N	Symphony Express	D4C	2,400	
	2008		Peak 2 Peak Gondola	3S-G	2,000	
15	2013	D(R)	Harmony Express	D6C	3,600	

In the summer of 1998, the Peak Chair was replaced with the Peak Express, a detachable quadruple chair, installed on the same alignment. The Peak triple chair equipment was moved to the former Little Red chair location to provide return cycle skiing on the upper half of the terrain serviced by the Big Red chair. This lift allows skiers in the novice to intermediate skill class to use this zone without struggling with the steep terrain on Upper Franz's. These lift installations were accompanied by grading improvements to facilitate loading, unloading and skier circulation around the lift terminals. In 1998, Whistler Mountain completed a major addition to the Pika's/Roundhouse restaurant at the top of the Village Gondola. The original roundhouse was removed and a new building connecting the top station of the Village



Gondola with Pika's was completed. The new facility provides a total of 1,505 seats and has been designed so that certain sections can be segregated for different user groups. The remodelled facility is known as the Roundhouse Lodge, while the cafeteria in the lower level retains the Pika's name.

A third access route up Whistler Mountain was constructed in 1999 with the installation of the Fitzsimmons and Garbanzo detachable quadruple chairs. The Fitzsimmons Express takes skiers from Whistler Village to just above the Whistler Gondola Olympic Station. The Fitzsimmons Chair (Lift Q) effectively doubled the staging capacity up Whistler Mountain from Whistler Village. The lift was installed with lexan bubbles to provide protection from the weather. From the top of the Fitzsimmons Chair skiers slide to the bottom terminal of the Garbanzo Chair (Lift H) which services the "Garbanzo Basin" stretching from the Olympic trail to the Tokum trail. The top terminal was located above the start of the Dave Murray Downhill near the top of the old Black chair which was removed to install this lift. Skiers using the Fitzsimmons/Garbanzo combination to stage from Whistler Village need to ski to Emerald, Redline or Franz's to access the upper mountain. The Chic Pea, a small 118-seat restaurant was constructed on the flats just beyond and below the top of the Garbanzo Chair, in 1999.



Fitzsimmons Express



In 2005, Whistler installed the Symphony Express (Lift N) from the bottom of Symphony Bowl to the Piccolo summit. This lift opened up access into Rhapsody and Flute Bowls. Trails serviced by this lift are in the low intermediate through expert skill class; open alpine bowls lead into naturally gladed slopes, with the bottom terminal located just below the tree line. To egress out of the Symphony Bowl area, skiers must head toward the Burnt Stew Trail back to the Harmony Express from the top of the lift, as the bottom terminal of the Symphony Lift is below the trails leading back to the rest of the mountain. Construction of the Vancouver 2010 Olympic Winter Games Alpine Skiing Venue on Whistler Mountain took place during the summers of 2006 and 2007. A new women's downhill course was constructed which included a skier underpass at the intersection of Wild Card, Franz's Run and Highway 86 to allow skiers from Upper Franz's Run and Highway 86 to pass under the Women's Downhill course as it transitions from Wild Card to Lower Franz's Run.



Bottom Terminal Symphony Express

The PEAK 2 PEAK 3S (3 ropes) Gondola connects the Roundhouse restaurant on Whistler Mountain with the Rendezvous restaurant on Blackcomb Mountain. The



lift took 2 summer seasons to construct and opened on December 12, 2008. In the winter, skiers use this lift to move quickly (ride time of 11 minutes) between the alpine areas on the two mountains. The lift proved quite popular with ski school during the 2008/09 season when poor early season snow conditions delayed the opening of the alpine terrain on Whistler until late January. All of the high skill class children's ski and race programs running out of the Roundhouse used the PEAK 2 PEAK to access the high alpine on Blackcomb for the months of December and January. The record setting lift (longest unsupported span, highest distance above the ground) has proven quite popular as a summer sightseeing attraction with Whistler Blackcomb's summer sightseeing visits increasing to 315,000 during its first summer of operation.



PEAK 2 PEAK Gondola

In 2013, the Harmony Express was replaced with the Harmony 6, a detachable six passenger chair with a rated capacity of 3,600 pph. Since its installation in 1994, the Harmony Express (Lift D) has been one of the most popular lifts on the mountain and provides one of the best skier experiences available for those in the intermediate to expert skill classes. The Harmony lift is also the principle access and egress lift



for Symphony Bowl. Even when the line-ups for the lift approached 30 minutes, the trails were not crowded, indicating that there was ample opportunity to increase the lift capacity without overcrowding the trails. The new lift provides a theoretical capacity increase of 50%.

As of the 2013/2014 ski season, Whistler Mountain owns and operates 17 lifts consisting of a two-section detachable 10-passenger gondola, one six-passenger gondola, one six passenger detachable chairlift, six high speed quadruple chairs (one with a bubble), two triple chairlifts, two T-bars and 4 moving carpet surface lifts, as well as the PEAK 2 PEAK 3S gondola connecting with Blackcomb. In the forest where Pony Trail meets Bear Cub, Whistler has constructed a children's play structure called the Tree Fort. This facility is used by the children's ski school and is open to the general public when there is an attendant on-site.

The layout of the present lift and trail system is graphically illustrated in plan view on the Existing Mountain Facilities Map (Figure 8a). A detailed inventory of the lifts, with technical specifications is shown in Table II.2. These ski lifts have a total rated up-hill capacity of 36,963 passengers per hour and produce over 14.5 million vertical transport metres per hour (VTM/hr.). The current skiable vertical drop at Whistler Mountain is 1,522 metres, stretching from the top of the Peak Chair to the bottom of the Creekside Gondola.

Lift Number	Α	В	С	D	Ε	F	G	Н	I	J	K
Lift Name	Lower	Upper	Creekside	Harmony	Big Red	Emerald	The	Garbanzo	Olympic	T-Bars	Franz's
	Village	Village	Gondola	Express	Express	Express	Peak	Express	Chair	1&2	Chair
	Gondola	Gondola									
Lift Type	D10G	D10G	D6G	D6C	D4C	D4C	D4C	D4C	3C	2/T-B	3C
Year Installed	1988	1988	1996	2013	1997	1997	1998	2000	1980	1966	1998
Top Elevation m.	1,020	1,834	1,297	2,107	1,847	1,839	2,175	1,675	1,148	1,964	1,847
Bottom Elevation m.	677	1,020	653	1,582	1,295	1,415	1,774	1,018	1,022	1,786	1,580
Total Vertical m.	343	814	644	525	552	424	401	657	126	178	267
Horizontal Distance m.	1,480	3,340	1,963	1,612	2,390	1,760	995	2,010	715	680	1,130
Slope Distance m.	1,519	3,438	2,066	1,706	2,495	1,833	1,073	2,115	726	703	1,161
Average Slope %	23%	24%	33%	33%	23%	24%	40%	33%	18%	26%	24%
Rated Capacity	2,640	2,640	2,370	3,600	2,800	2,800	2,500	2,800	1,800	1,515	1,405
Operating Capacity (pph)	2,640	2,640	2,097	3,600	2,800	2,535	2,500	2,800	1,656	1,515	1,272
V.T.M./Hr.(000)	906	2,149	1,350	1,890	1,546	1,075	1,003	1,840	209	270	340
Design Rope Speed m/sec	5.5	5.5	5.2	5.1	5.1	5.1	5.0	5.1	2.5	2.8	2.5
Operating Speed m/sec.	5.5	5.5	4.6	5.1	5.1	4.6	5.0	5.1	2.3	2.8	2.3
Trip Time min.	4.60	10.42	7.49	5.93	8.19	6.64	3.58	6.94	5.26	4.18	8.41
Drive Output (KW)	560	1,120	670	847	660	575	500	808	150	75/75	150

TABLE II.2 WHISTLER MOUNTAIN LIFT SPECIFICATIONS EXISTING AREA – 2013/2014 SEASON



TABLE II.2 CONT'D WHISTLER MOUNTAIN LIFT SPECIFICATIONS EXISTING AREA – 2013/2014 SEASON

Lift Number	Ν	Q								
Lift Name	Symphony	Fitz-	Creekside	CLC	CLC	CLC	Olympic	Olympic		Kadenwood
	Express	simmons	Carpet	Carpet	Handle-	Handle-	Carpet I	Carpet II		Gondola
		Express			tow I	tow II				
Lift Type	D4C	D4C-B	MC	MC	HT	HT	MC	MC	TOTAL	Pulse G
Year Installed	2006	2000	2000	1999	1999	1985	2000	2004		2010
Top Elevation m.	2,035	1,020	664	1,026	1,035	1,032	1,028	1,048		880
Bottom Elevation m.	1,527	677	657	1,024	1,026	1,023	1,025	1,031		653
Total Vertical m.	508	343	7	2	9	9	3	17	5,829	227
Horizontal Distance m.	2,040	1,710	36	24	86	86	24	182		871
Slope Distance m.	2,158	1,744	37	24	86	86	24	183	23,177	904
Average Slope %	25%	20%	19%	8%	10%	10%	10%	9%	26%	26%
Rated Capacity	2,400	1,850	1,200	1,200	669	374	1,200	1,200	36,963	306
Operating Capacity (pph)	2,400	1,850	1,200	1,200	669	374	1,200	1,200	36,148	306
V.T.M./Hr.(000)	1,219	635	8	2	6	3	3	20	14,473	69
Design Rope Speed m/sec	5.0	5.0	0.7	0.7	1.7	1.4	0.7	0.7		5.0 max.
Operating Speed m/sec.	5.0	5.0	0.7	0.7	1.7	1.4	0.7	0.7		
Trip Time min.	7.19	5.81	0.87	0.57	0.85	1.07	0.57	4.35		
Drive Output (KW)	450	675	4	4	4	4	4	40Hp		149kW

Ski Trail Inventory

In order to provide an accurate account of Whistler Mountain's ski trail system, the trails have been classified in concert with the International Ski Trail Standards (Table II.3), as well as the seven skier skill classification levels exhibited in Table II.4.

TABLE II.3 INTERNATIONAL TRAIL STANDARDS

TRAIL DESIGNATION	SKIER ABILITY LEVELS
Easier	Beginner & Novice Skiers
More Difficult	Intermediate Skiers
Most Difficult	Advanced & Expert Skiers

Ski trails are classified via an evaluation of the following parameters: slope width, average gradient and the steepest 30 metre vertical pitch. Since the average slope gradient of a ski trail is generally much lower than the steepest 30 metre vertical pitch, trails are usually classified to ensure that the steepest 30 metre vertical pitch falls within five percent of the acceptable terrain gradients listed in Table II.4. Furthermore, a gentle novice ski trail cannot suddenly turn into an advanced ski trail for obvious reasons.



		Acceptable	
		Terrain	Maximum
Ski	ll Classifications	Gradients	Gradient
1	Beginner	8 - 15%	20%
2	Novice	15 - 25%	30%
3	Low Intermediate	25 - 35%	40%
4	Intermediate	30 - 40%	45%
5	High Intermediate	35 - 45%	50%
6	Advanced	45 - 60%	65%
7	Expert	60% +	

TABLE II.4 SKIER SKILL CLASSIFICATIONS

The 2013/2014 trail system has been plotted at a scale of 1:5,000 with 5 metre contours on the Existing Mountain Facilities Map (Figure 8a). Figure 8b graphically illustrates the Whistler Mountain Existing Facilities with an orthographic photo. The presently developed ski trail system, as listed in Table II.5, includes 183 numbered ski trails covering 757 hectares (1,870 acres). It should be noted that there also are many treed areas not identified on this map where people ski in small numbers, both inside and outside the ski area boundary.



Terrain in Chic Pea Restaurant Area



TABLE II.5 WHISTLER MOUNTAIN SKI TRAIL INVENTORY EXISTING AREA – 2013/2014

				Eler	vation	Total	Horz.	Slope]	Percer	tt Slope	Avg.	Horz.	Slope SI	viers A	t Area	
Trail		lrail	Skill	Top	Bottom'	Vertical	Dist.	Dist.			Width	Area	Area			Lift at
Name		No.	Class	Meters	Meters	Meters	Meters]	Meters	Avg.	Steep. N	leters	Ha.	Ha. Do	ensity	Total	Area
Lift A - Lower Village Gonde	ola															
Lower Olympic		A1	0	1,017	619	338	2,070	2,097	16%	27%	37	7.65	7.75	50	390	
Mid Fantastic		A2	ω	855	780	75	330	338	23%	31%	46	1.53	1.57	40	65	
Northern Lights/Lower Fan	-	A3	ω	870	619	191	1,010	1,028	19%	40%	43	4.37	4.45	40	180	
Upper Fantastic		A4	ω	1,045	864	181	1,060	1,075	17%	30%	72	7.64	7.75	40	310	
Crabapple	partial	B3	3	1,098	860	238	1,230	1,253	19%	35%	47	5.72	1.73	40	70	
Total Lift A		4	(not inc	guibul	B3)			4,539	(not in	cluding H	33)		23.25		1,015	740
Lift B - Upper Village Gonde	ola															
Upper Olympic	2/3 area	B1	\mathcal{C}	1,428	1,044	384	1,580	1,626	24%	32%	57	9.06	6.21	4	250	
Expressway		B2	2	1,295	1,020	275	2,220	2,237	12%	27%	21	4.63	4.67	50	235	
Crabapple	partial	B3	З	1,098	860	238	1,230	1,253	19%	35%	47	5.72	4.10	40	165	
Upper Orange Peel	2/3 area	E15	Э	1,660	1,645	15	240	240	%9	6%	23	0.56	0.37	4	15	
Mid Pony Trail	2/3 area	E16	3	1,595	1,527	68	490	495	14%	33%	29	1.40	0.94	40	40	
Bear Cub	1/3 area	E17	0	1,592	1,363	229	1,540	1,557	15%	29%	20	3.06	1.03	50	50	
Upper Whiskey Jack	1/3 area	Fl	7	1,835	1,662	173	1,030	1,044	17%	29%	39	4.03	1.36	50	70	
Lower Whiskey Jack	1/3 area	£	б	1,661	1,418	243	1,090	1,117	22%	32%	50	5.42	1.85	40	75	
Upper Ego Bowl	1/3 area	F6a	б	1,805	1,637	168	720	739	23%	35%	54	3.86	1.32	40	55	
Lower Ego Bowl	1/3 area	F6b	ω	1,637	1,476	161	810	826	20%	27%	60	4.84	1.64	40	65	
Ptarmigan Left	1/3 area	H3	5	1,497	1,455	42	290	293	14%	23%	40	1.15	0.39	30	10	
Ptarmigan	1/3 area	H4	5	1,520	1,095	425	1,500	1,559	28%	48%	50	7.45	2.58	30	75	
Orange Peel/ Dave Murray	1/3 area	6H	4	1,675	1,433	242	1,140	1,165	21%	39%	43	4.87	1.66	40	65	
Bear Paw	1/3 area	H10	4	1,429	1,068	361	1,150	1,205	31%	43%	45	5.20	1.82	40	75	
Tokum	1/3 area	H11	5	1,350	1,095	255	860	897	30%	46%	54	4.66	1.62	30	50	
Total Lift B		3	(not inc	luding	non "B"	trails)		5,116	(not in	cluding r	ion "B"	trails)	31.57		1,295	3,180
Lift C - Creekside Gondola																
Crossroads		C	4	1,270	1,188	82	595	601	14%	18%	93	5.51	5.56	40	220	
Fallaway		3	9	1,225	1,165	60	160	171	38%	55%	81	1.30	1.39	15	20	
Dave Murray Downhill		C	5	1,225	655	570	2,375	2,442	24%	46%	45	10.63	10.93	30	330	
		Ω	4	1,030	995	35	100	106	35%	40%	40	0.40	0.42	40	15	
		ე	4	1,000	856	14	540	559	27%	38%	53	2.85	2.95	40	120	
		C6	4	804	765	39	230	233	17%	27%	4	1.02	1.03	40	40	
Mid & Lower Franz's	partial	C	4	1,434	775	629	2,250	2,345	29%	40%	47	10.49	5.89	4	235	
Weasel	partial	E24	9	1,330	1,261	69	370	376	19%	51%	18	0.66	0.31	15	S	
Peak to Creek	partial	G25	5	1,698	661	1,037	3,765	3,905	28%	55%	50	18.68	7.82	30	235	
Dusty's Descent	partial	G26	5	1,456	1,112	344	1,205	1,253	29%	44%	57	6.84	2.87	15	45 1	ź dens.
Big Timber	partial	G27	9	1,326	856	470	1,940	1,996	24%	62%	40	7.68	3.19	×	25 1	ź dens.
Home Run	partial	G28	9	1,083	910	173	805	823	21%	45%	26	2.09	0.86	8	5 1	2 dens.
Total Lift C		Г	(not inc	luding	non "C"	trails)		6,457	(not in	cluding r	10n "C"	trails)	43.21		1,295	1,370



TABLE II.5 CONT'D WHISTLER MOUNTAIN SKI TRAIL INVENTORY EXISTING AREA – 2013/2014

			Hev	ation	Total	Horz.	Slope I	ercen	t Slope	Aw.	Horz.	Slope S	kiers A	t Area	
Trail	Trail S	Skill	Top]	Bottom	Vertical	Dist.	Dist.			Width	Area	Area			Lift at
Name	No. C	lass	Meters]	Meters	Meters	Meters	Meters	Aw.	Steep. I	Meters	Ha.	Ha. D	Density	Total	Area
Lift D - Harmony Express															
Upper Burnt Stew	Dla	с	2,105	1,795	310	1,875	1,910	17%	32%	23	4.33	4.41	4	175	
Lower Burnt Stew	D1b	ε	1,748	1,633	115	1,630	1,634	7%	10%	11	1.86	1.86	4	75	
Crescendo	D2	9	1,930	1,730	200	930	951	22%	65%	54	4.98	5.09	15	75	
	D3	9	1,810	1,807	ю	150	150	2%	2%	16	0.24	0.24	15	5	
Sun Bowl	D4	7	2,085	1,726	359	1,190	1,243	30%	71%	93	11.02	11.51	10	115 1	∕2 dens.
	D5	٢	1,936	1,725	211	570	608	37%	103%	128	7.31	7.79	10	80 1	∕₂ dens.
Harvey's Harrow	D6	٢	1,915	1,715	200	350	403	57%	8 6%	90	3.16	3.64	10	35.1	⁄2 dens.
Robertson's	D7	٢	1,925	1,700	225	470	521	48%	89%	209	9.83	10.90	10	110	∕₂ dens.
The Glades	D8	4	1,825	1,702	123	450	467	27%	35%	41	1.86	1.93	4	75	
Harmony Ridge	60	4	2,033	1,583	450	2,160	2,206	21%	37%	32	6.99	7.14	4	285	
	D9a	4	1,780	1,717	63	160	172	39%	50%	30	0.48	0.52	4	20	
Gunbarrels	D10	٢	1,735	1,586	149	370	399	40%	65%	107	3.95	4.26	5	20	/4 dens
Lower Boomer Bowl	DII	٢	1,685	1,584	101	360	374	28%	58%	92	3.32	3.45	5	15	l/4 dens
Boomer Bowl	D12	9	1,875	1,685	190	430	470	44%	65%	173	7.44	8.13	15	120	
Krumnholz	D13	9	1,887	1,745	142	500	520	28%	60%	50	2.51	2.61	15	40	
Kaleidos cope	D14	٢	1,910	1,760	150	405	432	37%	81%	150	6.06	6.46	20	130	
Low Roll	D15	٢	1,935	1,770	165	395	428	42%	87%	81	3.18	3.45	20	70	
Upper McConkey's	D16	٢	1,991	1,843	148	430	455	34%	84%	100	4.30	4.55	20	90	
Harmony Horseshoes Right	D17	٢	2,015	1,889	126	250	280	50%	8 6%	70	1.74	1.95	20	40	
Harmony Horseshoes Left	D18	٢	2,025	1,890	135	300	329	45%	88%	89	2.68	2.94	20	60	
Pika's Traverse	D19	З	2,105	1,835	270	1,715	1,736	16%	34%	14	2.36	2.39	40	95	
Camel Humps	D20	9	2,022	1,935	87	7,485	7,486	1%	52%	4	2.94	2.94	15	45	
Harmony Piste	D21	4	1,960	1,688	272	1,370	1,397	20%	47%	28	3.88	3.96	4	160	
	D21a	ю	1,688	1,595	93	410	420	23%	23%	8	0.33	0.34	4	15	
Lower McConkey's	D22	9	1,770	1,583	187	610	638	31%	65%	60	3.66	3.83	15	55	
Little Whistler	D23	٢	2,105	1,969	136	360	385	38%	80%	173	6.23	6.66	20	135	
Mumbling Rocks	D24	9	1,950	1,852	98	300	316	33%	47%	88	2.64	2.78	15	40	
	D25	S	1,880	1,785	95	400	411	24%	39%	43	1.71	1.76	30	55	
Waterfall/Bitter End	D26	9	1,810	1,717	93	420	430	22%	64%	52	2.17	2.22	15	35	
Lift Line	D27	2	1,727	1,600	127	325	349	39%	70%	31	1.02	1.10	20	20	
Lower G.S.	D28	ŝ	1,690	1,583	107	350	366	31%	49%	58	2.04	2.13	30	65	
G.S.	D29	ω	1,837	1,705	132	1,020	1,029	13%	24%	21	2.14	2.16	4	85	
Backbowl	D30	9	1,915	1,747	168	500	527	34%	52%	134	6.72	7.09	8	55	⁄2 dens.
Rabbit Tracks	D31	S	1,855	1,760	95	280	296	34%	42%	60	1.67	1.76	30	55	
Chunky's Choice	D32	9	1,805	1,585	220	620	658	35%	54%	46	2.86	3.03	15	45	
Dapper's Delight	D33	2	1,730	1,583	147	350	380	42%	87%	23	0.81	0.88	20	20	
	glades D34	2	1,781	1,614	167	420	452	40%	71%	4	1.85	1.99	10	50	∕2 dens.
Ratfink Right	glades D35	٢	1,777	1,695	82	170	189	48%	79%	62	1.06	1.18	10	10	∕₂ dens.
Ratfink	D36	9	1,835	1,635	200	860	883	23%	58%	37	3.20	3.29	15	50	
	glades D37	9	1,805	1,714	91	280	294	33%	53%	58	1.62	1.70	8	15 1	∕2 dens.
Marmot	D38	ε	1,730	1,581	149	1,280	1,289	12%	17%	16	2.06	2.07	40	85	
	D39	9	2,033	1,965	68	293	301	23%	36%	99	1.94	1.99	15	30	
	D40	9	2,015	1,855	160	480	506	33%	60%	146	7.03	7.41	4	30	/4 dens
Total Lift D	43						34,688					157.49		2,855	1,700



TABLE II.5 CONT'D WHISTLER MOUNTAIN SKI TRAIL INVENTORY EXISTING AREA – 2013/2014

				Elev	ation	Total	Horz.	Slope]	ercen	t Slope	Ave.	Horz.	Slope Sk	iers A	t Area	
Trail	L	rail	Skill	Top	Bottom	Vertical	Dist.	Dist.			Width	Area	Area		_	Lift at
Name		No. (Class	Meters	Meters	Meters	Meters 1	Meters	Avg.	Steep. N	Aeters	Ha.	Ha. De	nsity	Total	Area
Lift E - Big Red Express																
	2/3 area	Ξ	9	1,846	1,802	4	120	128	37%	48%	99	0.79	0.56	15	10	
	2/3 area	E	ю	1,846	1,810	36	135	140	27%	32%	58	0.78	0.54	40	20	
	2/3 area	囧	б	1,846	1,630	216	1,350	1,367	16%	39%	53	3.08	2.08	40	85	
	2/3 area	玿	4	1,830	1,700	130	400	421	33%	38%	122	4.88	3.42	40	135	
Roundhouse Roll	2/3 area	В	5	1,830	1,775	55	350	354	16%	30%	37	1.28	0.87	30	25	
Pale Face	2/3 area	EG	Г	1,787	1,679	108	240	263	45%	69%	2	1.54	1.13	20	25	
Porcupine	2/3 area	E7	ŝ	1,675	1,600	75	575	580	13%	31%	4	2.40	1.61	40	65	
Fisheye	2/3 area	E8	ŝ	1,713	1,582	131	590	604	22%	37%	38	2.23	1.52	40	09	
Little Red Run	2/3 area	63	З	1,716	1,617	66	340	354	29%	39%	8	1.17	0.81	40	35	
Upper Franz's Creek	2/3 area	E10	ŝ	1,735	1,601	134	500	518	27%	33%	55	2.76	1.91	40	75	
Old Man	2/3 area	E11	ŝ	1,740	1,580	160	680	669	24%	36%	8	2.33	1.59	40	65	
Franz's Meadow	2/3 area	E12	9	1,710	1,580	130	495	512	26%	52%	69	3.42	2.36	15	35	
Papoose	2/3 area	E13	0	1,662	1,590	72	470	475	15%	20%	51	2.42	1.63	50	80	
Banana Peel		E14	6	1,655	1,581	74	365	372	20%	27%	33	1.22	1.24	50	09	
Upper Orange Peel	2/3 area	E15	ŝ	1,660	1,645	15	240	240	6%	6%	33	0.56	0.37	40	15	
Mid Pony Trail	2/3 area	E16	ŝ	1,595	1,527	68	490	495	14%	33%	29	1.40	0.94	40	4	
Bear Cub	2/3 area	E17	0	1,592	1,363	229	1,540	1,557	15%	29%	20	3.06	2.06	50	105	
Lower Pony Trail		E18	ŝ	1,510	1,296	214	1,145	1,165	19%	30%	23	2.59	2.63	40	105	
Upper Insanity		E19	L	1,469	1,312	157	305	343	51%	69%	56	1.70	1.91	20	4	
Jimmy's Joker		E20	9	1.578	1,397	181	490	522	37%	52%	37	1.81	1.93	15	30	
Wild Card		E21	9	1,585	1,458	127	760	771	17%	50%	23	1.75	1.77	15	25	
Upper Franz's		E22	ŝ	1.590	1.392	198	745	771	27%	43%	28	2.07	2.14	30	65	
Goat's Gully		E23	L	1,490	1,305	185	450	487	41%	70%	45 2	2.03	2.19	20	45	
Weasel	partial	E24	9	1,330	1,261	69	370	376	19%	51%	18	0.66	0.31	15	5	
Mid Dave Murray		E25	4	1,433	1,296	137	640	654	21%	45%	37	2.39	2.44	40	100	
Women's DH		E26	9	1,465	1,385	80	250	262	32%	32%	36	0.00	0.94	15	15	
Mid & Lower Franz's	partial	C	4	1,434	775	629	2,250	2,345	29%	40%	47	10.49	5.04	40	200	
Doom & Gloom	partial	G10	9	1,924	1,678	246	635	681	39%	59%	146	9.27	5.76	8	45 1/	dens.
	partial	G11	٢	1,935	1,692	243	570	620	43%	65%	112	6.39	4.03	10	40 1/	dens.
L. Whistler Bowl/Grande Fi	partial	GI2	9	1,953	1,556	397	1,245	1,307	32%	75%	102	12.74	7.74	15	115	
Upper Whistler Bowl	partial	G13	9	2,171	1,944	227	670	707	34%	56%	106	7.11	4.35	15	65	
West Cirque	partial	GI4	2	2,136	1,940	196	640	699	31%	105%	30	1.90	1.15	20	25	
Christmas Trees	partial	G15	Г	1,925	1,675	250	520	577	48%	67%	258	13.43	8.63	10	85 1/	dens.
Sneaky Pete	partial	GI6	Г	1,935	1,683	252	770	810	33%	65%	20	5.36	3.27	20	65	
Cockalorum/West Bowl	partial	GI7	2	1,969	1,686	283	069	746	41%	81%	114	7.90	4.95	20	100	
Bagel Bowl Right	partial	GI8	L	1,950	1,685	265	655	707	40%	94%	206	13.47	8.42	20	170	
Bagel Bowl Left	partial	GI9	ŝ	1,905	1,702	203	555	591	37%	48%	47	2.59	1.60	30	50	
	partial	<u>G</u> 0	9	1,891	1,723	168	570	594	29%	63%	180	10.28	6.21	15	95	
Upper Peak to Creek	partial	631	ŝ	2,164	1,683	481	2,210	2,262	22%	51%	18	3.91	2.32	30	02	
Highway 86	partial	G22	S.	1,683	1,445	238	1,720	1,736	14%	29%	11	1.90	1.11	30	35	
Peak to Creek	partial	G25	ŝ	1,698	661	1,037	3,765	3,905	28%	55%	50	18.68	6.70	30	200	
Dusty's Descent	partial	G26	ŝ	1,456	1,112	34	1,205	1,253	29%	44%	57	6.84	2.46	15	35 1/	dens.
Big Timber	partial	G27	9	1,326	856	470	1,940	1,996	24%	62%	4	7.68	2.73	8	20 1/	dens.
Home Run	partial	G28	9	1,083	910	173	805	823	21%	45%	26	2.09	0.74	8	5 1/	dens.
Total Lift E		26	not inc	cluding r	10n "E"	trails)		16,775	not in	cluding 1	10n "E"	trails)	118.10		2,785	1,710



TABLE II.5 CONT'D WHISTLER MOUNTAIN SKI TRAIL INVENTORY EXISTING AREA – 2013/2014

				ŗ	•	Ē	:	Ę		2			5			
				Ele	vation	lotal	Horz.	Slope	Fercen	it Slope	Avg.	HOrz.	Slope S	kiers A	t Area	
Trail	E	rail	Skill	Top	Bottom	Vertical	Dist.	Dist.			Width	Area	Area			Lift at
Name		No. (Class]	Meters	Meters	Meters	Meters	Meters	Avg.	Steep.]	Meters	Ha.	Ha. I	Density	Total	Area
Lift F - Emerald Express																
Upper Whiskey Jack	1/2 area	F1	2	1,838	1,662	176	1,030	1,045	17%	29%	39	4.03	2.05	50	100	
Upper Enchanted Forest		Ę	ε	1,661	1,586	75	330	338	23%	43%	39	1.28	1.31	4	50	
Lower Whiskey Jack	2/3 area	£	\mathfrak{c}	1,661	1,416	245	1,090	1,117	22%	32%	50	5.42	3.71	4	150	
Pig Alley		F4	2	1,649	1,638	11	145	145	8%	8%	29	0.42	0.42	50	20	
Lower Enchanted Forest		$\mathbf{F5}$	\mathfrak{c}	1,620	1,505	115	450	464	26%	35%	56	2.50	2.58	4	105	
Upper Ego Bowl	2/3 area	F6a	\mathfrak{c}	1,805	1,637	168	720	739	23%	35%	54	3.86	2.64	4	105	
Lower Ego Bowl (class 3)	1/3 area	F6b	З	1,637	1,476	161	810	826	20%	27%	60	4.84	1.64	40	65	
Lower Ego Bowl (class 2)	1/3 area	F6b	2	1,637	1,476	161	810	826	20%	27%	09	4.84	1.64	50	80	
		FJ	4	1,594	1,535	59	230	237	26%	29%	37	0.86	0.89	4	35	
Cougar Trail		$\mathbf{F8}$	4	1,712	1,644	68	240	249	28%	41%	48	1.15	1.20	4	50	
		F9	4	1,745	1,675	70	250	260	28%	42%	42	1.05	1.09	4	45	
Jolly Green Giant		F10	Э	1,838	1,605	233	1,040	1,066	22%	32%	58	6.04	6.19	4	250	
		F11	5	1,646	1,597	49	180	187	27%	37%	43	0.77	0.80	30	25	
Race Center		F12	4	1,520	1,437	83	295	306	28%	33%	74	2.17	2.25	4	90	
Lower Jolly Green Giant		F13	Э	1,537	1,426	111	415	430	27%	35%	48	1.99	2.06	4	80	
Chipmunk Terrain Park		F14	4	1,650	1,576	74	350	358	21%	29%	46	1.60	1.64	4	65	
		F15	ŝ	1,655	1,638	17	130	131	13%	13%	49	0.64	0.65	4	25	
Bobcat		F16	ŝ	1,603	1,455	148	605	623	24%	37%	57	3.47	3.57	4	145	
Coyote		F17	4	1,560	1,470	90	320	332	28%	41%	56	1.78	1.85	4	75	
Green Acres Left		F18	4	1,738	1,488	250	915	949	27%	41%	55	5.05	5.24	4	210	
Green Acres Right		F19	5	1,740	1,500	240	890	922	27%	45%	61	5.44	5.63	30	170	
		F20	5	1,789	1,737	52	200	207	26%	36%	71	1.42	1.47	30	45	
		F21	æ	1,624	1,543	81	300	311	27%	32%	48	1.43	1.48	40	99	
Old Crow		F22	S	1,570	1,465	105	370	385	28%	35%	37	1.37	1.42	4	55	
Lower Sidewinder		F23	3	1,499	1,419	80	820	824	10%	11%	12	0.99	0.99	40	40	
Total Lift F		24	not inc	luding	F6b Clas	s 2)		12,451	(not in	cluding	F6b Clas	ss 2)	54.41		2,140	1,990



TABLE II.5 CONT. WHISTLER MOUNTAIN SKI TRAIL INVENTORY EXISTING AREA – 2013/2014

				Eleva	ation	Total	Horz.	Slope 1	ercei	at Slope	Awg.	Horz.	Slope Sk	ciers At	Area	
Trail	[[rail S]	kill	Top I	3 ottom V	ertical	Dist.	Dist.			Width	Area	Area		Γ	ift at
Name		No. CI	ass N	Meters 1	Meters]	Meters	Meters]	Meters	Avg.	Steep.	Meters	Ha.	Ha. De	ensity	Total A	Area
<u>Lift G - The Peak</u>																
The Saddle		G	5	2,088	1,775	313	1,275	1,313	25%	53%	42	5.37	5.53	30	165	
Mathews' Traverse		G2	Э	2,174	2,088	86	905	606	10%	15%	7	0.62	0.62	40	25	
The Couloir		8	٢	2,134	2,024	110	265	287	42%	121%	33	0.87	0.94	20	20	
The Cirque		5	٢	2,143	2,005	138	230	268	60%	169%	80	1.83	2.13	20	45	
Last Chance		ß	9	2,020	1,908	112	350	367	32%	48%	110	3.84	4.03	15	60	
Surprise		g	٢	2,016	1,820	196	445	486	44%	%69	144	6.42	7.02	20	140	
		67	٢	1,985	1,847	138	305	335	45%	75%	94	2.87	3.15	20	65	
Shale Slope		8 8	٢	1,953	1,775	178	460	493	39%	75%	120	5.53	5.93	20	120	
Left Hook		93	٢	1,905	1,777	128	320	345	40%	71%	55	1.77	1.91	20	40	
Doom & Gloom	partial	G10	9	1,924	1,678	246	635	681	39%	59%	146	9.27	4.18	8	30 1/2	dens.
	partial	G11	٢	1,935	1,692	243	570	620	43%	65%	112	6.39	2.92	10	30 1/2	dens.
L. Whistler Bowl/Grande Fir	partial	G12	9	1,953	1,556	397	1,245	1,307	32%	75%	102	12.74	5.63	15	85	
Upper Whistler Bowl	partial	G13	9	2,173	1,944	229	670	708	34%	56%	106	7.11	3.16	15	45	
West Cirque	partial	G14	٢	2,136	1,940	196	640	699	31%	105%	30	1.90	0.84	20	15	
Christmas Trees	partial	G15	٢	1,925	1,675	250	520	577	48%	67%	258	13.43	6.27	10	65 1/2	dens.
Sneaky Pete	partial	G16	٢	1,935	1,683	252	770	810	33%	65%	70	5.36	2.37	20	45	
Cockalorum/West Bowl	partial	G17	٢	1,969	1,686	283	690	746	41%	81%	114	7.90	3.59	20	70	
Bagel Bowl Right	partial	G18	٢	1,950	1,685	265	655	707	40%	94%	206	13.47	6.11	20	120	
Bagel Bowl Left	partial	G19	S	1,905	1,702	203	555	591	37%	48%	47	2.59	1.16	30	35	
	partial	G20	9	1,891	1,723	168	570	594	29%	63%	180	10.28	4.51	15	70	
Upper Peak to Creek	partial	G21	S	2,164	1,683	481	2,210	2,262	22%	51%	18	3.91	1.68	30	50	
Highway 86	partial	G22	S	1,683	1,445	238	1,720	1,736	14%	29%	11	1.90	0.81	30	25	
		G23	9	2,060	1,945	115	340	359	34%	45%	70	2.37	2.50	15	40	
Glacier Bowl		G24	9	2,055	1,916	139	405	428	34%	43%	142	5.74	6.07	15	90	
Peak to Creek	partial	G25	S	1,698	661	1,037	3,765	3,905	28%	55%	50	18.68	4.87	30	145	
Dusty's Descent	partial	G26	S	1,456	1,112	34	1,205	1,253	29%	44%	57	6.84	1.79	15	25 1/2	dens.
Big Timber	partial	G27	9	1,326	856	470	1,940	1,996	24%	62%	40	7.68	1.98	×	15 1/2	dens.
Home Run	partial	G28	9	1,083	910	173	805	823	21%	45%	26	2.09	0.54	8	5 1/2	dens.
Total Lift G		28						25,576					92.25		1,685	810


TABLE II.5 CONT. WHISTLER MOUNTAIN SKI TRAIL INVENTORY EXISTING AREA – 2013/2014

-	Ē	1		Ē	vation	Total	Horz.	Slope	Percei	nt Slope	Avg.	Horz.	Slope S	kiers A	t Area	1.9
Name	-	l S	Class	rup Meters	Meters	Meters	Meters		Αw.	Steen.	Meters	Al ea Ha.	AI tea Ha. D	ensity	Total	Area
Lift H - Garbanzo Express									io I							
Raven		ΗI	5	1,674	1,545	129	455	473	28%	50%	52	2.36	2.45	30	75	
Lower Raven		H2	9	1,565	1,485	80	270	282	30%	60%	61	1.64	1.71	15	52	
Ptarmigan Left	2/3 area	H3	5	1,497	1,455	42	290	293	14%	23%	40	1.15	0.77	30	25	
Ptarmigan	2/3 area	H4	5	1,520	1,095	425	1,500	1,559	28%	48%	50	7.45	5.16	30	155	
Seppo's		H5	9	1,674	1,301	373	1,165	1,223	32%	64%	42	4.85	5.09	15	75	
		9H	5	1,195	1,138	57	210	218	27%	38%	40	0.85	0.88	30	52	
		Η7	0	1,674	1,656	18	200	201	6%	%6	46	0.91	0.91	50	45	
CNC Training Center		H8	Э	1,660	1,545	115	380	397	30%	32%	91	3.4	3.59	40	145	
Orange Peel/ Dave Murray	2/3 area	6H	4	1,674	1,433	241	1,140	1,165	21%	39%	43	4.87	3.32	40	135	
Bear Paw	2/3 area	H10	4	1,429	1,068	361	1,150	1,205	31%	43%	45	5.20	3.63	40	145	
Tokum	2/3 area	H11	5	1,350	1,095	255	860	897	30%	46%	54	4.66	3.24	30	95	
In Deep		H12	9	1,295	1,178	117	340	360	34%	51%	40	1.36	1.44	4	S	1/4 dens
Unsanctioned		H13	9	1,350	1,079	271	750	797	36%	57%	40	3.00	3.19	4	10	1/4 dens
Club 21		H14	9	1,552	1,452	100	300	316	33%	46%	40	1.20	1.26	4	5	1/4 dens
Side Order		H15	9	1,445	1,368	LL	200	214	39%	44%	40	0.80	0.86	4	5	1/4 dens
		H16	4	1,073	1,019	54	300	305	18%	24%	83	2.50	2.54	40	100	
Upper Olympic	1/3 area	B1	3	1,428	1,044	384	1,580	1,626	24%	32%	57	9.06	3.11	40	125	
Total Lift H		16	(not inc	cluding	B1)			9,905	(not in	cluding	B1)		43.15		1,195	2,400
Lift I - Olympic Chair																
		11	0	1,145	1,024	121	800	608	15%	20%	54	4.30	4.35	50	215	
Upper Fantastic		12	2	1,145	1,048	76	620	628	16%	20%	53	3.28	3.32	50	165	
Total Lift I		0						1,437					7.67		380	510
<u>Lift J</u> T_Bar Run		Ξ	"	1 06/1	1 787	187	002	243	75%	410%	56	400	4.13	07	165	
		5 5	0 0	1 010	1 797	127	260			2002	22		2 01	₽ ₹	150	
Did an Due		1 5	n v	1,919	1,/02	101	222	110	760/	0675	00	0.0	10.0	0 1		
Ruge Run		с :	0 4	1,000	1,042	171	200	0/0	10%0	0//UC	120	77.1	1.24	CI 7	02 6	
		, ;	0 (1,928	1,840	88	C/1 200	190	%0C	0000 2000	158	7.4T	0/-7 -	U 8	€ 8	
		с Ч	~ ~	0CV.1 070 1	1,8/9	110	007	2/1	30% 26%	%06 %95	80 80 80	1C.1 C1 0	رد.ا 47	12 20	08 041	
Total Lift J		9	þ					3,144					22.87	3	545	390
I ift K - Franz's Chair																
	1/3 area	Ξ	9	1,846	1,802	4	120	128	37%	48%	99	0.79	0.28	15	5	
	1/3 area	E	б	1,846	1,810	36	135	140	27%	32%	58	0.78	0.27	40	10	
	1/3 area	窃	З	1,846	1,630	216	1,350	1,367	16%	39%	23	3.08	1.04	40	40	
	1/3 area	臣	4	1,825	1,700	125	400	419	31%	38%	122	4.88	1.70	40	70	
Roundhouse Roll	1/3 area	В	5	1,825	1,775	50	350	354	14%	30%	37	1.28	0.43	30	15	
Pale Face	1/3 area	E6	7	1,787	1,679	108	240	263	45%	%69	64	1.54	0.56	20	10	
Porcupine	1/3 area	EJ	Э	1,675	1,615	60	355	360	17%	31%	68	2.40	0.81	40	30	
Fisheye	1/3 area	E8	ŝ	1,713	1,582	131	590	604	22%	37%	38	2.23	0.76	40	30	
Little Red Run	1/3 area	61	ŝ	1,716	1,617	66	340	354	29%	39%	34	1.17	0.41	40	15	
Upper Franz's Creek	1/3 area	E10	ŝ	1,735	1,601	134	500	518	27%	33%	55	2.76	0.95	40	40	
Old Man	1/3 area	E11	ŝ	1,740	1,580	160	680	669	24%	36%	34	2.33	0.80	40	30	
Franz's Meadow	1/3 area	E12	9	1,710	1,580	130	495 11.0	512	26%	52%	69 i	3.42	1.18	15	50	
Papoose	1/3 area	EI3	0 0	1,662	1,590	21	470	475	15%	20%	51	2.42	1.63	50	80	
Upper winskey jack Total Lift K	1/ 0 àica	10	∠ (not ine	cco,1 guibulc	1,002 partial tr	c/1 (slia	עכע,1	1,044	1/ 70 (not in	2770 Icluding	حد partial t	cu.4 (ails)	11.51	υc	رد 430	550
				•	•				,	•	-					



TABLE II.5 CONT'D WHISTLER MOUNTAIN SKI TRAIL INVENTORY EXISTING AREA – 2013/2014

				Be	vation	Total	Horz.	Slope]	Percen	t Slope	Avg.	Horz.	Slope Sk	kiers A	t Area	
Trail	Τ	rail	Skill	Top	Bottom	Vertical	Dist.	Dist.		ı	Width	Area	Area			Lift at
Name		No.	Class	Meters	Meters	Meters	Meters	Meters	Avg.	Steep. 1	Aeters	Ha.	Ha. De	ensity	Total	Area
Lift N - Symphony Expre	<u>88</u>	EN EN	c	030 C	1 579	2005	012 C	2 LV C	2102	7007	72	17 00	12.19	UV	202	
Unner Adiago		Ξŝ	υ 4	01010	1 623	20C 787	1 255	1 287	23%	43%	t %	4 12	4.73	99	170 170	
Lower Adiago		ΞΞ	- m	1.632	1.528	104	695	703	15%	29%	5 7	1.67	1.69	9	02	
Glissando		X	4	1,668	1,528	140	970	980	14%	26%	16	1.55	1.57	4	65	
	open bowl	N5	9	1,898	1,683	215	910	935	24%	54%	101	9.15	9.40	4	35	l/4 dens
Rhapsody Bowl Left	open bowl	N6	Г	1,934	1,720	214	705	737	30%	75%	81	5.73	5.99	5	30	l/4 dens
Rhapsody Bowl Right	open bowl	Z	5	2,020	1,705	315	1,240	1,279	25%	47%	222	27.47	28.34	8	215	l/4 dens
		$\mathbf{N}_{\mathbf{N}}^{\mathbf{N}}$	5	1,704	1,645	59	720	722	8%	16%	5	0.38	0.38	30	10	
Lower Flute (traverse-to)			9										51.60	0	75	l/10 der
Upper Flute (hike-to)			Г										27.47	0	55	l/10 der
Encore Ridge			9	1,773	1,532	241	1,070	1,097	23%	65%	18	1.92	1.97	4	5	l/4 dens
Total Lift N		11						10,163					145.82		1,255	1,710
<u>Lift Q - Fitzsimmons Expr</u>	ess		See L if	t ∆ Trai	2											
				r N 11a	q											
Total Lift Q		0						0					0.00		0	580
Olympic Beginner Zone																
CLC Carpet			1	1,026	1,024	7	28	28	7%	7%	35	0.10	0.10	75	10	
CLC Handletow I			1	1,035	1,026	6	95	95	%6	6%	25	0.24	0.24	75	20	
CLC Handletow II			-	1,032	1,023	6	95	95	%6	%6	25	0.24	0.24	75	20	
Olympic Carpet I			-	1,028	1,025	З	28	28	11%	11%	35	0.10	0.10	75	10	
Olympic Carpet I			1	1,048	1,031	17	190	191	%6	%6	35	0.67	0.67	75	50	
Walk-up zone			-										0.50	75	40	
Total Beginner Zone		9						438					1.85		150	290
Creeks ide Beginner Zone																
Creeks ide Carpet			1	664	657	7	40	41	18%	18%	35	0.14	0.14	75	10	
Total Beginner Zone		1						41					0.14		10	60
Other Trails																
Upper Sidewinder			ŝ	1,580	1,499	81	1,200	1,203	7%	8%	12	1.45	1.45	40	60	
Roundhouse-Peak Skiwa	١y		Э	1,830	1,775	55	410	414	13%	13%	11	0.44	0.44	40	20	
Peak Chair-Little Red Tra	lverse		З	1,780	1,756	24	290	291	8%	8%	6	0.27	0.27	40	10	
Peak Chair-Franz's Mead	ow Traverse		З	1,775	1,727	48	520	522	6%	%6	14	0.75	0.75	40	30	
Saddle-Burnt Stew			З	2,085	2,053	32	150	153	21%	21%	30	0.45	0.46	40	20	
Harmony-Saddle			5	2,105	2,088	17	220	221	8%	8%	10	0.23	0.23	30	5	
Total Other Trails		9						2,804					3.60		145	
Total All Lifts		183						133.5	km				756.9 H	B	17,180	17,990



.6 Mountain Capacity Analysis

Planning Parameters

The determination of an area's Skier Carrying Capacity (SCC) is perhaps the most critical step in ski area planning. Often referred to as the "comfortable carrying capacity" or the "skiers at one time" (SAOT), this figure represents the number of skiers that can be safely supported by an area's lift and trail system while providing a quality experience to each skier ability level. The skier carrying capacity is determined via an integration of lift capacity, acceptable slope densities, slope gradients, skier skill classifications and vertical metres of lift serviced terrain.

During the past several years, Ecosign has undertaken and reviewed substantial research dealing with skiing demand, skier skill distribution and skier densities. Each skier ability level places different demands upon an area's lift and trail system. Empirical observations have determined that each skier ability level will ski a relatively constant number of vertical metres per day.

Skier Skill Class Distribution

These reviews have also continued to support the bell curve distribution of skier skill levels, as illustrated below in Plate II.2.



SKIER SKILL CLASS DISTRIBUTION

PLATE II.2



Vertical Transport Metres

As a general rule, as the proficiency of the skier increases, the demand for vertical metres increases. Table II.6 lists the low, average and high levels of VTM demand used by Ecosign for different regions of the world.

Skill	Planning	Skier	Demand V1	ſM/Day
Classification	Goals	Low	Average	High
1 Beginner	5%	610	705	940
2 Novice	10%	1,370	1,595	2,120
3 Low Intermediate	20%	1,830	2,125	2,825
4 Intermediate	30%	2,440	2,830	3,770
5 High Intermediate	20%	3,290	3,840	5,085
6 Advanced	10%	3,840	4,460	5,935
7 Expert	5%	5,485	6,370	8,475
Weighted Average		2,582	3,001	3,989

TABLE II.6 SKIING DEMAND BY SKILL CLASSIFICATION

In Europe, western Canada and the western United States, we use the industry high VTM demand to ensure a quality, uncrowded skiing experience for the better conditioned, more aggressive skiers. The average level of demand is commonly found in Japan, while the low level of demand occurs where ski areas tend to be quite crowded. To ensure a high quality experience, we will use the industry high level of VTM demand for evaluating and planning Whistler Mountain.

Skier Densities

Based on the above mentioned review of various studies, we estimated skier densities which provide skiers with a high quality, comfortable experience, resulting in good memories and the likelihood of return visits. Densities used for planning ski areas in different parts of the world vary widely, due to the facilities the local skier has been conditioned to accept and the local land base, as illustrated in Plate II.3. In areas such as Europe, western Canada and the western United States, skier densities are relatively low compared to the densities found in ski areas in Japan or Australia, where skiers have been historically conditioned to higher densities. Densities in Japan are generally three times higher than densities in western North American destination resorts.

As shown in Table II.7, acceptable skier slope densities tend to decrease as the proficiency of the skier increases. The lower density for better skiers occurs due to their increased speed, and therefore longer stopping distances, and the general increase in space needed to avoid obstacles and other skiers. As shown, the exception to this rule is that slope densities increase slightly on expert terrain since



these steep, ungroomed slopes dictate controlled, short radius turns. Under these conditions, expert skiers have slower speeds and require less space for safe skiing.



SKIER DENSITY WORLDWIDE COMPARISON

PLATE II.3

Listed in Table II.7 are the "SAOT" (Skiers At One Time) or "At Area" densities, which are based on the total number of skiers at the ski area, including skiers in lift queues, riding lifts, in restaurants and on the ski trails. "On-Slope" densities are significantly lower and take into account only those skiers actually on the ski trails at any given time.

The densities shown will be used both in the evaluation of the existing and proposed trail capacities and the potential terrain carrying capacity of the additional slopes adjacent to the presently developed area. One important point to realize here is that even though all skiers pay the same rate, it is more costly for an operator to



provide an expert with adequate lifts and terrain than for a novice or intermediate skier. The planning parameters used for Whistler Mountain are listed in Table II.7.

C1-:11	61-41	Acceptable	Skier	Skier I	Densities
SKIII	SKIII	Terrain	Demand	Skiers	per Ha.
Classification	Mix	Gradients	VTM/Day	At Area	On Slope
1 Beginner	5%	8 - 15%	940	50	20
2 Novice	10%	15 - 25%	2,120	50	20
3 Low Intermediate	20%	25 - 35%	2,825	40	15
4 Intermediate	30%	30 - 40%	3,770	40	15
5 High Intermediate	20%	35 - 45%	5,085	30	12
6 Advanced	10%	45 - 60%	5,935	15	7
7 Expert	5%	60% +	8,475	20	10

TABLE II.7 WHISTLER MOUNTAIN PLANNING PARAMETERS

Ski Trails Capacity Analysis

In the analysis and planning for the Whistler Mountain ski trail system, we have used the skier densities listed in Table II.7. In order to determine the skier carrying capacity of each trail, we have multiplied the density of the skill level of skiers using a particular trail, with the slope area of the trail. In addition to the general specifications of the ski trails, Table II.5 lists the Whistler trail capacities. As listed, Whistler Mountain has a total trail capacity of approximately 17,990 skiers per day at the ideal densities chosen.

.7 Whistler Mountain Skier Carrying Capacity (SCC) Analysis

Lift Capacity Analysis

Utilizing the high industry skier vertical demand, we have calculated the skier carrying capacity (SCC) of Whistler Mountain's existing lift facilities, as listed in Table II.8. Based upon this analysis, we estimate that the lift system can comfortably accommodate approximately 17,990 skiers per day. The capacity analysis assumes that the waiting time for a lift is equal to the ride time for fixed grip lifts and the wait time is double the ride time for detachable grip lifts. Additionally, the VTM demand on each lift is determined by the terrain balance of the trails serviced by that lift. It should be noted that the lower mountain lifts, the Creekside Gondola, the Lower Village Gondola and the Fitzsimmons Express chairlift, are used less frequently for return cycle skiing (except on busy days with good lower mountain snow conditions). Therefore, the SCC of these lifts is significantly impacted by the number of people needing to use these lifts for staging and the "over-capacity" required for morning



staging and the calculated SCC's are limited by using only 35 percent of the rated capacity out of the village for return skiing. The resulting calculated SCC's then provide a reasonable balance with the return cycle skiing trails in that zone.

TABLE II.8 WHISTLER MOUNTAIN SKIER CARRYING CAPACITY EXISTING AREA – 2013/2014

Lift	Lift Name	Lift	Hourly	Vertical	VTM/Hr	VTM	Loading	Access	SCC	Mode 2	Mode 3
No.		Туре	Capacity	Meters	(000)	Demand	Effic.	Reduc.		SCC	SCC
Α	Lower Village Gondola	D10G	2,640	343	906	2,554	85%	65%	740	740	
В	Upper Village Gondola	D10G	2,640	814	2,149	2,969	85%	26%	3,180	3,180	3,180
C	Creekside Gondola	D6G	2,097	644	1,350	4,481	95%	31%	1,370	1,370	
D	Harmony Express	D6C	3,600	525	1,890	5,759	90%	12%	1,700		1,700
Е	Big Red Express	D4C	2,800	552	1,546	5,026	95%	15%	1,710	1,710	1,710
F	Emerald Express	D4C	2,535	424	1,075	3,264	95%	6%	1,990	1,990	1,990
G	Peak Chair	D4C	2,500	401	1,003	6,833	95%	4%	810		810
Н	Garbanzo Express	D4C	2,800	657	1,840	4,133	95%	17%	2,400	2,400	2,400
Ι	Olympic Chair	3C	1,656	126	209	2,120	80%	0%	510	510	510
J	T-Bars 1&2	2/T-B	1,515	178	270	4,277	95%	0%	390		390
Κ	Franz's Chair	3C	1,272	267	340	3,181	90%	12%	550	550	550
Ν	Symphony Express	D4C	2,400	508	1,219	4,075	95%	0%	1,710		1,710
Q	Fitzsimmons Express	D4C-B	1,850	343	635	2,554	95%	65%	580	580	580
	Creekside Carpet	MC	1,200	7	8				60	60	60
	CLC Carpet	MC	1,200	2	2				30	30	30
	CLC Handletow I	HT	669	6	2				40	40	40
	CLC Handletow II	HT	374	3	1				30	30	30
	Olympic Carpet I	MC	1,200	3	3				40	40	40
	Olympic Carpet II	MC	1,200	17	20				150	150	150
Tota			36,148		14,467				17,990	13,380	15,880

Note: Calculated access times for lifts A, C and Q are 3.3, 2.1 and 2.1 hours respectively

During the season there are days when either the lower and/or upper mountain is closed. The closure of the zones of the mountain affects the skier carrying capacity. When the upper mountain is closed and the Harmony (1,700 skiers), Peak (810 skiers), Symphony (1,710 skiers) and T-bars 1 & 2 (390 skiers) are not operating, Whistler's skier carrying capacity is reduced to about 13,400 skiers per day. Conversely, when the lower mountain is not skiable, the return skier carrying capacity of the Lower Village Gondola (1,070) and the Creekside Gondola (960) are not available and these lifts are used as staging lifts only. The skier carrying capacity is then 15,880 skiers per day. When both the lower and upper zones of the mountain are closed, Whistler Mountain's skier carrying capacity is reduced to just 11,270 skiers per day.

As discussed, it is extremely rare that weather, snow conditions, visitor demographics, etc., are harmonized in such a way that every zone of the ski area is



equally attractive to guests and skier distribution is uniform over the entire ski area. For this reason, the peak business day at Whistler Blackcomb are both approximately 82-87% of the calculated SCC; and on these days, Whistler definitely is considered to be at or near capacity. Peak days at Whistler have ranged between 12,280 and 15,960 in the last 6 years; 68% to 89% of the calculated SCC. Typically, on peak days, Whistler experiences significant lift lines on the access lifts (over 30 minutes on both the Whistler Gondola and Creekside Gondola) and on the upper mountain, lift lines can exceed 30 minutes on Harmony and 15 minutes on Emerald, Red and the Peak chair.

.8 Ski Trail Balance Statement

To accurately portray the terrain balance of the mountain complex, we computed the terrain available to each of the seven skier skill classifications and then multiplied by the skier densities exhibited in Table II.7. This exercise is often referred to as "area balancing" and provides management and the planning team with the data necessary to compare the mountain trail development with the apparent proportions of the skier market.

The Trail Balance By Lift System (Table II.9 and Plate II.4) portrays the relationship between each lift and trail system, as well as the proportionate amount of ski terrain available to each skier skill level on each lift. In general, the lift and trail capacities at Whistler Mountain are somewhat unbalanced with lift/trail systems which range from over lifted (too much lift capacity) to under lifted. The Creekside Gondola, Emerald Express, Olympic chair and Franz's chair are fairly well balanced, while the Upper Village Gondola, Garbanzo Express and Symphony Express have more lift capacity than trail capacity. Harmony, Big Red, the Peak Chair and the T-bars have large excesses of trail capacity. Days when the Peak Chair was closed were also examined to determine lift/trail balance and are also illustrated in Plate II.4. On these days, the Big Red Chair loses its excess of trail capacity (since many runs starting on the Peak end at the Red Express) and becomes quite well balanced.



TABLE II.9 WHISTLER MOUNTAIN TRAIL BALANCE BY LIFT SYSTEM -EXISTING AREA – 2013/2014

Lift No.	A & Q	В	С	D	E	F	G	Н	I	J	K	Ν	
Lift Name	Gondola &	Upper	Creekside	Harmony	Big Red	Emerald	The	Garbanzo	Olympic	T-Bars	Franz's	Symphony	
F	litzsimmons	Village	Gondola	Express	Express	Express	Peak	Express	Chair	1&2	Chair	Express	
Lift Type D	10G/D4C-B	D10G	D6G	D6C	D4C	D4C	D4C	D4C	3 C	2/T-B	3 C	D4C	
Lift Capacity	1,320	3,180	1,370	1,700	1,710	1,990	810	2,400	510	390	550	1,710	Skiers/Day
Trail Capacity	1,015	1,295	1,295	2,855	2,785	2,140	1,685	1,195	380	545	430	1,255	Skiers/Day
Trails:Lifts	77%	41%	95%	168%	163%	108%	208%	50%	75%	140%	78%	73%	
Average Densit	y 31.8	100.7	31.7	10.8	14.5	36.6	8.8	55.6	66.5	41.1	47.8	11.7	Skiers/Hectare
Optimum Densit	ty 43.8	41.7	34.2	27.0	30.7	39.8	21.6	34.6	50.0	29.7	40.4	34.6	Skiers/Hectare
Demand VTM	2,554	2,969	4,481	5,759	5,026	3,264	6,833	4,133	2,120	4,277	3,181	4,075	VTM/Skier/Day
Balance													
Beginner	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Novice	38%	27%	0%	0%	9%	9%	0%	4%	100%	0%	27%	0%	
Low Intermediat	te 62%	51%	0%	19%	20%	53%	1%	23%	0%	58%	45%	47%	
Intermediate	0%	11%	49%	19%	16%	27%	0%	32%	0%	0%	16%	19%	
High Intermedia	te 0%	10%	47%	6%	17%	11%	26%	31%	0%	0%	3%	18%	
Advanced	0%	0%	4%	22%	17%	0%	26%	10%	0%	37%	6%	9%	
Expert	0%	0%	0%	34%	21%	0%	46%	0%	0%	6%	2%	7%	
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	

WHISTLER MOUNTAIN TRAIL BALANCE BY LIFT SYSTEM EXISTING AREA – 2013/2014





TABLE II.10 WHISTLER MOUNTAIN CUMULATIVE SKI TRAIL BALANCE STATEMENT EXISTING AREA 2013/2014

Skill Classification	Hectares	Skiers	Balance	Ideal
1 Beginner	2.0	160	0.9%	5%
2 Novice	34.8	1,730	10.1%	10%
3 Low Intermediate	125.8	5,055	29.4%	20%
4 Intermediate	74.9	3,000	17.5%	30%
5 High Intermediate	114.4	2,700	15.7%	20%
6 Advanced	217.4	2,065	12.0%	10%
7 Expert	187.4	2,470	14.4%	5%
TOTALS	756.8	17,180	100%	100%
Average Density -	23.3 5	kiers/Hectar	·0	

Average Density =	23.3 Skiers/Hectare
Optimum Density =	33.6 Skiers/Hectare
Weighted Demand =	4,443 VTM/Skier/Day

WHISTLER MOUNTAIN SKI TRAIL BALANCE EXISTING AREA – 2013/2014



PLATE II.5



.9 Mountain Staging and Circulation

The efficient staging of skiers is a complex operation which requires sufficient facilities both on and off the mountain to allow visitors to park, dine, buy tickets, rent equipment and other necessities, and subsequently be distributed throughout the mountain's lift and trail systems. Large mountain complexes inevitably require several staging areas to handle peak traffic flows during the morning and afternoon staging periods. Skier staging to the ski area is somewhat analogous to pipelines (lifts) pumping (skiers) up the mountain to fill reservoirs (lift and trail systems). This is particularly relevant in the case of Whistler Mountain as the bulk of the skiing is located at the mid and upper elevations, which requires lifts with large rated capacities to be installed on the lower mountain simply to handle the large numbers of skiers moving to the upper elevations (even though much of the capacity goes unused once the morning staging period has finished).

Whistler Mountain has two major staging portals; the Village Portal with two main staging lifts (the Whistler Village Gondola at 2,640 pph and the Fitzsimmons Express at 1,850 pph) and Creekside with one lift the Creekside Gondola, operating at 2,097 pph. Taking into account loading inefficiencies, the upper mountain SCC of 15,300 skiers could theoretically be able to be staged up these three lifts onto the mountain in approximately 2.5 hours. It actually takes a bit longer as guests seem to prefer the Village Gondola to the Fitzsimmons Express. The Village Gondola is also the route used most often by winter sightseers. Often the line at the Village Gondola is much longer than at the Fitzsimmons Express indicating this preference.

.10 Snowmaking

Whistler Mountain has a limited combination air/water and fan gun system for producing snow on several trails. Snowmaking has historically been used on the mid and upper mountain in the rare events of low snowpack at those high elevations in early season. Snowmaking is more heavily used on the lower elevations, where snowpack is frequently an inadequate depth to stand up to the wear and tear of the huge amount of skier traffic during afternoon egress. This system has been installed and expanded in the last 30 years, including a network installed on the west side of the mountain to ensure good snow conditions for the World Cup Downhill (top of Orange Chair to the Creekside base installed in 1996) and for the 2010 Winter Olympics (installed in 2007-2009) to ensure snowpack for all the Olympic Alpine Skiing Events). Figure 9, the Existing Snowmaking Map, illustrates the snowmaking coverage at Whistler Mountain, as well as most of the pump buildings, valve stations, etc. It does not however, illustrate the actual water, air and electrical routes, hydrant locations or areas that are covered by snowmaking intermittently by stringing long hoses to areas without piping or electricity). As illustrated on Figure 9, snowmaking



covers approximately 117 hectares on terrain serviced by the Village Gondola, the Emerald Express, the Garbanzo Express, Big Red (except just off the top terminal) and the Creekside Gondola.

Historically, most of the snowmaking water was taken directly from Franz's Creek and either pumped directly to the snow guns or pumped into one of the two large snowmaking reservoirs located in the alpine. The upper reservoir, located above Harmony Bowl has a capacity of 45,425 m³ (12 million US gallons), while the lower reservoir, located just below the bottom of the Peak Chair has a capacity of 75,700 m³ (20 million US gallons). There is a second intake and pump station at Alder Creek, close to Olympic Station. In 2006, a third feed from Fitzsimmons Creek was installed to provide all the additional water required for snowmaking in the Alpine Skiing Venue and practice areas during the 2010 Winter Olympics. The new Fitzsimmons Creek intake is located at the Fitzsimmons Pumphouse above Base II on Blackcomb. The water extracted from Fitzsimmons Creek falls under Blackcomb's water license. A 400 mm diameter pipe was installed on Haul Back to bring the water down to the valley to feed the Whistler Mountain snowmaking system. This new intake can provide up to 22,700 m³/day (6 million US gallons per day). The amount of water used by Whistler Mountain for snowmaking varies widely from year to year depending on early season and lower mountain snow conditions; for example, in recent years, Whistler has used as much as 568,000 m³ of water (150 million US gallons) and as little as 265,000 m³ (70 million US gallons).

.11 Olympic Facilities

In February and March 2010, the Alpine Skiing events for the 2010 Olympic and Paralympic Winter Games were held on Whistler Mountain. VANOC and Whistler staff spent 3 years preparing the site for the Games, which included clearing a small area for new trails, regrading existing and new trails, adding snowmaking and communication lines, adding infrastructure for course safety, building a new finish/staging area (including all power, water, sewer, buildings, etc.) and installing a temporary chairlift for spectator access to the finish area. The finish area facilities were necessary to accommodate the hundreds of athletes and support staff, as well as the thousands of spectators that attended the alpine skiing events during the Games. The finish area facilities were removed after the Games, including the detachable quad chairlift connecting the finish area to the Creekside base. A small parking lot that has a capacity for approximately 125 cars has been constructed on the area used for the finish facilities. This lot is not currently in use.

The ski hill improvements to create the race courses, the safety fencing and the snowmaking and communication lines remain in place as a legacy. In addition to the work carried out for the runs within the Alpine Skiing Venue, Raven and Ptarmigan



received trail regrading and snowmaking upgrades to function as a practice area for the athletes. The Dave Murray National Training Centre has now been developed in this area to provide an ongoing legacy to developing athletes. In March 2012, the Canadian Alpine Skiing Championships were held using the new Dave Murray National Training Centre. The trails and snowmaking are discussed elsewhere in the inventory section of this report. The Olympic Facilities for Whistler Mountain are graphically illustrated on Figure 10.

.12 Skier Service Space Inventory and Analysis

Skier service facilities are those facilities which provide functions specifically related to the operation and management of the ski area. For planning purposes, these services can generally be broken down into three distinct categories:

Staging Facilities - those services that are required as skiers arrive at the area.

Commercial Facilities - those services required throughout the day as skiers are on the mountain and during après-ski hours.

Operational Facilities - those services not directly required by skiers but which are essential for the day-to-day operation of the ski area.

Staging facilities include ticket sales, public lockers, equipment rental and repair, ski school, and children's programs. These facilities are located in the base areas and should be sized in relation to the number of skiers staging through each base area. Equipment rental space can often be provided from leased premises within the resort village, reducing the capital investment costs for the mountain operator.

Commercial facilities are located both in the base area and on the mountain and include food and bar seating, kitchen and serving areas, restrooms and accessory retail space. Restaurant space in the base area does not always need to be owned by the mountain operator, if the restaurant space in the village and accommodation buildings at the base is located close enough to the lifts to be convenient for skiers to use during the day. Restaurants on the mountain are normally the responsibility of the mountain operator. Restaurant seats should be planned relative to the number of skiers circulating in the vicinity of the proposed restaurant sites. Kitchens and restrooms must be sized in proportion to the amount of seating proposed for each restaurant.



Operational facilities are generally "back of the house" services and include administration, employee lockers and ski patrol facilities. These facilities are located both on the mountain and in the base areas.

Skier Service Space Inventory

An inventory of the buildings and structures providing skier service facilities for Whistler Mountain was performed in October 2009 by Whistler personnel. Ecosign has summarized this information in Table II.11. The buildings have been grouped into 4 different skier zones; Whistler Village, Creekside, Mid-Mountain and Alpine. Forty percent of the skier service space for Whistler Mountain is provided in the alpine, with the majority located in the renovated Roundhouse building at the top of the Whistler Village gondola. Thirty-one percent of the skier service floor space is provided in Whistler Village either in the gondola building or in buildings adjacent to the gondola.



Roundhouse and PEAK 2 PEAK Gondola Terminal on Whistler Mountain



TABLE II.11 WHISTLER MOUNTAIN EXISTING SKIER SERVICE SPACE INVENTORY

Skier Zone			W	histler Vill	age		
	Village	Carleton	Pan	Springs	Westin	Ticket	Sub-total
	Station	Lodge	Pacific	Lane	leased	Kiosk	Whistler
	G1				space		Village
	m ²	m ²	m ²	m ²	m ²	m ²	m ²
Staging Facilities							
Ticket Sales	33.6		-			49.0	82.6
Public Lockers	29.0	130.6	-				159.6
Equipment Rental & Repair	344.0	270.3	204.4		68.9		887.6
Guest Services / Ski School	93.8	57.6	-				151.4
Children's Programs/Daycare	110.2	-	-		80.0		190.2
Sub-total Staging	610.6	458.5	204.4	-	148.9	49.0	1,471.4
Commercial Facilities							
Food & Beverage Seating	245.6		-				245.6
Kitchen & Scramble	180.7	25.0	-				205.7
Rest Rooms	87.7	41.0	-				128.7
Accessory Retail	9.5	337.1	347.9		373.3		1,067.8
Sub-total Commercial	523.5	403.1	347.9	-	373.3	-	1,647.8
Operational Facilities							
Administration	356.7	53.0					409.7
Employee Facilities	24.2	-		1,178.9			1,203.1
First Aid & Ski Patrol	-	-	-				-
Sub Total Operational	380.9	53.0	-	1,178.9	-	-	1,612.8
Total Functional Space	1,515.0	914.6	552.3	1,178.9	522.2	49.0	4,732.0
Storage	37.6	-	-				37.6
Mechanical/Circulation/Walls/Waste	183.1	-	-	65.0		2.0	250.1
Total Skier Service Space	1,735.7	914.6	552.3	1,243.9	522.2	51.0	5,019.7
Percent of Total Space	11%	6%	3%	8%	3%	0%	31%
Restaurant Seating		Bike &					
Restaurants	GLC	Bean					
Indoor Seats	160						160
Outdoor Seats	176	115					291



TABLE II.11 CONT'D WHISTLER MOUNTAIN EXISTING SKIER SERVICE SPACE INVENTORY

Skier Zone		Whistler	· Creeksid	e
	Dusty's	The	Franz's	Sub-total
		Legends	Trail	Whistler
				Creek
	m ²	m ²	m ²	m ²
Staging Facilities				
Ticket Sales		39.8		39.8
Public Lockers	-	305.5	68.6	374.0
Equipment Rental & Repair	-		220.0	220.0
Guest Services / Ski School	-	162.3		162.3
Children's Programs/Daycare	-	-	235.1	235.1
Sub-total Staging	-	507.5	523.7	1,031.2
Commercial Facilities				
Food & Beverage Seating	638.1	-	135.9	774.0
Kitchen & Scramble	271.6	-		271.6
Rest Rooms	104.2	-	78.3	182.5
Accessory Retail	-		244.2	244.2
Sub-total Commercial	1,013.9	-	458.4	1,472.3
Operational Facilities				
Administration		132.6	526.5	659.1
Employee Facilities	-		170.0	170.0
First Aid & Ski Patrol	-	-	-	-
Sub Total Operational	-	132.6	696.5	829.1
Total Functional Space	1,013.9	640.1	1,678.6	3,332.6
Storage			649.4	649.4
Mechanical/Circulation/Walls/Waste		16.1	167.8	183.9
Total Skier Service Space	1,013.9	656.2	2,495.8	4,165.9
Percent of Total Space	6%	4%	16%	26%
Restaurant Seating				
Restaurants	Dusty's		W.Kids	
Indoor Seats	356		90	446
Outdoor Seats	318			318



TABLE II.11 CONT'D WHISTLER MOUNTAIN EXISTING SKIER SERVICE SPACE INVENTORY

Skier Zone		Mi	d Mounta	in	
	Children's	Beaver	Chic	Raven's	Sub-total
	Learning	Tails	Pea	Nest	Mid
	Centre				Mountain
	m ²				
Staging Facilities					
Ticket Sales	-			-	-
Public Lockers	-			-	-
Equipment Rental & Repair	-			-	-
Guest Services / Ski School					-
Children's Programs/Daycare	200.0			-	200.0
Sub-total Staging	200.0	-	-	-	200.0
Commercial Facilities					
Food & Beverage Seating	241.3		195.0	90.3	526.6
Kitchen & Scramble	139.4	32.0	69.7	17.4	258.5
Rest Rooms	92.9		46.5	29.3	168.7
Accessory Retail	-			-	-
Sub-total Commercial	473.6	32.0	311.2	137.0	953.8
Operational Facilities					
Administration	55.7			-	55.7
Employee Facilities	-			-	-
First Aid & Ski Patrol	-			-	-
Sub Total Operational	55.7	-	-	-	55.7
Total Functional Space	729.3	32.0	311.2	137.0	1,209.5
Storage	5.5	9.0	11.1	38.9	64.5
Mechanical/Circulation/Walls/Waste	8.4	3.0	12.2	40.5	64.1
Total Skier Service Space	743.2	44.0	334.5	216.4	1,338.1
Percent of Total Space	5%	0%	2%	1%	8%
Restaurant Seating		Beaver	Chic	Raven's	
Restaurants	CLC	Tails	Pea	Nest	
Indoor Seats	220		118	65	403
Outdoor Seats		24	108	70	202



TABLE II.11 CONT'D WHISTLER MOUNTAIN EXISTING SKIER SERVICE SPACE INVENTORY

Skier Zone					Alpiı	Je				
	Round	Alpine	Guest	Ski	CanSki	Ski	Peak		Harmony	Sub-total
	House	Maint.	Info	School	Demos	Storage	Patrol	Nestle's	Tea	Alpine
		Building	Kiosk	Building	Hut	Locker	Hut	Hut	House	
	m^2	m^2	m^2	m^2	m^2	m^2	m^2	m^2	m^2	m^2
Staging Facilities										
Ticket Sales	I	I			I				·	•
Public Lockers	ı	ı		i	I	18.6			ı	18.6
Equipment Rental & Repair	I	ı			74.0				I	74.0
Guest Services / Ski School	37.2		7.6	130.0						
Children's Programs/Daycare	I	-			I				-	-
Sub-total Staging	37.2	•	7.6	130.0	74.0	18.6	•		•	92.6
Commercial Facilities										
Food & Beverage Seating	2,062.4			ı	I				10.0	2,072.4
Kitchen & Scramble	655.0			I	I			55.7	5.0	715.7
Rest Rooms	492.4			ı	ı				10.0	502.4
Accessory Retail	92.9	ı			I				ı	92.9
Sub-total Commercial	3,302.7	•		•	•		•	55.7	25.0	3,383.4
Operational Facilities										
Administration	55.7	403.0							I	458.7
Employee Facilities	55.7	10.0		I	I				I	65.7
First Aid & Ski Patrol	9.3	175.0		ı	I		30.0		15.0	229.3
Sub Total Operational	120.7	588.0		•		•	30.0		15.0	753.7
Total Functional Space	3,460.6	588.0	7.6	130.0	74.0	18.6	30.0	55.7	40.0	4,229.7
Storage	125.4	41.8		ı	I					167.2
Mechanical/Circulation/Walls/Waste	1,059.1	I		25.0	I				-	1,084.1
Total Skier Service Space	4,645.1	629.8	7.6	155.0	74.0	18.6	30.0	55.7	40.0	5,481.0
Percent of Total Space	29%	4%	0%	I%	0%	0%	0%	0%0	0%	34%
Restaurant Seating	Pika's									
Restaurants	Steeps									
Indoor Seats	1,505								10	1,515
Outdoor Seats	512									512





Village Gondola Base Terminal including Garibaldi Lift Company restaurant



Children's Learning Centre near Olympic Station (CLC)



Table II.12 summarizes the total skier service space provided at Whistler Mountain. There is currently almost 16,000 m² dedicated to skier services at Whistler Mountain, not including restaurants or equipment rental shops operated by others that are in close proximity of the staging lifts in Whistler Village. Fifty five percent of the staging facilities are provided in Whistler Village with the remaining forty five percent provided in the redeveloped Creekside base.

TABLE II.12 WHISTLER MOUNTAIN SKIER SERVICE SPACE INVENTORY SUMMARY

	Sub-total	Sub-total	Sub-total	Sub-total	Total
	Whistler	Whistler	Mid	Alpine	Whistler
	Village	Creek	Mountain		Mountain
	m ²				
Staging Facilities					
Ticket Sales	82.6	39.8	-	-	122.4
Public Lockers	159.6	374.0	-	18.6	552.2
Equipment Rental & Repair	887.6	220.0	-	74.0	1,181.6
Guest Services / Ski School	151.4	162.3	-		313.7
Children's Programs/Daycare	190.2	235.1	200.0	-	625.3
Sub-total Staging	1,471.4	1,031.2	200.0	92.6	2,795.2
Commercial Facilities					
Food & Beverage Seating	245.6	774.0	526.6	2,072.4	3,618.6
Kitchen & Scramble	205.7	271.6	258.5	715.7	1,451.5
Rest Rooms	128.7	182.5	168.7	502.4	982.3
Accessory Retail	1,067.8	244.2	-	92.9	1,404.9
Sub-total Commercial	1,647.8	1,472.3	953.8	3,383.4	7,457.3
Operational Facilities					
Administration	409.7	659.1	55.7	458.7	1,583.2
Employee Facilities	1,203.1	170.0	-	65.7	1,438.8
First Aid & Ski Patrol	-	-	-	229.3	229.3
Sub Total Operational	1,612.8	829.1	55.7	753.7	3,251.3
Total Functional Space	4,732.0	3,332.6	1,209.5	4,229.7	13,503.8
Storage	37.6	649.4	64.5	167.2	918.7
Mechanical/Circulation/Walls/Waste	250.1	183.9	64.1	1,084.1	1,582.2
Total Skier Service Space	5,019.7	4,165.9	1,338.1	5,481.0	16,004.7
Percent of Total Space	31%	26%	8%	34%	
Restaurant Seating					
Restaurants					
Indoor Seats	160	446	403	1,515	2,524
Outdoor Seats	291	318	202	512	1,323





Village Gondola Rental Shop

Skier Service Space Analysis

Table II.13 lists Ecosign's planning standards for the amount of skier service space recommended per skier for each of the 12 skier service functions at a day skier area and a destination resort and also shows the average of these two standards. These standards have been developed over several years and incorporate data from destination resorts in Europe, North America and Asia. The standards are used as a benchmark to evaluate the amount of existing skier services provided at a resort. It should be noted that these planning standards are average requirements and specific conditions at a resort may dictate skier service space requirements, substantially different from these guidelines. We are generally comfortable with a 50 percent variance above or below the recommended standards depending on local market conditions.



TABLE II.13 ECOSIGN DESIGN STANDARDS THEORETICAL FLOORSPACE PER SKIER

	Square Meters				
	Ski	Average	Resort		
Skier Service Function	Area		Area		
Staging Facilities					
Ticket Sales	0.009	0.012	0.014		
Public Lockers	0.065	0.088	0.111		
Equipment & Repair	0.074	0.084	0.093		
Guest Services/Ski School	0.023	0.035	0.046		
Children's Programs	0.033	0.039	0.046		
Subtotal Staging	0.204	0.258	0.311		
Commercial Facilities					
Food Service Seating	0.300	0.350	0.400		
Kitchen & Scramble	0.139	0.163	0.186		
Restrooms	0.070	0.081	0.093		
Accessory/Retail Sales	0.037	0.053	0.070		
Subtotal Commercial	0.546	0.647	0.748		
Operational Facilities					
Administration	0.056	0.074	0.093		
Employee Facilities	0.028	0.037	0.046		
First Aid & Ski Patrol	0.023	0.028	0.033		
Subtotal Operational	0.107	0.139	0.172		
Total Functional Space	0.857	1.044	1.231		
Storage @ 10%	0.086	0.104	0.123		
Circ./Walls/Waste/Mech. @ 15%	0.129	0.157	0.185		
Total Built Space	1.071	1.305	1.539		

The Existing Skier Service Space Use Analysis presented in Table II.14 compares the existing skier service space at Whistler Mountain with Ecosign's planning standards for destination resorts. This analysis has been carried out assuming a design day for most skier services of 12,450 skiers, which represents the average number of skier visits recorded on Whistler Mountain during the 15 busiest days over the last 6 ski seasons, excluding the 2009/10 season which was affected by the Winter Olympics. A design day somewhat less than the peak day is used since we feel that it is not necessary to "build the church for Easter Sunday". With a design day set at the average of the top 15 days, we can expect about 6 to 9 days per season to exceed that level of visits. For the design condition, overall functional skier service space provided is approximately eighty eight percent of the resort standard, suggesting Whistler Mountain could comfortably service approximately 11,000 skiers. Looking at the individual categories, there appears to be a shortage of public locker, guest service, food services and ski patrol and surpluses in the areas of



employee facilities and accessory retail. Plate II.6 illustrates the Whistler Mountain Space Use Balance.

TABLE II.14 WHISTLER MOUNTAIN EXISTING SKIER SPACE USE ANALYSIS AVERAGE TOP 15 DAYS 2006/07 TO 2013/14 = 12,450 SKIERS/DAY

	Ecosign	Existing	Existing	Percent	Theoretical
	Resort	Floor	Space	of	Skiers
	Area	space	per	Standard	Served
	Standards		Skier		
	m²/skier	m ²	m²/skier		
Staging Facilities					
Ticket Sales	0.014	122.4	0.010	71%	8,781
Public Lockers	0.111	552.2	0.044	40%	4,953
Equipment Rental & Repair	0.093	1,181.6	0.095	102%	12,719
Guest Services / Ski School	0.046	313.7	0.025	54%	6,753
Children's Programs/Daycare	0.046	625.3	0.050	108%	13,462
Sub-total Staging	0.311	2,795.2	0.225	72%	8,981
Commercial Facilities					
Food & Beverage Seating	0.400	3,618.6	0.291	73%	9,047
Kitchen & Scramble	0.186	1,451.5	0.117	63%	7,812
Rest Rooms	0.093	982.3	0.079	85%	10,574
Accessory Retail	0.070	1,404.9	0.113	162%	20,163
Sub-total Commercial	0.748	7,457.3	0.599	80%	9,965
Operational Facilities					
Administration	0.093	1,583.2	0.127	137%	17,041
Employee Facilities ^{1.}	0.046	1,438.8	0.116	249%	30,975
First Aid & Ski Patrol	0.033	229.3	0.018	57%	7,052
Sub Total Operational	0.172	3,251.3	0.261	152%	18,917
Total Functional Space	1.231	13,503.8	1.085	88%	10,966
Storage	0.123	918.7	0.074	60%	7,460
Mechanical/Circulation/Walls/Waste	0.185	1,582.2	0.127	69%	8,565
Total Skier Service Space	1.539	16,004.7	1.286	84%	10,397

NOTE: 1. Employee Facilities in the Springs building are used by both Whistler & Blackcomb staff.







PLATE II.6

Since the merger of Whistler and Blackcomb in 1997, many of the skier service facilities are utilized by guests and employees of both mountains, such that it is difficult to precisely separate the two. A skier may stage from the base that is closest to his accommodation and then make their way to the other mountain at some point in the day. With the PEAK 2 PEAK Gondola connecting the alpine areas, this movement between the two mountains has increased significantly over the past two seasons. An analysis of the skier service space for the combined Whistler Blackcomb ski area is provided in Table II.15. This analysis was carried out using a Design Day of 22,490 skiers which is equal to the average of the top 15 days occurring over each of the past 6 seasons. The combined ski area exhibits a similar shortage in staging facilities such as public lockers and guest services/ski school space. Food and beverage facilities are adequate for about 66 to 69% of the design day while there appears to be more than enough accessory retail space. Although administration and employee space appears to be higher than the design standard, Whistler Blackcomb



provides locker facilities at the mountain base areas for a high proportion of their employees, which allows the employees to use local transit to get to work.

TABLE II.15 WHISTLER BLACKCOMB COMBINED EXISTING SKIER SPACE USE ANALYSIS AVERAGE TOP 15 DAYS 2006/07 TO 2012/13 = 22,640 SKIERS/DAY

	Ecosign	Existing	Existing	Percent	Theoretical
	Resort	Floor	Space	of	Skiers
	Area	space	per	Standard	Served
	Standards		Skier		
	m²/skier	m ²	m²/skier		
Staging Facilities					
Ticket Sales	0.014	186.2	0.008	59%	13,359
Public Lockers	0.111	688.5	0.030	27%	6,176
Equipment Rental & Repair	0.093	1,800.6	0.080	86%	19,382
Guest Services / Ski School	0.046	543.1	0.024	52%	11,692
Children's Programs/Daycare	0.046	893.1	0.039	85%	19,227
Sub-total Staging	0.311	4,111.5	0.182	58%	13,211
Commercial Facilities					
Food & Beverage Seating	0.400	6,277.5	0.277	69%	15,694
Kitchen & Scramble	0.186	2,765.3	0.122	66%	14,883
Rest Rooms	0.093	1,585.6	0.070	75%	17,068
Accessory Retail	0.070	1,757.1	0.078	111%	25,218
Sub-total Commercial	0.748	12,385.5	0.547	73%	16,550
Operational Facilities					
Administration	0.093	3,502.2	0.155	167%	37,697
Employee Facilities	0.046	1,929.5	0.085	183%	41,538
First Aid & Ski Patrol	0.033	850.3	0.038	116%	26,150
Sub Total Operational	0.172	6,282.0	0.277	161%	36,551
Total Functional Space	1.231	22,779.0	1.006	82%	18,497
Storage	0.123	1,183.8	0.052	42%	9,613
Mechanical/Circulation/Walls/Waste	0.185	2,226.5	0.098	53%	12,053
Total Skier Service Space	1.539	26,189.3	1.157	75%	17,013



Food Service Seating

Whistler Mountain is currently serviced by a variety of on-mountain food service facilities, ranging from cafeteria style offerings at the Roundhouse, Chic Pea and Raven's Nest to table service provided at Steep's Grill, the GLC and Dusty's. In addition, skiers can come down into Whistler Village to eat at several restaurants in close proximity to the lifts. An inventory of the available seating in restaurants operated by Whistler Mountain was prepared by the Food & Beverage manager and is presented in Table II.16. Currently, Whistler Mountain has 606 indoor seats in the valley and 1,918 indoor seats on the mountain (including the 220-seat lunch facility for children in ski school programs at Olympic Station and the 90-seat lunch facility for children at Creekside). Additionally, there are 609 outdoor seats in the valley and 690 outdoor seats on the mountain that can be used on sunny days. It should be noted that independently operated facilities in the valley such as the Longhorn, Black's and Dublin Gate which are located at the snowfront have not been included and would likely double the lunchtime food service capacity in the valley.

To estimate the theoretical comfortable capacity of these restaurants to provide lunch to skiers, an average "turns per seat" over the typical 2 hour lunch period has been assigned to each facility. These "turns per seat" estimates were provided by Whistler Blackcomb F&B management team based on the type of service provided at each facility. Using these estimates, we calculated that the indoor seating can accommodate 1,146 skiers in the valley (17% of total) and 5,454 skiers on the mountain (83%), while the outdoor seating can accommodate 1,725 on-mountain and 938 in the valley. As the busiest days on Whistler Blackcomb usually occur during the Christmas holidays and President's Week in mid-February, when weather conditions are not typically comfortable enough for outdoor seating, the practical total seating capacity during peak periods is limited to the indoor seats (6,600 total capacity).

Since the alpine SCC accounts for about 85 percent of the mountain's carrying capacity, we would anticipate that of the 14,500 skiers on the peak day, about 12,400 skiers would be skiing on the upper mountain. The 1,918 indoor on-mountain restaurant seats can service 5,454 skiers; only about 44% of the peak business levels. Total indoor food service capacity including facilities in the valley (6,600 skiers) is about 46% of the overall peak day business (14,500). If we include the independently operated food and beverage outlets in Whistler Village that are close to the lifts, this number could perhaps be around 57% (assuming these 3 facilities have an indoor seating capacity of 1,250 people over the lunch period). Even with these facilities included, Whistler Mountain falls quite short of the industry standard which is generally in the 65-75% range (the "Design Day" for food services, which differs slightly from the design day for other skier services). Even with the uncounted



Village seats, to meet a "70% Design Day" threshold, Whistler Mountain would require an additional 950 food service seats (at 3 turns/seat), all located on-mountain. The shortage of upper mountain seating means that the on-mountain restaurants can be uncomfortably crowded on typical weekends during the peak season. Management has taken steps to alleviate the shortage by encouraging skiers to eat lunch outside the peak period of 11:30 a.m. to 1:30 p.m. and scheduling early lunches for ski school programs operating out of the Roundhouse.

	Evicting Counted Sector			Turns per Seat		Theoretical Capacity (Skiers)			
	Existin	ig Countee	1 Seats	Peak Periods		Peak Periods			
WHISTLER	Inside	Outside	Total	Inside	Outside	Inside	Outside	Total	
Valley Seats									
Dusty's Bar	288	274	562	1.7	1.2	490	329	819	
Dusty's Cafe	68	44	112	3.0	2.5	204	110	314	
Whistler Kids Creekside	90	-	90	2.0		180		180	
Garbanzo Bike & Bean	-	115	115	3.0	2.5	-	288	288	
GLC	160	176	336	1.7	1.2	272	211	483	
Valley Total	606	609	1,215	1.9	1.5	1,146	938	2,083	
On-Mountain Seats									
Roundhouse Lodge	1,382	450	1,832	3.0	2.5	4,146	1,125	5,271	
Steep's	123	62	185	1.7	2.5	209	155	364	
Raven's Nest	65	70	135	3.0	2.5	195	175	370	
Chic Pea	118	108	226	3.0	2.5	354	270	624	
Harmony Tea House	10		220	n.a.	n.a.				
Children's Learning Centre	220	-	220	2.5		550		550	
On-Mountain Total	1,918	690	2,818	2.8	2.5	5,454	1,725	7,179	
TOTAL WHISTLER	2,524	1,299	4,033	2.6	2.0	6,600	2,663	9,262	
BOTH MOUNTAINS	5,016	2,241	7,522	2.7	2.1	13,453	4,719	18,172	

TABLE II.16 WHISTLER MOUNTAIN EXISTING RESTAURANT SEAT INVENTORY AND ANALYSIS

.13 Parking and Accommodation

Base Area Accommodation Inventory

The Resort Municipality of Whistler (RMOW) measures its accommodation capacity in bed units, with one bed unit representing accommodation for one person. The developed bed unit inventory was updated in 2010 as part of the work done for the new Official Community Plan, adopted in 2013. At the end of 2010, the developed bed unit inventory was estimated at 53,098 of an approved capacity of 61,273. The OCP proposes a bed unit limit of 61,750 for lands within the RMOW.



Ecosign has prepared the following estimate of the current (2013) Dwelling and Bed Unit Inventory from information available from a range of sources. Most of the remaining undeveloped hotel units are located on the Holburn Tennis Centre site and are in the process of being rezoned for tourist accommodation in the form of townhouses. Table II.17 summarizes the 2013 Dwelling and Bed Unit Inventory. The Cheakamus Crossing, Baxter Creek and Rainbow neighbourhoods have undeveloped sites for market tourist accommodation in the form of townhouses and apartments. There are also several approved development sites for single family homes in the Rainbow, Baxter Creek, Kadenwood, Stonebridge, Lakecrest and Cypress Place developments as well a few lots scattered throughout the more mature neighbourhoods. There are undeveloped resident housing sites in Spring Creek, the Blackcomb Benchlands, Cheakamus Crossing and Alta Lake Road.

	Developed		Undev	veloped	Totals		
	Units	Bed Units	Units	Bed Units	Units	Bed Units	
Single Family	2,633	15,798	470	2,820	3,103	18,618	
Duplex	461	2,766	16	96	477	2,862	
Multi-Family	3,827	14,055	334	1,167	4,161	15,222	
Tourist Accommodation	2,819	6,946	298	2,098	3,117	9,044	
Pension	141	236	3	6	144	242	
Hotel	3,345	6,933	400	1,037	3,745	7,970	
Employee/Resident Restricted	1,796	6,080	224	664	2,020	6,744	
RV/Campsites	156	228	-	10	156	238	
Hostel	330	189	32	144	362	333	
TOTAL	15,508	53,231	1,777	8,042	17,285	61,273	

TABLE II.17WHISTLER VALLEY DWELLING & BED UNIT INVENTORY – 2013

Skiers from Beds

By making assumptions of bed unit occupancy and skier participation rates, we can estimate the number of skiers generated by the accommodation during peak periods. Ecosign's experience at other resorts has provided the following observations which have been used to guide our estimates:

• Even though a hotel room or chalet is rented, not every bed in it may be occupied. For example a house capable of sleeping ten may be rented by a group of seven, or one couple may occupy a hotel room with four pillows.



• Not all of the guests staying at the resort may elect to ski or snowboard on any given day. Some of the guests may be non-skiers along with the family, some may be pursuing another of the many alternative winter activities around the resort and some may not ski because it is the day they are leaving the resort.



Accommodation at Creekside

Tourism Whistler tracks the occupancy of commercial units offered for nightly rental through its central reservation system. This tracking system includes hotels, condotels, townhouses, chalets and pension style accommodation that are actively rented. Winter (November 1 to April 30) room nights sold and winter season occupancy rates peaked in the 2000/2001 ski season and have remained relatively flat since then, fluctuating with the snow conditions. The opening of the Four Seasons, Four Seasons Residences, Pan Pacific Two, the condotel projects at Creekside and the Nita Lake Lodge have increased the supply of commercial units, resulting in slightly lower winter season occupancy rates. These have improved over the last few seasons, however, still have not reached the historic highs.



During the period between Christmas and New Year and President's Week (mid February), peak daily unit occupancy rates have been up to 96 percent for the 8,000 rooms/units in Tourism Whistler's commercial accommodation inventory. This information was used as a guide in establishing the bed unit occupancy and skier participation rates for the various property categories, as outlined in Table II.18. With the exception of hotels and pensions, the other unit types can all be either a home for a permanent or seasonal resident, a second home or a vacation rental property. The assumed bed unit occupancy rates must reflect the blend of user categories during peak periods such as Christmas, Presidents' Week and March Break.



Looking up at Whistler Mountain Ski Out from Village Base



TABLE II.18						
PEAK PERIOD OCCUPANCY RATES AND SKIER YIELDS						
WINTER 2012/13						

	Hotel	ТА	Multi	Single	Resident
	Hostel	Camp-	Family	Family	Restricted
	Pension	ground		Duplex	
Bed Unit Occupancy Rate	90%	75%	70%	50%	90%
Skier Participation Rate	80%	80%	60%	50%	25%
Skier Yield	72%	60%	42%	25%	23%

Using the skier yields listed above, the number of skiers that could be generated from accommodation within the Whistler Valley on a peak day is 21,520 skiers, as shown in Table II.19. Skiers from accommodation in the entire Whistler Valley have been grouped by location within the valley. For instance, the "south of Creekside" grouping includes Cheakamus Crossing, Spring Creek, Function Junction, Bayshores, Millar's Pond, Twin Lakes and the southern properties accessed from Alta Lake Road, whereas "north of Village" includes Montebello, White Gold, Tapleys, Whistler Cay Heights, Barnfield, Nesters, Nicklaus North, Alpine, Emerald and the northern properties along Alta Lake Road.

TABLE II.19WHISTLER VALLEY ACCOMMODATION SKIER YIELDPREDICTED BY BED UNIT OCCUPANCY - PEAK DAY - 2013/14 SKI SEASON

	Hotel	TA	Multi	Single	Resident	
	Hostel	Camp-	Family	Family	Restricted	Skiers
	Pension	ground		Duplex		
South of Creekside	34	52	1,474	2,130	2,020	1,660
Creekside	-	1,746	858	1,518	322	1,860
Between Creekside & Village	142	1,062	3,431	3,786	543	3,250
Whistler Village	3,869	585	392	-	-	3,300
Upper Village	1,674	2,652	3,317	282	742	4,430
Village North	1,390	850	1,831	-	29	2,290
North of Village North	249	227	2,752	10,848	2,424	4,730
Totals	7,358	7,174	14,055	18,564	6,080	21,520

In addition to the skiers coming from accommodation within the resort, there are also day skiers who come from elsewhere in the region to ski for the day and destination visitors who ski on the day they arrive in Whistler. The number of day skiers arriving from outside of Whistler is difficult to estimate. In 1997, Ecosign



conducted a lift base survey as part of the RMOW Comprehensive Transportation Strategy (Whistler CTS) project. On a Saturday in mid-February (not the peak day), skiers entering the staging lift queues were asked whether they were day skiers, residents, overnight visitors or second home owners. Nineteen percent of those asked identified themselves as day skiers. The RMOW repeated this survey on 8 weekend days in 2002 and seventeen percent identified themselves as day skiers. This type of survey has not been carried out since then. The highway improvements completed for the 2010 Olympics have made it easier and safer for day skiers from the Lower Mainland to come to Whistler so it is possible that day skier numbers could be higher with the right conditions (fresh snow and sunshine). If we assume the combination of day skiers and destination skiers skiing on the day they arrive at the resort range from 20 to 30 percent of all skiers, the peak day visitation levels could be in the 27,250 to 31,450 level. Historically, a peak day of 27,372 skiers occurred during the 2001/2002 season and there have only been a handful of days with over 27,000 skiers since then.

Parking

Day skier parking in Whistler is currently provided in three general locations.

- 1. The Village Day Lots (P1 through P5) are located in the Fitzsimmons Creek floodplain between Blackcomb Way and the creek, as shown on Figure 11a. Lots 1, 2 and a portion of Lot 3 are within a comfortable walking distance of the Whistler Mountain Village staging lifts and the Blackcomb Excalibur and Wizard staging lifts. Lots 4 and 5 are beyond a comfortable skier walking distance to the lifts, however Whistler Blackcomb operate a free shuttle from these lots to the Village transit loop and the Blackcomb Wizard base. Historically these lots were owned by the Province and used by Whistler Blackcomb for the purpose of providing parking to support the ski operations. In 2008, the RMOW took over ownership of the Village lots from the Province with a commitment that the first use of the lots would remain as skier parking followed by parking for the community as a whole. Since Whistler Blackcomb has an obligation to the Province to continue to provide day skier parking, operation of the Village day lots is managed by the ski area and parking revenues are collected by the RMOW.
- 2. At Creekside, a three and a half level underground parking structure provides 1,268 stalls for skier parking, as shown on Figure 11b. The surface level, as well as a portion of the first underground level contains an additional 164 stalls for short duration commercial parking. The surface level is also used for ski school drop-off, over height vehicles, commercial



loading, charter bus parking and a taxi stand. The Creekside parkade is owned and operated by Whistler Blackcomb. With the PEAK 2 PEAK gondola connecting the two mountains, skiers from the south can park at Creekside and ski Blackcomb.

3. On Blackcomb, the ski area has a commitment with the Province and the RMOW to provide 1,500 skier parking stalls. These stalls are currently located on Crown land within Blackcomb Mountain's Controlled Recreational Area at Base II in Lots (P6 through P8), as well as approximately 190 stalls along the road that are used on peak days. Skiers who park at Base II can either stage up Blackcomb on the second stage of the Excalibur lift or ski down to the Village to access Whistler Mountain.

The existing skier parking lot inventory for the 2013/14 season is listed in Table II.20. At Base II and in Lot 5, the number of stalls shown reflects the use of parking lot attendants to achieve maximum parking densities. In the summer of 2009, the RMOW paved Lots 1 through 4 and instituted pay parking on Village Lots 1 through 3 in June 2010. The number of stalls shown for these lots reflects the stalls delineated on the pavement. Since the drive aisles are generous, on peak days, the parking attendants can achieve higher capacities by reducing the circulation space. The village lots are also used by village employees and shoppers. We have estimated the percent of cars that are skier cars for each of the lots based on previous studies. There have been no recent parking lot entrance or exit surveys. As shown in Table II.19, the existing day skier parking lots can supply approximately 11,000 skiers.



		Number	Average	Percent	Skiers
	Area	Of	People	Skier	from
	(ha.)	Stalls	per Car	Cars	Parking
Creekside	n.a.	1,268	2.5	98%	3,107
Village Day Skier Lots					
Lot 1 - Paved	0.73	213	2.5	80%	426
Lot 2 - Paved	0.86	257	2.5	80%	514
Lot 3 - Paved	1.34	387	2.5	92%	890
Lot 4 - Paved	2.25	742	2.5	90%	1,670
Lot 5 - Gravel	1.06	350	2.5	90%	788
Sub-total Village	6.24	1,949			4,288
Blackcomb Base II					
Lot 6 - Gravel	1.48	488	2.5	95%	1,160
Lot 7 - Gravel	1.26	416	2.5	98%	1,019
Lot 8 - Gravel	1.22	403	2.5	95%	956
Miscellaneous Roadside		193	2.5	100%	483
Sub-total Blackcomb	3.96	1,500			3,618
Total Skier Parking	10.20	4,717			11,013

TABLE II.20 WHISTLER VALLEY DAY SKIER PARKING 2013/2014

.14 Resort Staging Analysis

An analysis of the existing maximum potential base area skier staging capacity has been undertaken for the Central Village Zone and for the Creekside Zone. Figure 11 illustrates the two areas at current development levels with existing staging lifts and skier walking distance zones. The potential to accommodate overnight guests within skier walking distance or in ski-in/ski-out developments has been calculated for both base staging areas, using information from the 2013 Accommodation Land Use Inventory and the occupancy rate assumptions discussed in Section II.13.

Skier walking distance to valley base staging lifts is one of the most critical design parameters for successful mountain resorts. By locating all services and recreational opportunities within a comfortable walking distance of the accommodation for a majority of resort guests, the requirement for vehicular transportation within the resort is minimized. Similarly parking for recreational users from outside the resort must also be within walking distance to minimize the need for transit. Ecosign has defined "Skier Walking Distance" as the distance someone wearing ski boots and carrying ski equipment can comfortably walk in 10 minutes. Assuming a walking speed of 2.7 km/hr., translates into a distance of 450 metres over



level ground. The 450 metre distance is adjusted to account for grade changes by reducing the horizontal walking distance 4 metres for every one metre in vertical rise.

The base area staging analysis calculates the number of skiers the base area can supply to the mountain. For this process, skiers are divided into two groups: "Day Skiers", who are skiers that originate from outside the area and are coming to ski for one day only, and "Overnight Skiers", who are skiers generated from accommodation within the resort. Overnight Skiers are further divided into those staying in skiin/ski-out accommodation close to the lift bases and those who must drive or take public transportation to get to the ski lifts. If overnight skiers use their car to get to the lifts, there will then be less parking available for day skiers from outside the Whistler Valley. The base area capacity is the sum of the number of skiers that can arrive at the lifts, coming from accommodation within walking distance of the lifts, plus the number of skiers coming from parking within walking distance of the lifts and from public transportation, shuttle or private vehicle drop-off.

Central Village

In the Central Village Zone (Whistler Village, Village North and Upper Village), there are three skier walking distance zones, as illustrated on Figure 11, centered around the following staging lifts.

- The Whistler Village Base, with the Whistler Village Gondola and Fitzsimmons Express Quad to Whistler Mountain and the Excalibur Gondola to Blackcomb Mountain and Base 2.
- The Blackcomb Mountain Wizard Base, with the Wizard Express bubble quad chair and the Magic Chair.
- The Excalibur Gondola Mid Station at Base II on the Blackcomb Benchlands.

All of the properties within Whistler Village and most of the properties within Village North are within walking distance of the Whistler Village lifts to Whistler and Blackcomb Mountains. On the Blackcomb Benchlands (Upper Village), several of the properties are either within walking distance of the Wizard Base or are skiin/ski-out. A free village shuttle operated by the RMOW serves to provide those skiers from Village North and the Upper Village that are beyond walking distance easy access to the lifts by dropping them off at either the Whistler Village transit loop or the Wizard base. On peak days, approximately 9,350 skiers are generated from accommodation within SWD in the Central Village Zone. Although, approximately one-half of day skier Lot 3 and all of Lots 4 and 5 are beyond skier walking distance



of the Central Village lift terminals, on busy days, skiers do park here and walk to the lifts or wait for the Whistler Blackcomb shuttle. Data collected during the Whistler CTS in 1997 showed that about 20 percent of the skiers staging from the Central Village Zone arrive at the lifts via transit, taxi or private vehicle drop-off. Since both transit use and private vehicle drop-off have increased since then, we expect the actual percent would be higher, however, there have been no studies conducted to confirm this.

Creekside

Creekside has been entirely redeveloped in the last ten years, providing a substantial amount of new commercial accommodation right at the lift base in The Legends, First Tracks Lodge and Evolution. The original day skier parking lot was replaced with structured parking as part of this redevelopment. In addition to the properties at the lift base, Gondola Village, a portion of the south end of Nordic Estates and the Beaver Flats employee housing are all within skier walking distance or are ski-in/ski-out. The percentage of skiers arriving by transportation other than private car or walking, is assumed to be 10 percent, as per the results of the Whistler CTS survey. Again, we suspect that the actual proportion of skiers being dropped off could be much higher.

Base Area Staging Capacity

The theoretical base area staging capacity for the entire Whistler Valley using the assumptions for occupancy, skier participation and vehicle occupancy rates discussed previously, is approximately 27,100 skiers, as shown in Table II.21. The peak day experienced at Whistler Blackcomb over the past ten years was approximately 27,400 skiers. The average times to stage the this number of skiers with the existing lifts is also shown, assuming the skiers at each location spread themselves evenly among the available lifts. Over recent years since the installation of the Fitzsimmons Express, Whistler Mountain has typically captured approximately 55 percent of the skier volume on busy days. Using this assumption, the theoretical capacity of the base area to supply skiers to Blackcomb Mountain in 2013/14 assuming all beds and parking lots are filled to capacity would be 14,900 skiers. In fact, the busiest day experienced on Whistler Mountain in the past ten years was 15,859 skiers on December 29, 2010. The total number of skiers on both mountains that day was 26,324 slightly under the theoretical base staging capacity.


TABLE II.21
TOTAL WHISTLER VALLEY
THEORETICAL MAXIMUM BASE AREA STAGING CAPACITY
2013/14 SKI SEASON

	Skiers from		Skiers		Effective	
	Accomm.		from		Lift	
	in Skier	Skiers	Other	Total	Staging	Staging
	Walking	From	Trans-	Staging	Capacity	Time
	Distance	Parking	portation	Skiers	Skiers/Hour	Hour
Creekside	1,860	3,107	552	5,519	1,992	2.77
Central Village Zone	9,348	7,906	4,314	21,568	8,859	2.43
Total	11 208	11 013	4 865	27 086	10.851	2.50

Whistler Blackcomb provided Ecosign with daily records showing the first scans at each staging lift for the past six seasons, excluding the Olympic year. This data included staff and sightseers uploading, as well as skiers. An analysis of the busiest 20 days of each season is illustrated in Table II.22. This analysis shows that the distribution of skiers between the six valley staging lift access points has been very stable over the past six years with 55 to 56 percent of the total skiers on Whistler Typically, 19 to 23 percent of the skiers on both mountains stage out of Creekside, the Wizard base, 23 to 27 percent stage up the Whistler Village Gondola and use of the Fitzsimmons is about 9 to 12% of all uploads. Clearly on the busiest days, the Creekside and Village Gondolas are plugged with uploading skiers, leaving no capacity for return cycle skiing on the trails serviced by these lifts until after the morning upload period is over.



TABLE II.22 WHISTLER BLACKCOMB FIRST RIDE ANALYSIS 2006/07 TO 2008/09 SKI SEASONS

		WHISTLER MOUNTAIN							BLACKCOMB MOUNTAIN								
	Villa	age	Fitzsim	mons	Creeks	side	Sub-to	tal	Wiza	rd	Excali	bur	Excali	bur	Sub-to	otal	Total
	Gone	lola	Expre	ess	Gondo	la	Whist	ler	Expre	ss	Villa	ge	Base	Π	Blacke	comb	W-B
Staging Capacity (pph)	2,2	44	1,75	8	1,99	2	5,994	1	2,51	8	2,34	0	2,34	0	4,85	8	Skier
	Scans	% of	Scans	% of	Scans	% of	Scans	% of	Scans	% of	Scans	% of	Scans	% of	Scans	% of	Scans
		Total		Total		Total		Total		Total		Total		Total		Total	*
2006/07																	
Peak Day	7,405	26%	3,211	11%	5,474	19%	16,090	56%	6,113	21%	3,825	13%	2,521	9%	12,459	44%	28,549
Staging Time (hours)	3.	3	1.8		2.7		2.7		2.4		2.7		2.7		2.6		2.6
Average Top 10	7,016	27%	2,576	10%	4,936	19%	14,527	56%	5614.2	22%	4268	16%	1,587	6%	11,468	44%	25,996
Average Top 15	6,704	27%	2,467	10%	4,725	19%	13,896	55%	5485	22%	4316	17%	1500	6%	11,301	45%	25,197
Average Top 20	6,578	27%	2,387	10%	4,587	19%	13,552	55%	5,307	22%	4224	17%	1,419	6%	10,950	45%	24,502
2007/08																	
Peak Day	7,935	28%	3,292	12%	5,551	19%	16,778	59%	6,225	22%	4,009	14%	1,594	6%	11,828	41%	28,606
Staging Time (hours)	3.	5	1.9		2.8		2.8		3.1		2.4		2.4		2.4		2.6
Average Top 10	7,004	27%	2,469	10%	5,140	20%	14,614	56%	5,434	21%	4,391	17%	1,426	6%	11,252	44%	25,865
Average Top 15	6,770	27%	2,369	10%	4,852	19%	13,990	56%	5,314	21%	4,206	17%	1,389	6%	10,909	44%	24,899
Average Top 20	6,636	27%	2,228	9%	4,700	19%	13,565	56%	5,206	21%	4,141	17%	1,348	6%	10,696	44%	24,260
2008/09																	
Peak Day	4,594	18%	3,812	15%	5,017	20%	13,423	53%	6,214	25%	4,350	17%	1,331	5%	11,895	47%	25,318
Staging Time (hours)	2.	0	2.2		2.5	•	2.2		3.1	•	2.4	-	2.4		2.4		2.3
Average Top 10	6,002	25%	2,308	10%	5,050	21%	13,360	56%	5,442	23%	3,555	15%	1,512	6%	10,509	44%	23,870
Average Top 15	5,784	25%	2,217	10%	4,763	21%	12,764	56%	5,217	23%	3,431	15%	1,376	6%	10,024	44%	22,788
Average Top 20	5,674	26%	2,058	9%	4,681	21%	12,413	56%	4,996	23%	3,328	15%	1,304	6%	9,628	44%	22,041

* Total Scans includes staff and sightseeing visits

Note in 2008/09 the alpine terrain on Whistler Mountain did not open until the end of January



TABLE II.22 CONT'D WHISTLER BLACKCOMB FIRST RIDE ANALYSIS 2010/11 TO 2012/13 SKI SEASONS

		WHISTLER MOUNTAIN							BLACKCOMB MOUNTAIN								
	Villa	age	Fitzsim	mons	Creeks	side	Sub-to	tal	Wiza	rd	Excali	bur	Excali	bur	Sub-te	otal	Total
	Gond	lola	Expre	ess	Gondo	la	Whist	ler	Expre	ss	Villa	ge	Base	Π	Blacke	omb	W-B
Staging Capacity (pph)	2,24	44	1,75	8	1,99	2	5,994	1	2,51	8	2,34	0	2,34	0	4,85	8	Skier
	Scans	% of	Scans	% of	Scans	% of	Scans	% of	Scans	% of	Scans	% of	Scans	% of	Scans	% of	Scans
		Total		Total		Total		Total		Total		Total		Total		Total	*
2010/11																	
Peak Day	6,209	23%	4,697	17%	5,893	22%	16,799	62%	5,500	20%	2,391	9%	2,497	9%	10,388	38%	27,187
Staging Time (hours)	2.	8	2.7		3.0	•	2.8	•	2.8		2.1	-			2.1		2.5
Average Top 10	5,264	22%	2,469	10%	5,264	22%	12,996	55%	5,297	22%	3,702	16%	1,813	8%	10,812	45%	23,807
Average Top 15	5,145	23%	2,024	9%	5,145	23%	12,315	55%	5,016	22%	3,582	16%	1,620	7%	10,218	45%	22,534
Average Top 20	5,030	23%	1,819	8%	5,030	23%	11,879	55%	4,793	22%	3,471	16%	1,644	8%	9,907	45%	21,786
2011/12																	
Peak Day	5,841	21%	3,397	12%	6,111	22%	15,349	56%	5,718	21%	4,281	16%	1,925	7%	11,924	44%	27,273
Staging Time (hours)	2.	6	1.9		3.1		2.6		2.9		2.7		2.7		2.5		2.5
Average Top 10	5,945	24%	2,312	9%	5,504	22%	13,761	56%	5,388	22%	3,873	16%	1,744	7%	11,005	44%	24,765
Average Top 15	5,810	24%	2,178	9%	5,328	22%	13,316	56%	5,194	22%	3,541	15%	1,684	7%	10,419	44%	23,735
Average Top 20	5,641	25%	1,964	9%	5,232	23%	12,837	56%	4,992	22%	3,355	15%	1,662	7%	10,009	44%	22,846
2012/13																	
Peak Day	6,063	22%	3,220	12%	6,121	23%	15,404	57%	6,140	23%	3,954	15%	1,590	6%	11,684	43%	27,088
Staging Time (hours)	2.2	7	1.8		3.1	•	2.6	•	3.1		2.4		2.4		2.4		2.5
Average Top 10	5,705	23%	2,425	10%	5,467	22%	13,597	56%	5,554	23%	3,607	15%	1,586	7%	10,747	44%	24,345
Average Top 15	5,600	24%	2,211	9%	5,221	22%	13,032	56%	5,280	23%	3,505	15%	1,509	6%	10,294	44%	23,327
Average Top 20	5,392	24%	2,165	10%	5,033	22%	12,590	56%	5,102	23%	3,390	15%	1,516	7%	10,008	44%	22,598



.15 Other On Mountain Recreational Activities

In addition to downhill skiing, Whistler Blackcomb and other independent operators provide a range of other recreational activities within Whistler Mountain's Controlled Recreational Area. Some of these activities are available year round and some are offered on a seasonal basis. Some of these activities have required the construction of permanent facilities such as trails, terrain features, sheds and huts, while many of the activities take place using the existing facilities constructed for the ski area operation. This section of the report provides a brief description of the additional recreational activities currently offered on Whistler Mountain. Figures 12a, 12b and 12c illustrate facilities that have been constructed to support these recreational offerings.

Sightseeing

Sightseers can access Whistler Mountain via the Whistler Village Gondola whenever the lift is running, which is most of the year. During the winter ski season, sightseers have access to the Roundhouse restaurant and observation deck and can take the PEAK 2 PEAK gondola over to Blackcomb to visit the Rendezvous restaurant. In the summer, sightseers have access to a walking and hiking trail system on both mountains. Winter season sightseeing visits on Whistler Mountain have ranged from 37,750 to 66,670 over the past ten years, while summer season sightseeing has ranged from 127,000 to 270,000 during the same time period. The installation of the PEAK 2 PEAK coincided with a significant increase in summer sightseeing visits during 2009. Recent sightseeing visitor statistics are provided in the Market section of the report.

<u>Hiking</u>

Whistler Mountain has developed an alpine trail network for hiking that extends out from the Roundhouse and from the top of the Peak chair. The hiking trails are illustrated in red on Figure 12a. The Musical Bumps Trail along the ridge connecting the Piccolo, Flute and Oboe summits joins up with the Singing Pass Trail in Garibaldi Provincial Park. The trail pathways are clearly marked and interpretative signage is provided to enhance the experience. Guests are advised to stay on the trails to protect the sensitive alpine environment. Virtually all hikers use the lifts to get to the mountain top.

Cross Country Mountain Bike Trails

Several cross country mountain bike trails pass through the lower elevations of Whistler Mountain's CRA. These are illustrated on Figure 12a. These trails are used freely by the general public. Some of the trails are maintained by the local mountain bike club, Whistler Off- Road Cycling Association (WORCA).



Downhill Mountain Biking

Whistler Blackcomb operates a downhill mountain bike park on Whistler Mountain that is typically open from early May through to Thanksgiving weekend. The mountain bike park is serviced by the Whistler Village Gondola as well as the Fitzsimmons Express and the Garbanzo Express chairlifts. The Top of the World trail accessed by the Peak Express opened in 2012. The Whistler Mountain Bike Park contains over 50 named trails for all skill classes ranging from easy (green circle) to expert (double black diamond). The mountain biking trails are shown in Figure 12a and the mountain bike park is shown in more detail in Figure 12b. In addition to trails, the mountain bike park contains many natural and man made features such as bridges, jumps and table tops. Many of the features are constructed on the lower slopes of the mountain each spring at the end of the ski season and removed prior to the first snowfall in the fall. Visits to the mountain bike park have more than doubled from 68,630 in 2003 to 139,900 in 2012. New trails have been added each summer to keep pace with the growing demand. The existing trail inventory contains 62.5 kilometres of trails.



Whistler Mountain Bike Park

Mountain Ecology Bear and Wildlife Viewing Tours

During the summer season, wildlife viewing tours are offered on Whistler and Blackcomb mountains. These tours are guided by local black bear researcher Michael Allen. Guests are transported around the mountain to bear viewing areas in four wheel drive vehicles traveling on the mountain access roads.



Guided Mountaineering and Hiking

The Whistler Alpine Guides Bureau and Coast Mountain Guides offer summer alpine activities on Whistler Mountain including rock climbing tours, via ferrata, wilderness hikes, glacier walks, rock scrambling, mountaineering courses, etc. The Whistler Alpine Guides Bureau offers guided winter backcountry skiing tours leaving from the top of Whistler Mountain that take guests into the backcountry beyond the CRA. The Whistler Alpine Guides Bureau has had 725, 981 and 879 guests taking part in these activities in 2009, 2008, and 2007 respectively (on both Whistler and Blackcomb combined). Coast Mountain Guides has had 224, 362 and 527 guests taking part in these activities in the last 3 years.

Ziptrek Ecotours

Ziptrek Ecotours operates several zip lines and a tree trek tour along the south side of Fitzsimmons Creek. Their facilities overlap the boundary between Whistler and Blackcomb Mountain's CRA, with facilities on both sides of the boundary, as shown in Figure 12a. Their facilities consist of bridges and platforms in the tree canopy up to 50 metres above the ground with 10 zip lines extending between some of the tree platforms. The longest zip line is over 600 metres. Ziptrek's tours are available all year long. In 2008/09 Ziptrek did about 70,000 tours.



Ziptrek's Tree Trek Tour Facilities



Geocaching

Whistler Geocaching Adventures offers an outdoor treasure hunt using GPS. participants use a GPS receiver or other navigational techniques to hide and seek containers called geocaches. A typical cache is a small waterproof container containing a logbook and a "treasure". Whistler Geocaching Adventures had 37 guests in the summer of 2009.

Snowshoe Tours and Dogsledding

Outdoor Adventures offers snowshoe tours and dogsledding tours in various areas within Whistler Mountain's CRA that do not conflict with the ski area operation.

Snowmobile Tours

In the spring, if Whistler Mountain closes to skiers before Blackcomb Mountain does, Canadian Snowmobile Adventures will offer snowmobile tours on Whistler Mountain.

.16 Area Facilities Balance

Throughout the previous sections, we have inventoried all of Whistler Mountain's existing facilities and subsequently analyzed the daily capacity of the following operational elements: lifts, trails, skier service buildings, food service, accommodation and parking. We have prepared a graphic representation of the overall area facilities balance in Plate II.9, which portrays an area that may be somewhat unbalanced. As shown in the graph below, the highest peak day ever was 15,828 with an average of the top 15 days at about 11,800 in the last 5 years. Although, the highest day ever experienced was over 15,800 skiers, the normal peak day in the last 10 years is in the range of 14,000-14,500.

As shown in Plate II.7, both the lift capacity and trail capacity are in excess of the peak day, meaning that skiers should have quite a comfortable experience, as long as the entire mountain is open on those particular days. Unfortunately, the peak day exceeds the calculated SCC when the upper mountain is closed due to weather, a frequent occurrence, or a lack of snow such as in the first 1/3 of the 2008/09 season (Mode 2 SCC = 13,500). The calculated SCC when the lower mountain is closed due to lack of snow (Mode 3 SCC =15,520) is quite close to the peak day visit levels.

As shown, overall built space for skier services is at about 10,800 skiers, which is about 1,000 skiers short of the design day (11,800 skiers per day), although there are specific facilities that have adequate floorspace. As described in detail previously,



restaurant seats are in significant shortage with overall indoor seats only able to serve 6,600 skiers comfortably, including only 5,454 on-mountain, a significant shortage.

Base area staging essentially matches the peak days, with maximum staging for the entire valley at 27,666 (equivalent to the peak days experienced at both mountains). Whistler's share is approximately 15,200 skiers, very close to the peak days experienced in the last few years.

Whistler Mountain's out of valley staging capacity over a 2.5 hour period is adequate to stage the average of the top 15 busiest days over the past 5 seasons. Approximately 8 to 12 days per season staging times exceed Whistler Blackcomb's service goal of 2 hours, however, on a peak day there is enough lift capacity to stage all skiers within about 2.5 hours on average (although it is significantly higher on the Village Gondola and significantly shorter on the Fitzsimmons Express due to skier's preference for the weather protected direct route of the gondola).



WHISTLER MOUNTAIN AREA FACILITIES BALANCE

PLATE II.7



III.MARKET

.1 Classification of Winter Sport Sites

Ecosign utilizes the British Columbia Government's system of classification of mountain resort types as outlined in the "All Season Resort Guidelines". The mountain resorts fall into one of the following classifications:

- a) Community Facility
- b) Regional Facility
- c) Destination Facility

The following section is a list of site development characteristics common to each of the above classifications.

- a) <u>Community Mountain Resort</u>
 - Serves the local population
 - Focused on weekend use and local needs
 - No overnight accommodation
- b) <u>Regional Mountain Resort</u>
 - 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)
- c) <u>Destination Mountain Resort</u>
 - Serves local, regional and destination enthusiasts with an emphasis on catering to destination need and services
 - Offers a unique and truly special mountain experience
 - Provides a wide range of tourist facilities, for a total resort experience where lift-serviced skiing and snowboarding (although still the priority) 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, including publicly available commercial beds (approximately 40 60 % in close proximity to ski lifts and trails and other resort amenities), private bed subdivisions (approximately 30 50 %), and resident-restricted employee housing (approximately 10 20 %).



Whistler and Blackcomb Mountains are part of the Whistler resort and together form the largest destination mountain resort in Canada.

.2 North American Ski Industry Overview

United States

The sport of skiing had its primary economic take-off point in the post-World War II period. While the physical plant and participation in the sport grew moderately during the 1950's, the 1960's ushered in an explosive era of ski development in North America, which centered in the Northeast Corridor, the Rocky Mountains and the West, with participation growing in excess of 15 percent per annum. While the North American average annual growth rate has leveled off, some regions continue to experience growth. Industry analysts have suggested that these growth regions (i.e. Colorado, California, Utah and British Columbia) have sustained their positive growth patterns through continued resort development; thereby substantiating the tenet that in winter snow sliding sports, supply creates demand. Other identifiable growth stimulators within the sport of skiing include: population growth; technological improvements of ski lifts, equipment, clothing, and slope grooming techniques; the parabolic or shaped skis, snowboarding, snow tubing, airline deregulation and co-operative packaging of lifts, equipment, transportation and accommodation, thus creating a "total resort experience".

In the latter part of the 1980's, growth in the North American skier market slowed considerably, with total visitation in the United States averaging around the 50 million level, and a high of 53.9 million in 1986/87.

The 2000/01 season was a record-breaking season in terms of number of visits, with a total of approximately 57.3 million visits, a 5 percent increase over 1999/2000. This increase was attributed mainly to strong visitor numbers over the Christmas season and the average length of season increasing from the previous season. Snowfall accumulations were varied throughout the regions, but some areas reported a 12 percent increase in snowfall. Season pass sales increased in all regions and were also a contributing factor to the substantial increase in visitation for 2000/01.

Over the long term, skier visitation has reached a new level, even with an aging population, up from a low of 47 million in 1990/91 to the all-time highest number of visits recorded in 2010/11 of 60.54 million. In 2010/2011, a total of 60.54 million skier visits were recorded in the US; a slight increase of 1.3 percent from the previous season and edging 0.1 percent ahead of the previous record set in 2007/08. This increase occurred due to several factors including record season-long snowfall, a longer operating season for some areas, as well as a surge in late season skier visits. This positive optimism may also be partially due to the perceived continual recovery



from the global financial crisis from 2008 and an increase in consumer confidence. Travel and tourism in general continued to recover and the unemployment rate fell slightly.

Skier visits decreased by 15.8 percent during the 2011/12 season, to 51.0 million from 60.5 million last season, the biggest year-over-year decline since the 17.6 percent drop in 1980/81. The drop in visits was largely due to a significant decrease in snowfall, the lowest average snowfall since 1991/92 and warm weather. U.S. ski resorts saw a healthy rebound in visitation in the 2012-13 ski season, reaching 56.6 million visits, primarily due to a much better snowpack. Plate I.1 illustrates the total skier visitation history for the United States from the 1978/79 to 2011/13 ski seasons.



TOTAL SKIER VISITS UNITED STATES

Source: Kottke National End of Season Survey Report 2008/09 PLATE III.1



<u>Canada</u>

Total skier visits in Canada for the 2010/11 season were 19,227,000, an increase of 4.9 percent from the previous season's visits of 18,280,000. Overall, the Canadian Ski Industry was down 9% in skier visits between the 2007/08 season and the 2010/11 season. The 2007/08 ski season was exception in terms of a record high number of skier visits and also excellent snow conditions. Table III.1 summarizes the Canadian Historic Skier visitation for the past five seasons.

PROVINCE	2006/07	2007/08	% Change	2008/09	% Change	2009/10	% Change	2010/11	% Change
B.C./Yukon, Heliski	6,075,000	6,711,000	9.5%	5,918,000	-13.4%	5,536,000	-6.9%	6,228,000	11.1%
Alberta	2,662,000	2,564,000	-3.8%	2,369,000	-8.2%	2,499,000	5.2%	2,441,000	-2.4%
Prairies	181,000	242,000	25.2%	236,000	-2.5%	275,000	14.2%	212,000	-29.7%
Ontario	3,267,000	3,551,000	8.0%	3,443,000	-3.1%	3,359,000	-2.5%	3,399,000	1.2%
Quebec	6,345,000	7,085,000	10.4%	6,233,000	-13.7%	6,109,000	-2.0%	6,438,000	5.1%
Atlantic	438,000	506,000	13.4%	509,000	0.6%	502,000	-1.4%	509,000	1.4%
TOTAL	18,968,000	20,659,000	8.2%	18,708,000	-10.4%	18,280,000	-2.3%	19,227,000	4.9%

TABLE III.1CANADIAN HISTORIC SKIER VISITATION2006/07-2010/11

Source: Canadian Ski Council 2011

In Western Canada, the British Columbia skiing industry grew at an annual rate of 6.1 percent since the 1984/85 season, as illustrated graphically in Plate III.2 and summarized in Table III.2. British Columbia's ski areas have aggressively expanded and improved their ski areas, assisted by favourable government policy and financial programs. Between 1998 and the season ending in 2008, British Columbia's visitation increased 44 percent to a record 6.47 million skier visits. By contrast, Alberta's ski industry had mixed results during the same period, with an average annual compound growth rate of only 3.9 percent. While visitation in Alberta improved between 1985 and 1990, skier visits were flat up to 1995. From 1995 to 2000, Alberta experienced a dramatic increase in skier visitation up to 2.59 million, the highest number ever recorded. Alberta visitation has fluctuated between 2.1 and 2.66 million visits since that time.

The two provinces combined had record skier visit levels of over 9.0 million in the 2007/08 ski season. While visits have recovered somewhat from the recession in starting in the fall of 2008, they still have not reached the pre recession level.



TABLE III.2 RECORDED ANNUAL SKIER VISITS BRITISH COLUMBIA & ALBERTA – 1984/85 TO 2011/12

		ALBI	ERTA			BRITISH CO	LUMBIA	TOTAL				
	Total	%	No.	Average	Total	%	No.	Average	Total	%	No.	Average
Ski	Skier	Annual	of	Visits/	Skier	Annual	of	Visits/	Skier	Annual	of	Visits/
Season	Visits	Change	Areas	Area	Visits	Change	Areas	Area	Visits	Change	Areas	Area
1977/78					1319703							
1978/79	1135892				1526554	15.7%						
1979/80	1368143	20.4%			1793297	17.5%						
1980/81	1257870	-8.1%			1341632	-25.2%						
1981/82	1325923	5.4%			2341439	74.5%						
1982/83	1105119	-16.7%			2419969	3.4%						
1983/84	1089080	-1.5%			2391710	-1.2%						
1984/85	1,509,819	38.6%	13	116,140	2,761,018	15.4%	33	83,667	4,270,837		46	92,844
1985/86	1,576,787	4.4%	16	98,549	2,428,277	-12.1%	33	73,584	4,005,064	-6.2%	49	81,736
1986/87	1,754,774	11.3%	19	92,357	2,647,636	9.0%	33	80,231	4,402,410	9.9%	52	84,662
1987/88	1,508,373	-14.0%	22	68,562	3,196,148	20.7%	36	88,782	4,704,521	6.9%	58	81,112
1988/89	1,801,521	19.4%	19	94,817	3,342,645	4.6%	24	139,277	5,144,166	9.3%	43	119,632
1989/90	1,964,072	9.0%	19	103,372	3,188,927	-4.6%	33	96,634	5,152,999	0.2%	52	99,096
1990/91	1,934,512	-1.5%	21	92,120	3,339,188	4.7%	31	107,716	5,273,700	2.3%	52	101,417
1991/92	1,808,541	-6.5%	26	69,559	3,411,004	2.2%	39	87,462	5,219,545	-1.0%	65	80,301
1992/93	1,574,129	-13.0%	25	62,965	3,799,054	11.4%	41	92,660	5,373,183	2.9%	66	81,412
1993/94	1,931,489	22.7%	23	83,978	3,978,948	4.7%	34	117,028	5,910,437	10.0%	57	103,692
1994/95	1,967,228	1.9%	26	75,663	4,367,269	9.8%	42	103,983	6,334,497	7.2%	68	93,154
1995/96	2,069,757	5.2%	26	79,606	4,097,137	-6.2%	42	97,551	6,166,894	-2.6%	68	90,690
1996/97	2,191,540	5.9%	26	84,290	4,390,636	7.2%	42	104,539	6,582,176	6.7%	68	96,797
1997/98	2,040,011	-6.9%	26	78,462	4,502,056	2.5%	42	107,192	6,542,067	-0.6%	68	96,207
1998/99	2,559,237	25.5%	26	98,432	5,590,480	24.2%	42	133,107	8,149,717	24.6%	68	119,849
1999/00	2,589,100	1.2%	29	89,279	5,901,197	5.6%	39	151,313	8,490,297	4.2%	68	124,857
2000/01	2,119,537	-18.1%	29	73,087	5,387,662	-8.7%	39	138,145	7,507,199	-11.6%	68	110,400
2001/02	2,561,022	20.8%	30	85,367	6,176,259	14.6%	40	154,406	8,737,281	16.4%	70	124,818
2002/03	2,363,416	-7.7%	28	84,408	5,491,030	-11.1%	36	152,529	7,854,446	-10.1%	64	122,726
2003/04	2,417,559	2.3%	28	86,341	6,045,276	10.1%	36	167,924	8,462,835	7.7%	64	132,232
2004/05	2,335,773	-3.4%	28	83,420	4,527,289	-25.1%	36	125,758	6,863,062	-18.9%	64	107,235
2005/06	2,402,793	2.9%	28	85,814	5,758,313	27.2%	36	159,953	8,161,106	18.9%	64	127,517
2006/07	2,662,913	10.8%	28	95,104	5,998,603	4.2%	36	166,628	8,661,516	6.1%	64	135,336
2007/08	2,564,176	-3.7%	28	91,578	6,470,743	7.9%	36	179,743	9,034,919	4.3%	64	141,171
2008/09	2,368,809	-7.6%	28	84,600	5,826,405	-10.0%	36	161,845	8,195,214	-9.3%	64	128,050
2009/10	2,499,180	5.5%	28	89,256	5,452,781	-6.4%	36	151,466	7,951,961	-3.0%	64	124,249
2010/11	2,440,589	-2.3%	28	87,164	6,148,041	12.8%	36	170,779	8,588,630	8.0%	64	134,197
2011/12	2,383,000	-2.4%	28	85,107	6,116,000	-0.5%	36	169,889	8,499,000	-1.0%	64	132,797

Source: Canada West Ski Areas Association





ANNUAL SKIER VISITS BRITISH COLUMBIA & ALBERTA – 1984/85 TO 2011/12

Source: Canada West Ski Areas Association PLATE III.2

Summary

In conclusion, the ski industry has been impacted by global economics, travel patterns and different health crises. However, the core participants are passionate about the sport but are aware of the recession and its effects on recreation and leisure time, as well as the costs.

- Global health concerns may also impact the skier visitation for regional and destination travelers.
- Sensitivity to value is at its highest, with many resorts offering reductions in ticket prices.
- Generally, there is renewed optimism but substantial uncertainty remains.
- Marketing opportunities are huge for those resorts and ski areas near large metropolitan areas. Creative marketing emphasizing loyalty and value is needed.
- Destination markets are recovering but have not returned to previous highs.



• As the Baby Boom ages, the ski industry faces many challenges in the future to maintain current levels of resort visitation, let alone finding markets for continued growth.

.3 Snowboarding

The early emerging popularity and growth of snowboarding had a significant impact on many components of winter resort area operations. Snowboarding, initially viewed by many as an "alternate" or "anti-establishment" activity for mainly the younger, skateboarding crowd, showed steady growth initially. The increase in participation was due to several factors. In addition to interest from a younger generation, with more than 75 percent of snowboarders between the ages of 13-24, a growing number of advanced skiers who because of sport burn-out or skiing associated injuries, have chosen to give snowboarding a try and, in many cases are "crossing over" to the sport. In addition, because of the perception that snowboarding is far less technical and therefore easier to learn and progress, snowboarding is much more appealing to those who may or may not have tried skiing.

Snowboarding showed a downward trend for the past two seasons, after reaching a plateau. Snowboarders made up 30.2 percent of resort visits during the 2011/12 season. Plate III.3 illustrates the change in the extent of snowboarding participation between 2007/08 and 2011/12.



SNOWBOARDERS - AS A PERCENT OF TOTAL WINTER VISITS

Source: Kottke National End of Season Survey 2011/12 PLATE III.3



.4 Snow Tubing

In addition to skiing and snowboarding at winter resorts, many areas now offer snow tubing during the day and evenings. In 2004/05, approximately 46 percent of winter resort areas offered snow tubing. During the 2011/12 season, 53 percent of areas operating snow tubing. Plate.III.4 illustrates the percentage of areas which offer snow tubing. As shown, there are regional fluctuations in tubing operations with the Southeast the highest, at 94 percent and the Rocky Mountain region at 30 percent.



PERCENTAGE OF RESORTS WITH SNOW TUBING

Source: Kottke National End of Season Survey 2011/12 PLATE III.4

Plate III.5 illustrates the average number of visits at the tubing areas since the 2007/08 season. As shown, overall tubing visits on average have plateaued at approximately 23,000 per area.





UNITED STATES AVERAGE SNOW TUBING VISITS PER AREA

Source: Kottke National End of Season Survey 2011/12 PLATE III.5

.5 Historic Winter and Summer Visitation for Whistler Blackcomb

Whistler and Blackcomb Mountains experienced substantial year over year growth in skier up until about the late 1990's when it began to level off. Since the two mountains are side by side and linked by the PEAK 2 PEAK gondola it is common for both skiers and sightseers to visit both mountains in one day. A visit is recorded at the mountain where the guest rides their first lift of the day, which may or may not be the mountain on which they spend most of their day.

Winter and summer visits for the eleven year period between 2002/2003 and 2011/13 but excluding the winter of 2009/10 and the summer of 2013 are listed in Tables III.3, III.4 and III.5. This provides ten years of data for each season. Over the ten year period winter season skier visits for the resort have fluctuated between 1.9 and 2.2 million with the ten year average being 2.0 million as illustrated in Plate III.6. After a significant drop in 2008/09 due to the economic recession, the visits have recovered to just over 2.0 million. The ten year average for winter season skier visits on Whistler Mountain is approximately 1.1 million. Whistler's share of the



first rides for skiers has remained fairly consistent at 53 to 57% despite adjustments in the number of days each mountain has been open over the ten year period.



WHISTLER BLACKCOMB HISTORIC SKIER VISITS

PLATE III.6

While winter visits have stabilized, the summer visits have shown dramatic growth between 2003 and 2012. Summer sightseeing visits have grown from 147,500 in 2003 to 315,700 in 2009 the first summer the PEAK 2 PEAK Gondola was open. Visits to the Whistler Mountain Bike Park have been climbing steadily and in 2012 were more than double the 2003 level. The total visits for the 2011/12 winter combined with the 2012 summer were the highest ever recorded, indicating the increasing contribution from the summer season.



Season		Wint	er	_		Sun	mer	
Ending	Skier	Sightseer	Biker	Total	Skier	Sightseer	Biker	Total
2003	2,112,461	55,504	-	2,167,965	1,424	147,524	62,256	211,204
2004	2,045,111	60,914	8,709	2,114,734	3,107	200,321	68,630	272,058
2005	1,735,669	62,371	10,453	1,808,493	2,335	154,063	63,891	220,289
2006	1,983,687	79,743	6,912	2,070,342	2,097	227,765	91,154	321,016
2007	2,170,229	61,612	6,942	2,238,783	2,159	197,524	95,147	294,830
2008	2,196,514	63,230	8,770	2,268,514	2,931	193,919	102,065	298,915
2009	1,881,439	73,164	11,605	1,966,208	2,810	283,653	111,928	398,391
2010	n.a.	n.a.	n.a.	n.a.	42,915	315,749	126,525	485,189
2011	2,017,828	59,236	4,038	2,081,102	25,972	276,850	117,145	419,967
2012	2,131,729	61,635	5,277	2,198,641	22,406	269,581	134,636	426,623
2013	2,040,828	65,723	7,192	2,106,551	n.a	n.a.	n.a.	n.a.
Ten Year Average	2,031,550	64,313	6,990	2,102,133	10,816	226,695	97,338	334,848

TABLE III.3 WHISTLER BLACKCOMB COMBINED VISITATION SEASONS ENDING 2003-2013

Season	ТО	TAL SUMN	IER & WINT	ER
Ending	Skier	Biker	Sightseer	TOTAL
2003	2,113,885	62,256	203,028	2,379,169
2004	2,048,218	77,339	261,235	2,386,792
2005	1,738,004	74,344	216,434	2,028,782
2006	1,985,784	98,066	307,508	2,391,358
2007	2,172,388	102,089	259,136	2,533,613
2008	2,199,445	110,835	257,149	2,567,429
2009	1,884,249	123,533	356,817	2,364,599
2010	n.a.	126,525	n.a.	n.a.
2011	2,043,800	121,183	336,086	2,501,069
2012	2,154,135	139,913	331,216	2,625,264
2013	n.a.	n.a.	n.a.	n.a.
Ten Year Average	2,042,365	104,328	291,008	2,437,701



TABLE III.4 WHISTLER MOUNTAIN VISITATION SEASONS ENDING 2003-2013

Season		Win	ter			Sun	mer		TOTAL			
Ending	Skier	Sightseer	Biker	Total	Skier	Sightseer	Biker	Total	Skier	Sightseer	Biker	
2003	1,111,575	51,631	-	1,163,206	40	126,986	62,256	189,282	1,111,615	178,617	62,256	
2004	1,094,351	57,897	8,709	1,160,957	-	170,780	68,630	239,410	1,094,351	228,677	77,339	
2005	947,258	59,326	10,453	1,017,037	-	143,626	63,891	207,517	947,258	202,952	74,344	
2006	1,067,452	73,133	6,912	1,147,497	-	206,674	91,154	297,828	1,067,452	279,807	98,066	
2007	1,159,020	40,218	6,942	1,206,180	-	182,894	95,147	278,041	1,159,020	223,112	102,089	
2008	1,192,240	39,352	8,770	1,240,362	-	178,463	102,065	280,528	1,192,240	217,815	110,835	
2009	1,063,915	66,670	11,605	1,142,190	-	251,375	111,928	363,303	1,063,915	318,045	123,533	
2010	n.a.	n.a.	n.a.	n.a.	146	270,064	126,525	396,735	n.a.	n.a	126,525	
2011	1,092,683	46,852	4,038	1,143,573	149	234,085	117,145	351,379	1,092,832	280,937	121,183	
2012	1,156,295	50,101	5,277	1,211,673	-	254,327	134,636	388,963	1,156,295	304,428	139,913	
2013	1,094,298	54,351	7,192	1,155,841					1,094,298	54,351	7,192	
Ten Year Average	1,097,909	53,953	6,990	1,158,852	34	201,927	97,338	299,299	104,328	1,458,150	104,361	

TABLE III.5 BLACKCOMB MOUNTAIN VISITATION SEASON ENDING 2003-2013

Season		Winter			Summer		TO	ΓAL
Ending	Skier	Sightseer	Total	Skier	Sightseer	Total	Skier	Sightseer
2003	1,000,886	3,873	1,004,759	1,384	20,538	21,922	1,002,270	24,411
2004	950,760	3,017	953,777	3,107	29,541	32,648	953,867	32,558
2005	788,411	3,045	791,456	2,335	10,437	12,772	790,746	13,482
2006	916,235	6,610	922,845	2,097	21,091	23,188	918,332	27,701
2007	1,011,209	21,394	1,032,603	2,159	14,630	16,789	1,013,368	36,024
2008	1,004,274	23,878	1,028,152	2,931	15,456	18,387	1,007,205	39,334
2009	817,524	6,494	824,018	2,810	32,278	35,088	820,334	38,772
2010	n.a.	n.a.	n.a.	42,769	45,685	88,454	n.a.	n.a.
2011	925,145	12,384	937,529	25,823	42,765	68,588	950,968	55,149
2012	975,434	11,534	986,968	22,406	15,254	37,660	997,840	26,788
2013	946,530	11,372	957,902	n.a.	n.a.	n.a.	n.a.	n.a.
Ten Year Average	933,641	10,360	944,001	10,782	24,768	35,550	944,423	45,910

An analysis of the distribution of skier visits for Whistler Mountain is presented in Plate III.7. Since the installation of the Fitzsimmons Chair in 1999, which provided a second staging route out of Whistler Village, skier visits on Whistler Mountain on the busiest days have increased. Whistler Mountain's peak day was over 15,957 skiers on December 29, 2010. Over the last 6 years, the average of the



top 15 busiest days on Whistler Mountain is 12,500 skiers and the 10,000 skier visit level is exceeded an average of 26 days per season.



PLATE III.7

Plate III.8 presents an analysis of the distribution of skier visits for the two mountains combined. The Peak Day ever experienced was approximately 27,400 skiers while the average Peak Day over the last 6 seasons is 25,900 skiers. The Average Top 15 days over the past 6 seasons is 22,640 skiers. The two mountains combined have exceeded 20,000 visits an average of 17 days over each of the last 6 seasons.





WHISTLER BLACKCOMB SKIER VISIT DISTRIBUTION ANALYSIS 1998/99 TO 2012/13

PLATE III.8

In summary, Whistler Blackcomb has experienced a leveling off of winter skier visits in the past few seasons, similar to other successful resorts in western North America. The summer visits, measured in mountain lift rides, however, have been increasing significantly as the Whistler resort continues to develop new summer attractions and events.

.6 Skier Visit Forecast

The management of Whistler Blackcomb has prepared a forecast of winter season skier visits for the next twenty years which is presented in Table III.6 and illustrated in Plate III.8. Taking into account planned improvements for the mountain infrastructure, regional and global demographics and Whistler Blackcomb's dominant position in the British Columbia ski industry, the management team is predicting modest growth over the next twenty years. Fluctuations in the economy and the weather can significantly impact the skier visit levels. The improvements outlined in



this Master Plan will be strategically implemented to allow Whistler Blackcomb to continue to provide a top quality experience for their guests.

Seaon	Whistler	Blackcomb	Whis tle r
Ending	Mountain	Mountain	Blackcomb
2012	1,156,295	975,434	2,131,729
2013	1,094,295	946,540	2,040,835
2014	1,229,600	890,400	2,120,000
2015	1,235,400	894,600	2,130,000
2016	1,241,200	898,800	2,140,000
2017	1,252,800	907,200	2,160,000
2018	1,261,500	913,500	2,175,000
2019	1,267,300	917,700	2,185,000
2020	1,276,000	924,000	2,200,000
2021	1,281,800	928,200	2,210,000
2022	1,287,600	932,400	2,220,000
2023	1,296,300	938,700	2,235,000
2024	1,302,100	942,900	2,245,000
2025	1,307,900	947,100	2,255,000
2026	1,316,600	953,400	2,270,000
2027	1,322,400	957,600	2,280,000
2028	1,331,100	963,900	2,295,000
2029	1,336,900	968,100	2,305,000
2030	1,342,700	972,300	2,315,000
2031	1,348,500	976,500	2,325,000
2032	1,357,200	982,800	2,340,000
2033	1,363,000	987,000	2,350,000
2034	1,371,700	993,300	2,365,000

TABLE III.6 WHISTLER BLACKCOMB 20 YEAR SKIER VISIT FORECAST



WHISTLER BLACKCOMB 20 YEAR SKIER VISIT FORECAST



PLATE III.8



IV. DEVELOPMENT ANALYSIS

The purpose of the development analysis section is to blend the information and/or constraints identified in the inventory section with acceptable ski industry planning and design parameters. Specifically, the constraints imposed by climate (natural snowpacks, wind, solar exposure), surficial geology (depth to bedrock, potential hazards, high water table) and visual quality objectives have "shrunk" the overall size of the potential development area.

.1 Mountain Design Analysis

Accurate topographic mapping is a prerequisite for good mountain planning. During the technical assessment phase, the planning team utilized topographic mapping at a scale of 1:5,000 with 5 metre contour intervals. The topography and planimetry is based on aerial photography taken in 2000, with some small edits made to the planimetry using 2006 aerial photography obtained from the RMOW. The 1:5,000 map encompasses approximately 5,250 hectares, covering the existing ski area and potential expansion areas south of Fitzsimmons Creek.

Utilizing the newly prepared 1:5,000 topographic mapping, the most critical analysis map for the ski area design and evaluation process was prepared: the Slope Analysis Map (Figures 13a and 13b). This map delineates the areas that can be negotiated by the various skier ability levels, as well as areas that are considered too flat or too steep for the skiing public. The natural slope gradients were carefully measured and colour coded into the following five classifications:

Slope Gradients	Colour	Type of Skiing
0 - 8%	white	flats, marginal skiing
8 - 25%	green	beginner and novice skiing
25 - 45%	yellow	intermediate skiing
45 - 70%	blue	advanced and expert skiing
70% +	red	extreme skiing, safety zones

These maps were then utilized in the evaluation of the terrain and play a critical role in developing conceptual alternatives.

.2 Terrain Capacity Analysis

We have analyzed the natural terrain within the Whistler Mountain Study Area which possesses good ski potential to accurately establish the area's overall ski development potential.



The Terrain Capacity Analysis Map graphically illustrates major terrain "pods" within the Study Area which possess good potential for ski development. The pods were selected by consulting the Slope Analysis Map and observing the following criteria:

- continuous fall line skiing from top to bottom
- suitable upper and lower lift terminal locations (e.g., 0.2 hectares less than 25 percent slope)
- good slope continuity to allow interesting skiing from top to bottom for one or more skier ability levels
- natural slope gradients primarily greater than eight percent and less than 70 percent

Within each terrain pod, the upper and lower points are joined to establish the total vertical rise, horizontal distance, straight line slope and steepest 30 metre vertical pitch. The total pod area was measured and the terrain available for trail development was calculated. The above data comprises the inputs to our ski terrain capacity computer program. The final program input is a judgement which identifies the "primary" skier skill classification for each terrain pod. The program outputs are as follows:

SKI TERRAIN - net developable ski terrain within the pod. It varies between 35 and 75 percent of the usable terrain within the pod depending on topography, vegetation and previous development in the pod.

TOTAL SKIERS - in pod at acceptable skier densities.

DEMAND VTM (000) - vertical transport metres required to service the total skiers.

LIFT CAPACITY/HR. - the net hourly lift capacity necessary to maximize the development of each pod.

The Terrain Capacity Analysis Map and program printout (Table IV.1) provide a reliable indication of the maximum development potential of each pod, the shelter and base terrain required to support the buildout of the mountain, and the lift capacity necessary to balance with the terrain.

The terrain in the Whistler Mountain Study Area includes 24 pods suitable for ski development covering 2,060 hectares. These pods have a potential of supporting approximately 30,100 skiers on 1,088 hectares of developed terrain, as shown in Table IV.1.



TABLE IV.1 WHISTLER MOUNTAIN TERRAIN CAPACITY ANALYSIS

Terrain Pod	Top Elevation m.	Bottom Elevation m.	Total Vertical m.	Horizontal Distance m.	Slope Distance m.	Average Slope %	Skill Class	Skier Density/Ha.	VTM Demand/Day	Total Area Ha.	% Ski Terrain Available	Available Ski Terrain	Total Skiers	Demand VTM (000)	Lift Capacity.Hr.
Α	1,027	679	348	1,540	1,579	23%	3	40	2,825	75.2	35%	26.3	1,050	471	1,353
В	1,058	1,018	40	340	342	12%	1	50	940	5.9	75%	4.5	220	33	821
С	1,145	1,024	121	740	750	16%	2	50	2,120	11.6	75%	8.7	440	148	1,224
D	1,364	895	469	1,680	1,744	28%	5	30	5,085	91.1	50%	45.6	1,370	1,106	2,358
E	1,349	653	696	2,160	2,269	32%	5	30	5,085	101.0	40%	40.4	1,210	977	1,403
F	1,677	1,297	380	1,210	1,268	31%	5	30	5,085	73.2	40%	29.3	880	710	1,869
G	1,679	1,044	635	1,890	1,994	34%	5	30	5,085	138.8	50%	69.4	2,080	1,679	2,644
H	1,842	1,418	424	1,820	1,869	23%	3	40	2,825	97.5	50%	48.7	1,950	874	2,062
I	1,854	1,579	275	1,160	1,192	24%	4	40	3,770	54.2	50%	27.1	1,080	646	2,350
J	1,846	1,417	429	1,490	1,551	29%	4	40	3,770	80.5	50%	40.3	1,610	963	2,246
K	2,006	1,742	264	1,040	1,073	25%	3	40	2,825	39.0	75%	29.2	1,170	525	1,987
L	2,170	1,453	717	1,650	1,799	43%	6	15	5,935	96.7	60%	58.0	870	820	1,143
M	2,180	1,743	437	1,020	1,110	43%	7	20	8,475	58.7	60%	35.2	700	942	2,155
N	2,101	1,399	702	2,420	2,520	29%	6	15	5,935	180.5	75%	135.4	2,030	1,912	2,724
0	1,987	1,497	490	1,390	1,474	35%	6	15	5,935	79.1	60%	47.5	710	669	1,365
P	2,115	1,733	382	1,030	1,099	37%	7	20	8,475	60.7	60%	36.4	730	982	2,571
Q	2,040	1,622	418	1,520	1,576	28%	4	40	3,770	105.6	75%	79.2	3,170	1,897	4,538
R	1,840	1,529	311	1,210	1,249	26%	4	40	3,770	58.6	75%	44.0	1,760	1,053	3,387
<u> </u>	2,010	1,700	310	970	1,018	32%	6	15	5,935	79.5	/5%	59.6	890	838	2,705
	1,966	1,405	561	1,600	1,696	35%	5	30	5,085	/5.5	50%	37.8	1,130	912	1,626
U	1,635	944	691	1,740	1,872	40%	6	15	5,935	119.3	35%	41.7	630	594	859
V	931	654	211	1,060	1,096	26%	5	40	2,825	25.1	40%	10.0	400	1/9	648
W V	1,450	890	200	1,860	1,944	30%	5	30	5,085	140.9	33%	49.3	1,480	1,195	2,111
	1,830	1,018	812	2,390	2,524	34%	3	30	3,085	211.9	40%	84.8	2,540	2,050	2,525
TOTAL			10,755		36,608					2,060.2		1,088.4	30,100		48,672

The Terrain Capacity Analysis also provides an indication of the general balance of the developable terrain. The Terrain Pod Balance Statement (Table IV.2 and Plate IV.1) reveals that the natural terrain at Whistler Mountain is fairly well balanced with noticeable shortages of terrain in the beginner and novice skill classifications and a significant surplus of terrain in the high intermediate skill classification. The detailed design of new trails will incorporate terrain at various skill classifications and will attempt to ensure a ski area with trails well balanced with Whistler's skier market.



TABLE IV.2 WHISTLER MOUNTAIN **TERRAIN POD BALANCE STATEMENT**

Skill Classification	Hectares	Skiers	Balance	Ideal
1 Beginner	4.5	220	0.7%	5%
2 Novice	8.7	440	1.5%	10%
3 Low Intermediate	114.3	4,570	15.2%	20%
4 Intermediate	190.6	7,620	25.3%	30%
5 High Intermediate	356.5	10,690	35.5%	20%
6 Advanced	342.2	5,130	17.0%	10%
7 Expert	71.6	1,430	4.8%	5%
Total	1,088.4	30,100	100%	100%
Ontimum Density –	31.5 \$1	viers/Hectare		
Weighted Demand =	4,641 V	TM/Skier/Da	у	

Optimum Density –	JI.J SKIELS/HECKALE
Weighted Demand =	4,641 VTM/Skier/Day

WHISTLER MOUNTAIN **TERRAIN POD BALANCE**



PLATE IV.1



.3 Future Whistler Valley Land Use

The growth in population, annual skier visits, visitor room nights and peak days predicted in studies carried out for the Resort Municipality of Whistler (RMOW) in the late 1990's, have for the most part not been realized. Although construction of the remaining undeveloped market beds in the Whistler village area and at Creekside has occurred, Tourism Whistler has not reported a corresponding increase in the number of sold room nights over the winter season. Paid winter season room nights peaked in 2000/2001 and have fluctuated with economic and snow conditions since then. The permanent resident population grew from 8,300 in 1997 to 9,900 in 2004 and has remained relatively constant ever since. Whistler's workforce grew from 12,500 full time equivalents (FTE) in 1998/99 to about 14,500 FTE in 2003/04 and has fluctuated up and down within a 500 FTE range since then.

Accommodation

The RMOW accommodation inventory that lists developed and undeveloped dwelling units and bed units by subdivision according to the Official Community Plan was updated for the Inventory section of this report. There are no significant undeveloped parcels within the Central Village Zone or at Creekside. All of the approved development within skier walking distance of the lifts has been completed. The only remaining large commercial accommodation to be developed is on the Holburn Lands (tennis centre) located between Village North and Montebello. The current owner is in the process of rezoning these lands from hotel to tourist accommodation with the intent of building market townhouses.

The Baxter Creek and Rainbow neighbourhoods have the largest inventory of undeveloped sites for both townhouses and single family homes. The Cheakamus Crossing area has serviced market lots and unserviced expansion potential. There are also serviced single family lots in Cypress Place, Stonebridge, Lakecrest, Nita Lake and Kadenwood. Kadenwood is the only one of these areas that is ski-in/ski-out. In addition there are a few undeveloped lots scattered through the more mature neighbourhoods. The estimated total number of dwelling units in Whistler at buildout is approximately 17,285, as shown in Table IV.3. The current number of bed units allocated to development sites is 61,273. Not included in these totals is the RMOW owned parcel between the existing Alpine subdivision and the First Nations land that could be developed for employee housing in the future, the First Nations land in the Callaghan Valley, and several RR1 zoned sites within Whistler that don't currently have bed units associated with them.



	То	otals
	Units	Bed Units
Single Family	3,103	18,618
Duplex	477	2,862
Multi-Family	4,161	15,222
Tourist Accommodation	3,117	9,044
Pension	144	242
Hotel	3,745	7,970
Employee/Resident Restricted	2,020	6,744
RV/Campsites	156	238
Hostel	362	333
TOTAL	17,285	61,273

TABLE IV.3 WHISTLER VALLEY DWELLING UNITS & BED UNITS BUILDOUT

Assuming a return to historic peak period occupancy and skier participation rates as outlined below in Table IV.4, the number of skiers expected to be generated from accommodation within Whistler Valley on a peak day at buildout is approximately 26,620, as shown in Table IV.5. Adding in day skiers from outside of Whistler (Pemberton to the north and Squamish and the lower mainland to the south), at the rate of 20 to 25 percent of total skiers, as well as destination and weekend visitors who are on the first day of their trip (5 to 10 percent of all skiers), we anticipate peak day skier visit levels in the 35,400 to 39,300 level. For planning purposes we will assume a peak day at build out in the middle of this range at about 37,000 skiers on both mountains. Of these, only about 13,000 skiers (less than 35 percent) will be coming from accommodation either within skier walking distance of one of the existing valley staging lifts or on the free village shuttle route (areas shown shaded in green on the table), leaving between 22,500 and 26,300 skiers needing transportation to reach the lifts.



TABLE IV.4PEAK DAY OCCUPANCY RATES AND SKIER YIELDS

	Hotel Hostel Pension	TA Camp- ground	Multi Family	Single Family Duplex	Resident Restricted
Bed Unit Occupancy Rate	90%	80%	70%	60%	100%
Skier Participation Rate	80%	80%	60%	50%	25%
Skier Yield	72%	64%	42%	30%	25%

TABLE IV.5 SKIERS FROM WHISTLER VALLEY ACCOMMODATION AT BUILDOUT PEAK DAY OCCUPANCIES

	Developed Bed Units at Buildout						
	Hotel	ТА	Multi	Single	Resident		
	Hostel	Camp-	Family	Family	Restricted		Skiers
	Pension	ground		Duplex			
South of Creekside	344	946	2,286	3,360	2,312		3,400
Creekside	-	1,746	858	1,836	322		2,110
Between Creekside & Village	176	1,104	3,487	4,092	543		3,660
Whistler Village	3,869	585	392	-	-		3,320
Upper Village	1,674	3,491	3,317	288	946		5,160
Village North	1,390	889	1,831	-	29		2,350
North of Village North	1,092	521	3,051	11,904	2,592		6,620
Totals	8,545	9,282	15,222	21,480	6,744		26,620
Day Skiers from Outside Whistler - 20 to 25% of all skiers						to	9,933
Weekend & Destination Skiers on First Day of Trip - 5% to 7% of all skiers				1,775	to	2,740	
Total Skiers 35,493						to	39,293



V. MOUNTAIN FACILITIES

.1 Goals and Objectives

The Whistler Mountain Master Plan Update 2013 is an update of the Whistler Mountain Master Plan 1998. This update is required due to changes in the destination ski resort industry, the evolving needs of skiers coming to Whistler Blackcomb advances in lift technology, and the requirement from the Province of British Columbia to provide an updated plan that both documents all the improvements to the ski area that have taken place since the last Master Plan was submitted and provides a revised vision for the ski area going forward.

Since the last Master Plan Update in 1998, overall skier visits at Whistler Blackcomb have increased substantially, from 1.7 million during the 1996/97 season to almost 2.2 million during the 2001/02 and 2007/08 seasons, fluctuating somewhat during those years. Although skier visits for the 2008/09 season were slightly lower because of a below normal snowpack, high avalanche danger and the global economic crisis, Whistler Blackcomb still received around 1.9 million skier visits. From the inception of Blackcomb in 1980 until their big expansion in 1987, Whistler was the dominant player with over 60 percent of the combined visits. After Blackcomb expanded, they took over the majority of skier visits until after Intrawest purchased Whistler in 1997 and made a concerted effort to move the larger proportion of skiers to the larger Whistler Mountain. Since the construction of the Fitzsimmons Express, Whistler has attracted between 54 and 57 percent of the total skier visits on a daily basis.

Within Whistler, heavier traffic has also become a concern with the Whistler Village Gondola occasionally exceeding comfortable staging capacity and the Village core and the Resort Municipality approaching "buildout". Common ownership of both Blackcomb and Whistler Mountains has provided an opportunity for the two mountains to work together more effectively and new facilities can be directed towards both mountains in a strategic manner to optimize the customer experience and attract more skiers to the resort. The opening of the PEAK 2 PEAK Gondola in December 2008 has allowed skiers to move easily between the alpine areas of the two mountains.

The Master Plan includes the retrofitting of existing equipment, integrated with the addition of new terrain and facilities. The objectives of the Whistler Mountain Master Plan are as follows:



- Optimize the use of and operational efficiency of the existing physical plant.
- Balance lift and trail capacities.
- Provide maximum capacity for minimum capital and operating costs.
- Balance mountain capacity with skier services.
- Replace or retrofit aging equipment.
- Provide base staging areas in balance with mountain facilities.
- Each phase of development must provide an optimally balanced facility, while at the same time move toward the ultimate goal.
- Retain plan flexibility to respond to changing market demands and technological improvements.
- Define the ultimate planning goals to guide management and inform public agencies during the ensuing five to ten-year period.

The following section presents descriptions of the proposed installation of new equipment and the upgrading of older facilities. We have utilized a number and letter code to indicate the type of lift installations proposed. The coding is illustrated below:

MC	Moving Carpet Conveyor Lift
T-Bar	T-bar Surface Lift
3C	Triple Chairlift – Fixed Grip
4C	Quadruple Chairlift – Fixed Grip
D4C	Detachable Quadruple Chairlift
D4C-B	Detachable Quadruple Chairlift with Bubble
D6C	Detachable Six-Passenger Chairlift
D8C	Detachable Eight-Passenger Chairlift
D6C/8G	Combi Lift; Six Chair and Eight-Passenger Gondola
D6G	Detachable Six-Passenger Gondola
D8G	Detachable Eight-Passenger Gondola
D10G	Detachable Ten-Passenger Gondola
3S	3 Cable Gondola (PEAK 2 PEAK Gondola)

The major lift construction during the last 10 years was on Whistler Mountain, with the installation of the Fitzsimmons and Garbanzo chairs in 1999, the Symphony



Express in 2006 (also expanding the skiable terrain) and the installation of the PEAK 2 PEAK Gondola in 2008, which now connects Whistler Mountain to Blackcomb Mountain. In the summer of 2013, the Harmony Express D4C was replaced with a detachable six passenger chairlift and the use Harmony equipment was moved to the Crystal area on Blackcomb. Whistler Blackcomb management has undertaken a detailed review of events since the last major expansion phase, as well as the needs for the future. The general conclusions are discussed below.

a). Operations

Over the last 20 years, Whistler Mountain has successfully replaced many of its old ski lifts with new technology lifts in the form of detachable quadruple chairlifts for return cycle skiing and six and eight-passenger gondolas for access. Whistler's lift configuration, as of September 2013, consists mostly of the new technology lifts, although there are still 2 fixed grip chairlifts (Olympic and Franz's) and two T-Bars which range in age from 47 years (T-Bar 1) to 26 years (Franz's – installed using old Peak Chair equipment).

Since the last Master Plan was prepared in 1998, Whistler Mountain has replaced the Roundhouse and the skier service buildings in the Creekside base with new, impressive and more efficient buildings, as well as constructed the Chic Pea mountain restaurant. Although the new facilities have added to the skier capacity and the skier experience, they can still be overcrowded on busy days and the analysis in the Inventory section shows that there is still a pressing need for more on-mountain indoor restaurant seats to accommodate the existing levels of skier visits.

b). Market

Skier visitation at Whistler Mountain has increased substantially substantially, from 577,647 during the 1990/91 season to almost 1.2 million in 2006/07 and 2007/08. Combined skier visits at Whistler Blackcomb exceeded the 2 million mark for the first time in 1998/1999 with the highest number of visits occurring in 2007/08 at just under 2.2 million. With the increased accommodation capacity constructed since 1998 and the remaining outstanding approved development potential within the RMOW, skier visits could reach the 2.8 million mark with a return to historic accommodation occupancy levels. An increase to 2.8 million skiers would be almost a 36 percent increase over the average visit level of the last 6 years and a 27 percent increase over the 2007/2008 season. To maintain and improve the skier experience at Whistler, the skier capacity must increase at an equal or faster pace than the anticipated increase in skier visits.



To maintain and improve the skier experience at Whistler, the skier capacity must increase at an equal or faster pace than the anticipated increase in skier visits. Since Blackcomb Mountain is very close to buildout in terms of available terrain capacity, much of the needed increase in capacity will likely occur at Whistler Mountain. The resort as a whole and Whistler Mountain in particular, must maintain and improve its attractiveness for all market segments to meet guest's increasing expectations. It is considered that all skiers, in particular local and regional skiers, desire more terrain and terrain variety, as well as improved skier service facilities and easier access to the mountain. Competition for destination skiers is fierce with new and improved products coming on line in Colorado, Utah, California, Oregon and elsewhere in British Columbia. Whistler Blackcomb must compete with these regions in value, quality, service and amenities.

c). Ski Terrain

Whistler Mountain presently requires more beginner, intermediate and high intermediate terrain to improve the overall ski terrain balance. Whistler Mountain (and Blackcomb Mountain) is well known for the quality and extent of expert and "double black diamond" terrain, which should also be maintained. Improved access to these areas should also be undertaken, wherever possible. At the same time, a good balance between the lift and trail systems must be maintained. To improve the overall skiing experience, small renovations to trails may be necessary in many different areas over the years, ranging from regrading to widening, etc.

A reorganization of skier service spaces and operations facilities will also be needed as operational changes are made to respond to the need for a high quality guest experience. Figure 14a graphically illustrates the Whistler Mountain Master Plan at buildout.

Whistler Mountain still has three major areas which can be exploited to increase terrain extent and variety, namely:

- Flute Peak and Basin
- Whistler Westside/Southside including Bagel Bowl and Khyber Pass areas
- Infilling between Emerald and Harmony Chairs



.2 General Concept

Since the 1998 Master Plan was filed, Whistler Mountain has completed the lift and skier service work proposed for Phase 12, and certain portions of the lift, trail and skier service work proposed for Phases 13, 14 and 15. Lifts installed include the Peak Express D4C, Franz's 3C, Fitzsimmons Express D4C-B, Garbanzo Express D4C, Symphony Express D4C and the PEAK 2 PEAK Gondola linking the two mountains. The Harmony Express, a detachable quadruple chair was replaced with the Harmony 6, a detachable six passenger chair in 2013. Significant trail development in the Garbanzo and Symphony zones was also completed in conjunction with the lift construction. Skier service improvements include replacement of the Roundhouse restaurant in 1998, redevelopment of the Creekside base area starting in 2002 (including a new guest services area, children's ski school facility and a restaurant/bar) and the construction of the Chic Pea restaurant in 1999. With the consolidation of the two mountains, the facility beside the Longhorn (now known as the Garbanzo Bike & Bean or Essentially Blackcomb) also came under Whistler's control and provides guest services, coffee shop, accessory retail, rentals, etc. There are also several rental and retail outlets near the base of the lifts in the Village and Upper Village that are operated by Whistler Blackcomb.

Future plans for Whistler Mountain include adding new lifts and trails in Symphony Bowl (on Flute Mountain) and on the west and south flanks of the mountain, as well as upgrading several existing lifts, improving existing trails and adding more access capacity. Beginner zones will be expanded and renovated to improve the experience for learning skiers, both enrolled in ski school and learning on their own. As part of the future of Whistler Mountain, management has also expressed a desire to increase the quality of the recreation experience (fewer lift lines, better ski school experience, more restaurant space, etc.) in conjunction with increasing the quantity of skiing as required by increases in skier visitation in the future. In addition, the size of the mountain ensures that weather conditions are quite varied at different elevations and exposures on the mountain, meaning that operations and the popularity of any given lift can differ quite drastically on any busy day of the season.

In addition to the new or replacement lifts outlined in this Master Plan, existing lifts will need to be replaced as they reach the end of their service life. All lift installations or replacements will be with state of the art lift technology that will best integrate with the overall mountain operation. In the following section, the Master Plan is described and divided into an anticipated three major phases of development, as illustrated on Figure 14a. However, the phasing of new lifts or lift upgrades may differ from that outlined in this report as Whistler Blackcomb reacts to changing market needs for additional terrain or additional lift capacity in certain areas.


Phase 15	Upgrade and expand the current skier learning facilities in and around Olympic Meadows, upgrade the Emerald lift and add the
	Yellow Express (adding capacity to improve skier circulation in the two most popular zones on the mountain)
D1 1.C	
Phase 16	Increase the staging capacity out of Creekside Base, replace Franz's
	Chair and the T-bars, and expand lift service into Bagel Bowl.
Phase 17	Continue development of the Westside for return cycle skiing,
	increase skier access and build more lift capacity in Symphony
	Bowl. Construct two new base areas on the southside/westside of
	the mountain to take the pressure off the Village and Creekside
	portals.

In addition to the new lifts and trails, Whistler Blackcomb may to choose to add additional "snow play" structures similar to the existing Tree Fort. These ski to play structures nestled in the trees can add a sense of adventure and discovery for children in ski school and for families skiing with small children.

The Master Plan Summary as shown in Table V.1 and graphically illustrated on Figure 14a, lists the facilities anticipated in each phase of development including lift development, trail development and skier service buildings (operational buildings and infrastructure not included). It should be noted that market forces, equipment technology, availability of capital, company strategies, etc., may alter the order that facilities are constructed, similar to the situation following previous Master Plans.



TABLE V.1 WHISTLER MOUNTAIN SKI AREA DEVELOPMENT SUMMARY

Phase	Lifts Installed	Trails	Restaurants/
			Base Lodges
15	Replaced/Upgraded Lifts: Lift I(R) - Olympic Combi Lift - D4C/8G - 2000pph Lift F(R) - Emerald Upgrade - D6C - 3200pph New Learning Center at Top of Kadenwood Lift New Lifts: Lift P- Yellow Chair - D4C - 2800pph Olympic Meadows Reconfiguration (including new beginner lifts)	Olympic Chair Regrading Olympic Meadows Reconfig. Yellow Chair Trail Infill Learning Center Trail Mountain-wide Minor Trail Regrading & Widening	WASP Facility at Olympic Olympic Restaurant CLC Expansion Piccolo Restaurant & Lodge Symphony Restaurant Peak Mountain Top Restaurant Patrol Huts
16	New Lifts: Lift L -Orange Gondola - D8G - 2200pph Lift T - D4C - 2800pph Lift U - Bagel Bowl Express (S) - D6C - 3200pph New Learning Center at Top of Orange Lift Replaced/Upgraded Lifts: Lift K(R) - Franz's Express - D4C - 2800pph	Finale & Bagel Bowl Trails Learning Center Trails Mountain-wide Minor Trail Regrading & Widening	Orange Restaurant Orange Beginner Facility and/or WMSC hut replacement Bagel Top Restaurant Bagel Bowl Restaurant Symphony Base Restaurant Bagel Bowl Patrol Hut
17	New Lifts: Lift Oa - Flute Express - D6C - 3200pph or Lift Ob - Flute Shoulder - D4C - 2800pph Lift M - Robertson's - 3C or 4C - 2000pph Lift W - Big Timber Gondola - D8G - 2400pph Lift V - Kyber Express - D4C - 2400pph Lift X - Acess Gondola - D8G - 2800pph Lift Y - Whistler South - D6C - 3200pph Lift Z - Whistler South - D6C - 3200pph New Learning Center at Whistler South	Flute Trails Westside Trails Southside Trails Egress Trail to Cheakamus Mountain-wide Minor Trail Regrading & Widening	Raven's Nest Expansion Flute Peak Patrol Hut Expand Bagel Bowl Restaurant Whistler South Base Daylodge Cheakamus Base Daylodge

Ski Lifts

Over time, the last of the older lifts on Whistler Mountain will be replaced with detachable grip lifts and the remaining fixed grip chair(s) will be used for one time egress purposes. Even 'newer' detachable lift equipment may need to be replaced as it reaches the end of its service life. Replacement lifts on the lower mountain will be gondolas or chairs equipped with a cover or bubble to protect skiers from inclement weather experienced from time to time at the lower elevations. Since the master plan extends over a long period of time, lift technology will surely evolve and market trends and demand will shift, therefore, the master plan must remain flexible. As a consequence, the detailed phasing of the ski lifts may well change to reflect changes in technology or market conditions.



.3 Phase 15

<u>Lifts</u>

The Olympic Meadows area at the 1,000-metre elevation is the best and most popular beginner area in the entire resort, however it fills beyond capacity on some days and is missing some "micro-steps" in learning progression. Therefore, a reconfiguration of the lifts and terrain in this area is proposed to better serve the ski school and beginner skier progression. More small beginner lifts and the appropriate trails will be developed to provide the best learning experience possible. Modifications will include moving and adding small lifts such as moving carpets, handle tows, platters, etc., as well as reconfiguring the entire Olympic chair zone as described below.

The Olympic chair (Lift I) is proposed to be upgraded to a Combi Lift (combination detachable chairlift and gondola cabins) in a similar location. The top terminal will be moved slightly downhill and to the skiers' right to provide more separation from the skier traffic coming down the Upper Olympic trail onto the It Happens trail. The bottom terminal will also be moved slightly eastward to make space for the skier traffic and for the expansion of moving carpets in this zone used for teaching adults. The exact site plan will be determined when arrangement of the entire learning area is designed for construction. Trails in this area will need significant regrading to make the area more suitable for providing slopes with a natural progression for learning, as currently there are portions of the existing trails that are either too flat or too steep for the anticipated uses. Adjacent to the new Olympic lift, two trails with different slope gradients and character are proposed so that two separate levels of skiers are able to use this terrain. The creation of a bypass route for end of the day egress from the upper mountain that does not interfere with the beginner zone is proposed along the skiers' right side of the existing trail.

The Whistler Village Gondola (Lifts A & B) was originally installed in 1988 with 10-passenger cabins to provide direct access from the Village to the Roundhouse area. Because of its high use year round for skiers, bikers and sightseers, it was recently in need of renewal and in the summer of 2008, most of the running line equipment was replaced. While this upgrade had no perceptible effect for the guests, the equipment now has improved availability and will be reliable for many years to come. This equipment renewal also provides the option to replace the existing stand up gondola cabins in the future with 8-passenger sit-down cabins. With new cabins, a rated capacity of 2,800 pph could be achieved, which is slightly higher than the existing 2,640 pph. Whistler Blackcomb plans to perform the cabin upgrade in the near future.



The Yellow Chairlift (Lift P), a detachable quadruple chairlift rated at 2,400 people per hour, is proposed for zone between the Harmony 6 and Emerald Express chairs. This lift will service trails from Green Acres/Coyote/Bobcat through Ratfink and Chunky's Choice and provide additional upper mountain lift capacity when the Harmony chair is closed due to avalanche risk or high winds. New trails in the eastern part of this zone could be constructed several years prior to installation of the chairlift, as most of the terrain is also accessible from either the Harmony or Emerald chairlifts. These trails will range in difficulty from low intermediate to expert, due to the wide variety of gradients in this terrain pod. The variety of slopes in this pod and the naturally wide spacing of the trees in the eastern part of this pod make it a natural "playground" and therefore would provide an ideal zone for a terrain park or an entire pod of natural and man-made terrain features for skiers and snowboarders alike. The bottom terminal of the Yellow chair is slightly east of the bottom of Bobcat for easy access from that trail and on the existing Sidewinder trail, so that skiers can still easily access the bottom of the Emerald Chair or ski to Whistler Village when the lift shuts down or they simply decide to ski elsewhere (Sidewinder will be realigned below the lift terminal). This lift will have a vertical drop of 395 metres and a length of approximately 1,660 metres.

The Emerald detachable quad chair (Lift F) along with the Harmony 6 (Lift D), are the two most popular chairs on the mountain. The Emerald lift experiences long lines on virtually every weekend day and holiday, due both to the popularity of its terrain and its function as part of the access to the top of the mountain via Fitzsimmons and Garbanzo. In addition to these crowding issues, in the Inventory section it was determined that there is an excess of trail capacity in this zone. Therefore the existing chair is proposed to be replaced with a detachable 6 or 8-passenger chairlift with a higher capacity.

Dave Murray National Training Centre

The Dave Murray National Training Centre (DMNTC) has been set up as a permanent alpine ski training legacy from the 2010 Olympic and Paralympic Winter Games. Lower Raven and Ptarmigan were widened, regraded and received upgraded snowmaking so that they could be used as a training area during the games. Whistler Blackcomb, Canadian SnowSports Association and the Whistler Mountain Ski Club (WMSC) have formed a partnership to create a world class training facility on the Raven Ptarmigan run serviced by the Garbanzo Express. In addition to the runs, The Dave Murray National Training Centre will contain a start building at the top of Lower Raven, a slalom start building at the top of the slalom course, a 2 storey finish building at the bottom of the DMNTC, timing facilities, video training equipment and a surface lift servicing the slalom hill on It Happens. The finish building will contain training space for racers using the facility and will be equipped for viewing of video



analysis of the training runs. The National Training Centre will be developed by a non profit society created by the partnership and is intended to be managed by WMSC. The layout of the Dave Murray National Training Centre is illustrated in Figure 14b.

<u>Trails</u>

As mentioned in the previous section, the beginner zones above Olympic Station will be reconfigured to more efficiently use that space for a greater number of guests. This measure will include reconfiguration of the locations of lifts and learning areas and possible regrading, but may also include expanding the trails into currently treed or unused space.

In preparation for the new Yellow Chair (Lift P) and to provide more skiing and snowboarding in this zone, several runs are proposed to be cut in the zone between Green Acres and the Harmony Chair (Lift D), including the creation of more lightly gladed terrain.

To maintain and improve the overall skiing experience, small renovations to existing trails may be necessary in many different areas over the years, ranging from regrading to widening, etc. Several of these projects already identified include widening the area surrounding the intersection of Crabapple & Sleeping Cloud, widening Upper Olympic adjacent to the bottom of Emerald chair, recontouring and/or widening upper Whiskey Jack, widening Upper Franz's and widening and recontouring areas to construct the NTC (National Training Centre). Many other minor projects of this scale have been identified over the years and some will be realized as they become priorities and as capital becomes available.

Mountain Restaurants

During Phase 15, a new mountain restaurant is proposed for the Olympic Station area. The new restaurant could be located partially on top of, or adjacent to the existing Olympic Station building. This restaurant will service beginner skiers in the Olympic zone, as well as skiers in the Garbanzo zone and skiers using terrain accessed from the upper and lower sections of the Village Gondola. This building will also contain restrooms and may contain ski school/guest services and/or accessory retail.

The new facilities proposed at Olympic Station along with the existing Children's Learning Centre and direct gondola access, make this a good location to develop a major "adventure zone" destination that could offer a variety of recreational and/or educational activities in both summer and winter that would



complement skiing. These activities could take place during the day and evening and could be a combination of indoor and outdoor activities. This area could be used entirely as a base for activities, or used as a staging point for activities.

Small food service and warming facilities are proposed for the top of the Peak and in the Piccolo Saddle, near the top of the Symphony Express chairs during this phase. These new facilities would have 100 to 150 seats, slightly larger than the Crystal and Horstman Huts on Blackcomb, serving mostly prepared foods that simply require warming rather than frying or extensive cooking. These facilities would provide spectacular views and be extremely popular spots for lunch and rest breaks during the winter, as well as providing a destination for summer sightseers. Patrol facilities and public washrooms should be incorporated into each of these buildings.

The small Harmony Tea House at the top of the Harmony lift will be replaced by a mountain restaurant on the small peak just east of the existing hut. The new facility will have 100 to 150 seats with spectacular views in all directions. The existing Tea House can be used as a patrol facility.

A moderate sized restaurant (400 to 500 indoor) seats is proposed for the bottom of the Harmony Express. Although this restaurant site would not have as spectacular views as a mountain top location, it is located in a weather protected area where skiers congregate naturally. This restaurant will also be an attractive area for many of the skiers from the Symphony Bowl who wish to warm up and have lunch while still remaining in that general area. In addition to the indoor restaurant seats, this building would provide restroom facilities and small spaces for retail sales and large open deck areas for warm sunny days.

Another small restaurant and/or warming facility may be constructed at the bottom of the Symphony lift to provide shelter and food for skiers wanting to remain in the Symphony/Flute area instead of moving to Harmony. This location is very protected from the elements and is adjacent to two major return cycle skiing lifts at buildout. There are currently portable restrooms in this location, which, at a minimum, would need to be expanded when the Flute Chair is added in the final phase.



.4 Phase 16

Lifts

Whistler Mountain already has some overcrowding issues at the Creekside base several times per year resulting in very long lift lines to access the ski area. The 1,268-stall day skier parkade is the first opportunity for day skiers from south of Whistler to park. The Creekside redevelopment provided a large public accommodation bed base and convenient transit drop-off facilities, resulting in days when over 5,500 skiers access the ski area through this portal. The return cycle skiing trails serviced by the Creekside gondola; Lower Dave Murray, Lower Franz's, as well as Peak to Creek are some of the best high intermediate "cruising" trails on the mountain when conditions are ideal, causing skiers to want to return ski during the morning upstaging period further exacerbating the lift line situation. In addition, with the development of the Cheakamus Crossing neighbourhood, the proposed Park'n Ride at Function Junction, as well as the fact that the PEAK 2 PEAK Gondola makes access to Blackcomb easy from Creekside, it is anticipated that there will be increased demand for staging through this portal. The increased demand will be mitigated by installing a new gondola, (Lift L) linking the Creekside base with the knoll at the top of the Garbanzo Lift H. The bottom terminal will be located adjacent to the existing Creekside gondola and the top will be located near the existing fuel depot at approximately the 1,676-metre elevation, giving the lift a total vertical rise of about 1,023 metres. From this top terminal, skiers can easily access any of the lifts in the mid mountain area or access the upper mountain using the existing Big Red Chair (Lift E) the new Franz's Lift K (R) or Emerald Lift F (R) both with increased capacity in Phase 15. The fuel depot will be relocated in conjunction with construction of this lift and a mountain restaurant and Learning Centre will be constructed nearby.

The Orange Gondola (Lift L) should be installed with a capacity in excess of 2,000 pph; the exact capacity will depend on many factors at the time of installation including anticipated needs (depending on Park'n Ride capacity & operations, transit, anticipated contribution of skiers from nearby increases in accommodation, etc.), cost of construction, advances in lift technology and market projections in the medium to long term. In addition to skier access, this lift will likely be quite attractive from a return skiing perspective, as it will allow skiers to return ski the entirety of the Dave Murray or Franz's trails from top to bottom.

In conjunction with the installation of the Orange Gondola, a Learning Centre is proposed near the top of the Garbanzo lift. The terrain at the Creekside base is unsuitable for beginners because of the slope, space and snow conditions, therefore it should be moved up the mountain where conditions are better suited for this purpose.



With the installation of the Orange Gondola, skiers can both upload and download to the Learning Centre. The proposed restaurant will provide food, restrooms and warming facilities close by. The proposed location is quite protected from the wind and has terrain that can be used for a skier/snowboarder Learning Centre with some terrain modification. The Learning Centre would include several moving carpets and a "walk-up" learning area to provide suitable terrain for the first few steps of learning. The existing ski club cabin in this area could be converted, replaced and/or expanded for use by beginners and children and the ski club functions could be relocated to another building located elsewhere in the area or incorporated into the finish building for the Dave Murray National Training Centre.

The most important and most exciting return cycle skiing lift proposed for the Westside zone is the Bagel Bowl (Lift U), stretching from the 1,365-metre elevation on the westside, up to the bench above Cockalorum at the 1,970-metre elevation. This lift services 605 vertical metres of terrain in the intermediate to expert skill classes. Some of this terrain (West Bowl, Bagel Bowl, Love Canal/Peak to Creek) is already popular ski terrain and several new trails below treeline will be cut to provide additional trails serviced by this lift.

To access the Bagel Bowl lift and provide easy egress from the bottom of the Bagel Bowl lift, a new detachable chairlift named Lower Finale (Lift T) has been proposed for the terrain pod below the Grand Finale ski trail out of Lower Whistler Bowl. This lift will allow skiers from the westside lifts to get back up to Highway 86 without having to ski all the way down to Creekside. From Highway 86, they can make their way to Mid-station Road and then Expressway if they wish to go back to Whistler Village. Several trails are also proposed for this pod, falling almost exclusively in the advanced and expert skill classes, although skiers in the intermediate and high intermediate skill classes can use Highway 86/Franz's Trail or Peak to Creek to return ski on this lift. Skiers in the intermediate skill classes can easily access the bottom of the lift to move towards or away from the Bagel Bowl lift. Access from the existing ski area to this lift is via Crossroads or Mid Franz's. This lift could initially be installed as a fixed grip quad chair to make the Bagel Bowl project more economical. The exact location of the bottom terminal of the Lift T depends partly on determining where access trails can practically cross the adjacent creeks.

An upgrade of Franz's Chair (Lift K/R) to a detachable quadruple chairlift in a slightly different alignment is proposed to provide better service to guests skiing in this zone and also provide the third high capacity link in the second staging route from the Village and Creekside to the mountain top. By placing the top station on the ridge above the top of the existing T-bars, this lift will effectively replace the existing Franz's fixed grip triple chair and the two T-bars as well as provide better access to



Glacier and Harmony Bowl than the existing T-bars provide. The new lift has a total length of 1,782 metres and a total vertical rise of 385 metres. Even with the longer alignment of this lift, the ride time on a detachable lift will be approximately 5.9 minutes, almost 3 minutes shorter than the 8.8 minute ride on the existing Franz's Chair.

New trails will be cut to service the Bagel Bowl (Lift U) and Lift T chairlifts. The upper elevations of the terrain serviced by the Bagel Bowl lift are mostly untreed, but the bottom is located in a heavily treed area, therefore, there will be little tree cutting needed at the higher elevations, selective cutting at the mid elevations and significant tree removal at the lowest elevations. Lift T is located completely within well treed areas on fairly steep slopes; therefore, the trails proposed for this area are designed as traditionally cut trails, requiring tree removal ranging from 25 to 50 metres wide.

Mountain Restaurants

A new mountain restaurant adjacent to the top of the Orange gondola is proposed to supplement the food services currently in short supply on the mountain, as well as to provide a destination for skiers and sightseers coming from Creekside. This facility could also be designed to hold functions smaller than those currently held at the Roundhouse, since it would have direct gondola access similar to the Roundhouse. Located on the south side of the lift, the restaurant will have southern exposures and views towards the Peak and down valley.

Two restaurants are proposed for the Westside of the mountain in Phase 16; a hut at the top of the Bagel Bowl lift with 75 to 150 seats and a larger restaurant facility (300 to 400 seats) at the bottom of the same lift (Lift U). Both of these facilities will be accessible from Lift U and the Peak chair. The restaurant at the top of Bagel Bowl will have expansive views and southern exposures, but is located at a high elevation above treeline and will be very susceptible to inclement weather. The restaurant at the bottom of the lift will be the primary food service facility in this zone, allowing skiers using this area to remain in the area rather than going all the way back to Raven's Nest or the Roundhouse to get food and shelter and then restaging to get back to the Bagel Bowl area. The restaurant near the bottom terminal will also include restrooms, a small retail shop and may include some guest services for ski school and general information.



.5 Phase 17

Symphony Bowl Lifts

A detachable six-passenger chairlift is proposed for the east side of Symphony Bowl, rising up onto Flute Mountain either onto the peak of Flute or the northern shoulder (Oa and Ob as shown in the Mountain Master Plan map Figure 14a). Lift Oa, rises to the peak of Flute and provides skiing access to the entirety of the north and west flanks of Flute with little or no hiking. Option Ob, located on the lower northern shoulder, provides gravity access to about one-half of the terrain on Flute, with the remainder of the skiing accessible via a short hike accessible from below the top of Symphony chair (like the existing situation) or from the top of the Option Ob lift. The Flute lift services low intermediate through expert terrain on slopes which are untreed in the upper elevations, transitioning to naturally gladed and then densely forested slopes as one skis down to the lift base. Trails in the mid and lower elevations will require some tree cutting and limited grading and summer grooming. The Flute chair will require some new trails to be cut below treeline and selected tree removal in the gladed zones. Areas above treeline areas may also need limited fine grooming to provide an ideal skiing surface at the beginning of the season.

The Robertson's Chair (Lift M) is a fixed grip chairlift proposed to connect the bottom of the Flute and Symphony chairlifts with Harmony Ridge so that skiers can egress from Symphony Bowl if weather or mechanical issues render the Symphony Bowl lift(s) inoperable. In addition to providing egress from Symphony Bowl, it will also provide limited return cycle skiing on the "expert only" slopes of Robertson's and Harvey's, etc.

A second option for egress from Symphony Bowl has also been explored; a Tbar or platter surface lift stretching from a point 750 metres from the Symphony lift at 9 percent downhill grade up to the end of the Burnt Stew Road (above the Harmony chair bottom terminal); the total length of the lift is about 600 metres. This surface lift would be operated intermittently, likely only in emergency situations and/or at the end of the day.

Westside/Southside

The 1982 Ski Area Master Plan reserved terrain to the west of the Controlled Recreation Area for Whistler Mountain's future expansion and the 1991 and 1998 Master Plans identified several lifts and a base area to be developed in this zone. This terrain is now within the CRA and Phase 17 describes the revised plans for further development of lifts, trails and base area development within this area, including two staging portals. Depending on the future of the hill, how Whistler



Resort continues to develop, transportation problems and solutions, etc., this base may be required after completion of the rest of the ski area, or possibly at an earlier date. This phase will see the creation of a new day skier base area above Millar's Pond and Cheakamus Crossing (accessible from Function Junction/Cheakamus Crossing via a new access road), one exclusively transportation lift, one transportation and skiing lift and two beginner lifts. The proposed South Base and/or the Cheakamus Base will require parking for day skiers in addition to any accommodation development and will require a daylodge complete with all skier services required to stage skiers as they arrive in their cars.

A second detachable chairlift (Lift V) is proposed for the Khyber area to the west of the (Lift U) Bagel Bowl chairlift. The Khyber lift has a vertical rise of approximately 635 metres, stretching from the Microwave Tower road to the ridge above Bagel Bowl at the 1,830-metre elevation. This lift will have a rated capacity of 2,400 pph, servicing terrain in the intermediate to expert skill classes.

The Big Timber Gondola (Lift W) is the third staging lift from Creekside and is proposed to connect to the Westside expansion area. The top of this lift is located on a knoll just off the existing Dusty's Descent trail and provides easy access to all of the Westside lifts, including Lift T which provides access to the rest of the ski area. The Big Timber lift will primarily provide access to the ski area, but like most lower mountain access lifts at Whistler, also provides limited return cycle skiing on the existing Peak to Creek, Dusty's Descent, Big Timber and Home Run trails, as well as a couple of new trails and bypass sections of these trails.

Lift Y, the Whistler South detachable six-passenger chairlift, forms the main access from the South Base to the Westside lifts and the rest of the mountain. This lift will also be used for return cycle skiing, but due to its elevation and exposure, the slopes may not be ideal for this purpose during periods of low snow or warmth. A Learning Centre containing a short fixed grip chairlift (Lift Z) and a moving carpet is proposed for the relatively flat terrain adjacent to the bottom of the Whistler South gondola. The terrain associated with this lift has relatively good exposures for snow holding, is easily accessible and suitable for advanced beginners and novice skiers.

A gondola (Lift X) is proposed to connect the parking lots in the valley bottom with the South Base. The valley bottom parking lots near Function Junction and Cheakamus Crossing will initially be used as "Park'n Ride" lots for day skiers from Vancouver, Squamish and Whistler South, and once demand warrants, this gondola will be installed to move skiers up to the Westside Lifts and the main ski area via the South Base.



<u>Trails</u>

The Flute chair (Lift O) will require new trails to be cut below treeline and selected tree removal in the gladed zones. Some above treeline areas may also need limited fine grooming to provide an ideal skiing surface at the beginning of the season.

New trails will also be cut on the Westside/Southside in the Khyber/Bagel Bowl zone and the Whistler South zone, as well as near the Big Timber Gondola for return skiing on that terrain. Glading will also take place in selected parts of the Bagel Bowl and Khyber terrain to open up the terrain to more skier use (this area is currently lightly used for skiing although it is not lift serviced). A ski trail will also be constructed from the South Base down to the valley base area. This trail will be constructed mostly as a skiway due to the shallow grades present, and will be used primarily as an egress trail when snow conditions allow.

Mountain Restaurants

The Raven's Nest restaurant will be replaced by a new restaurant located slightly farther to the west, closer to the edge of the steep slopes, thereby providing a spectacular view of the Whistler Valley at Creekside, the Callaghan Valley and all points west of Whistler Mountain. This new restaurant would contain approximately 150-250 seats and could also be used for medium sized functions in the summer or evenings as it is directly accessible from the Creekside Gondola.

A full service daylodge will be constructed in conjunction with the South Base including ticket sales, guest services, rentals, retail, etc. for skiers using this portal for staging in the morning. Due to the fact that Lift Y is anticipated to get limited use as a return cycle skiing lift and the fact that skiers at Whistler Blackcomb have a preponderance to eating lunch up on the mountain, the food service facility here will be limited to 100-200 seats, enough to service skiers on the beginner lifts, morning arrivals and a small portion of skiers using Lift Y for return cycle skiing. It is anticipated that most skiers in the Westside/Southside would prefer to stay higher on the mountain and eat at one of the Bagel Bowl lift's restaurants. A small children's ski school facility will also be built here, either contained in the same building as the daylodge or in a stand-alone building closer to Lifts Z and the moving carpet.

The day skier base in the valley near Function Junction/Cheakamus Crossing will contain parking lots, and all skiers using this lot will have to pass through the South Base, therefore, the only skier services planned for this base will be ticket sales. Restrooms will likely be included for the convenience of arriving or departing



skiers. Skiers wanting any other services will simply walk into the South Base daylodge after getting off Lift X, which will be located in close proximity.

Summary of Master Plan

The conclusion of Phase 17 constitutes the buildout of Whistler Mountain under the 2010 Master Plan Update. At buildout, Whistler Mountain will have a total capacity of approximately 29,800 skiers per day, based on all lifts being open and available and experiencing lift lines on every lift on the mountain in the 10-20 minute range. Also listed is the calculated SCC under two differing operational conditions: Mode 2, when the upper mountain is closed due to adverse weather conditions, and Mode 3, when the lower mountain has insufficient snow or undesirable snow conditions for skiing. Both modes can easily occur during peak periods in December.

The Lift Development Schedule for the Phase 17 lifts is listed in Table V.2 and the alignments of the lifts are graphically illustrated on the Mountain Master Plan, Figure 14a.

Lift Number	Α	В	С	D(R)	Ε	F (R)	G	Н	Ι
Lift Name	Lower	Upper	Creekside	Harmony	Big Red	Emerald	The	Garbanzo	Olympic
	Village	Village	Gondola	Express	Express	Express	Peak	Express	
	Gondola	Gondola							
Lift Type	D8G	D8G	D6G	D6C	D4C	D6C	D4C	D4C	Combi
Top Elevation m.	1,020	1,834	1,297	2,107	1,847	1,839	2,175	1,675	1,139
Bottom Elevation m.	677	1,020	653	1,582	1,295	1,415	1,774	1,018	1,025
Total Vertical m.	343	814	644	525	552	424	401	657	114
Horizontal Distance m.	1,480	3,340	1,920	1,612	2,390	1,760	995	2,010	700
Slope Distance m.	1,519	3,438	2,050	1,706	2,495	1,833	1,073	2,115	709
Average Slope %	23%	24%	34%	33%	23%	24%	40%	33%	16%
Operational Capacity	2,800	2,800	2,097	3,600	2,800	3,200	2,500	2,800	2,000
V.T.M./Hr.(000)	960	2,279	1,350	1,890	1,546	1,357	1,003	1,840	228
Rope Speed m/sec.	5.5	5.5	5.2	5.1	5.1	5.0	5.0	5.1	5.0
Trip Time min.	4.60	10.42	6.57	5.93	8.19	6.11	3.58	6.94	2.36
Operating Hr./Day	7.0	7.0	7.0	6.5	7.0	6.8	6.0	6.8	6.5
V.T.M. Demand/Day	2,568	2,970	4,534	5,704	4,752	2,903	6,994	4,269	2,120
Loading Eff. %	95%	95%	95%	90%	95%	85%	95%	95%	90%
Access Reduction	70%	43%	60%	10%	28%	16%	6%	15%	0%
SCC Skiers/Day	750	2,890	790	1,750	1,560	2,240	770	2,350	630
Mode 2-No Upper Mtn	750	2,890	790		1,560	2,240	770	2,350	630
Mode 3-No Lower Mtn		2,890		1,750	1,560	2,240	770	2,350	630

TABLE V.2 WHISTLER MOUNTAIN LIFT SPECIFICATIONS – BUILDOUT



TABLE V.2 CONT'D WHISTLER MOUNTAIN LIFT SPECIFICATIONS – BUILDOUT

Lift Number	K(R)	L	Μ	Ν	Oa	Р	Q		
Lift Name	Franz's	Orange	Roberts on's	Symphony	Flute	Yellow	Fitz-	CLC	CLC
	Express	Gondola		Express	Peak	Express	simmons	Carpet	Handletow I
							Express		
Lift Type	D4C	D8G	4C	D4C	D6C	D4C	D4C-B	MC	HT
Top Elevation m.	1,997	1,676	1,937	2,035	2,010	1,850	1,020	1,026	1,035
Bottom Elevation m.	1,580	653	1,527	1,527	1,527	1,455	677	1,024	1,026
Total Vertical m.	417	1,023	410	508	483	395	343	2	9
Horizontal Distance m.	1,810	3,150	1,070	2,040	1,170	1,300	1,710	24	86
Slope Distance m.	1,857	3,312	1,146	2,158	1,266	1,359	1,744	24	86
Average Slope %	23%	32%	38%	25%	41%	30%	20%	6%	10%
Operational Capacity	2,800	2,200	2,000	2,400	3,000	2,800	2,650	1,200	669
V.T.M./Hr.(000)	1,168	2,251	820	1,219	1,449	1,106	909	2	6
Rope Speed m/sec.	5.0	6.0	2.3	5.1	5.0	5.0	5.0	0.8	1.7
Trip Time min.	6.19	9.20	8.30	7.08	4.22	4.53	5.81	0.50	0.85
Operating Hr./Day	6.5	6.8	6.5	6.0	6.0	6.8	7.0	6.8	6.8
V.T.M. Demand/Day	3,968	4,140	8,475	3,945	6,419	3,729	2,568		
Loading Eff. %	90%	90%	80%	95%	85%	95%	95%		
Access Reduction	7%	60%	75%	8%	0%	0%	70%		
SCC Skiers/Day	1,600	1,320	130	1,610	1,150	1,900	710	30	40
Mode 2-No Upper Mtn	1,600	1,320				1,900	710	30	40
Mode 3-No Lower Mtn	1,600		130	1,610	1,150	1,900		30	40

Lift Number									Т
Lift Name	CLC	Olympic	Olympic	Olympic	Olympic	Garbanzo	Garbanzo	Kadenwood	
	Handletow II	Carpet I	Carpet II	Carpet II	Carpet II	Beginner	Beginner	Beginner	
						Zone	Zone	Zone	
Lift Type	HT	MC	MC	MC	MC	MC	MC	MC	D4C
Top Elevation m.	1,032	1,026	1,032	1,033	1,047	1,672	1,676	880	1,635
Bottom Elevation m.	1,023	1,023	1,026	1,026	1,024	1,667	1,656	865	1,035
Total Vertical m.	9	3	6	7	23	5	20	15	600
Horizontal Distance m.	86	40	60	60	170	60	60	120	1,400
Slope Distance m.	86	40	60	60	172	60	63	121	1,523
Average Slope %	10%	8%	10%	12%	14%	8%	33%	13%	43%
Operational Capacity	374	1,200	1,200	1,200	1,200	1,200	1,200	1,200	2,800
V.T.M./Hr.(000)	3	4	7	8	28	6	24	18	1,680
Rope Speed m/sec.	1.4	0.8	0.8	0.8	0.8	0.8	0.8	0.8	5.0
Trip Time min.	1.07	0.84	1.26	1.26	3.57	1.25	1.32	2.52	5.08
Operating Hr./Day	6.8	6.8	6.8	6.8	6.8	6.0	6.0	7.0	6.8
V.T.M. Demand/Day									5,265
Loading Eff. %									90%
Access Reduction									37%
SCC Skiers/Day	30	40	80	90	150	70	150	120	1,230
Mode 2-No Upper Mtn	30	40	80	90	150	70	150	120	1,230
Mode 3-No Lower Mtn	30	40	80	90	150	70	150	120	1,230



TABLE V.2 CONT'D WHISTLER MOUNTAIN LIFT SPECIFICATIONS – BUILDOUT

Lift Number	U	V	W	X	Y	Z			
Lift Name	Bagel	Upper	Big	Function	Whistler	Whistler	Southside		Kadenwood
	Bowl	Khyber	Timber	Access	South	South	Beginner		Gondola
		Express	Gondola			Beginner	Zone		
Lift Type	D6C	D4C	D8G	D8G	D6C	4C	MC	TOTAL	Pulse G
Top Elevation m.	1,970	1,830	1,445	1,014	1,366	1,100	1,025		880
Bottom Elevation m.	1,365	1,195	653	604	1,013	1,013	1,013		653
Total Vertical m.	605	635	792	410	353	87	12	11,646	227
Horizontal Distance m.	1,810	1,670	2,640	2,870	1,150	420	160		871
Slope Distance m.	1,908	1,787	2,756	2,899	1,203	429	160	43,219	904
Average Slope %	33%	38%	30%	14%	31%	21%	8%	28%	26%
Operational Capacity	3,200	2,400	2,400	2,800	3,200	1,800	1,500	73,190	306
V.T.M./Hr.(000)	1,936	1,524	1,901	1,148	1,130	157	18	30,973	69
Rope Speed m/sec.	5.0	5.0	6.0	6.0	5.0	5.0	0.8		5.0 max.
Trip Time min.	6.36	5.96	7.66	8.05	4.01	1.43	3.34		
Operating Hr./Day	6.8	6.5	7.0	8.0	7.0	7.0	7.0	6.7	
V.T.M. Demand/Day	6,429	5,907	3,943		3,791	2,120			
Loading Eff. %	85%	95%	95%	95%	85%	80%			
Access Reduction	34%	0%	50%	100%	60%	0%			
SCC Skiers/Day	1,140	1,590	1,600	0	710	410	100	29,730	
Mode 2-No Upper Mtn		1,590	1,600	0	710	410	100	23,950	
Mode 3-No Lower Mtn	1,140	1,590		0				23,340	

As listed above, at build-out, the Whistler Mountain Master Plan would provide a calculated SCC of approximately 29,730, an increase of about 11,140 (or 65%) over the existing 17,990 skiers per day. There are also much wider variations in the SCC available in the 3 different modes, particularly on the days when the mountain top (high alpine) terrain is closed due to storm conditions. To accommodate these operating modes and to improve the skier's experience (shorter lines on busy days as one of the main goals) it is necessary to build more lift capacity than the proportional increase in forecasted peak day skier visits. To accomplish this goal, Whistler Mountain will aim to decrease the ratio of peak day skiers to calculated SCC from the existing 82-85% down to about 70-75%. This increase in Skier Carrying Capacity should make the skiing experience much more comfortable on those days when part of the mountain is closed or snow conditions are less than desirable in one or more areas. With the concurrent expansion of Blackcomb and the potential 35 percent increase in peak skier days on the two mountains combined to about 37,000, Whistler's share (60%) should be approximately 22,200 skiers on a peak day.



Table V.3 lists the ski trails developed at the conclusion of Phase 17 of the 2013 Master Plan. A total of 245 trails cover approximately 924 hectares and have a total combined daily capacity of approximately 23,885 skiers.

TABLE V.3 WHISTLER MOUNTAIN SKI TRAIL INVENTORY – BUILDOUT

				Ele	vation	Total	Horz.	Slope	Perce	nt Slope	Avg.	Horz.	Slope	Skiers A	t Area	
Trail		Trail	Skill	Тор	Bottom	Vertical	Dist.	Dist.			Width	Area	Area			Lift at
Name		No.	Class	Meters	Meters	Meters	Meters	Meters	Avg.	Steep.	Meters	Ha.	Ha.	Density	Total	Area
Lift A - Lower Village Gonde	ola															
Lower Olympic		A1	2	1,017	679	338	2,070	2,097	16%	27%	39	8.06	8.17	50	410	
Mid Fantastic		A2	3	854	780	74	300	309	25%	31%	48	1.45	1.49	40	60	
Northern Lights/Lower Far		A3	3	870	679	191	1,010	1,028	19%	40%	43	4.36	4.44	40	180	
Upper Fantastic		A4	3	1,160	864	296	1,730	1,755	17%	30%	57	9.80	9.94	40	400	
Crabapple	partial	B3	3	1,150	860	290	1,330	1,361	22%	35%	48	6.38	1.94	40	75	
Total Lift A		4	(not in	cluding	B3)			5,189	(not ii	ncluding	B3)		25.98		1,125	750
Lift B - Upper Village Gondo	ola															
Upper Olympic	2/3 area	B1	3	1,428	1,044	384	1,580	1,626	24%	32%	59	9.25	6.35	40	255	
Expressway		B2	2	1,295	1,020	275	2,220	2,237	12%	27%	21	4.58	4.62	50	230	
Crabapple	partial	B3	3	1,150	860	290	1,330	1,361	22%	35%	48	6.38	4.59	40	185	
Bear Cub	1/3 area	E17	2	1,592	1,363	229	1,540	1,557	15%	29%	20	3.06	1.03	50	50	
Upper Whiskey Jack	1/3 area	F1	2	1,835	1,662	173	1,030	1,044	17%	29%	39	4.03	1.36	50	70	
Lower Whiskey Jack	1/3 area	F3	3	1,661	1,418	243	1,090	1,117	22%	32%	50	5.47	1.87	40	75	
Upper Ego Bowl	1/3 area	F6a	3	1,805	1,637	168	720	739	23%	35%	54	3.86	1.32	40	55	
Lower Ego Bowl	1/3 area	F6b	3	1,637	1,476	161	810	826	20%	27%	57	4.65	1.58	40	65	
Ptarmigan Left	1/3 area	H3	5	1,497	1,455	42	290	293	14%	23%	40	1.15	0.39	30	10	
Ptarmigan	1/3 area	H4	5	1,520	1,095	425	1,500	1,559	28%	48%	50	7.45	2.58	30	75	
Orange Peel/ Dave Murray	1/3 area	H9	4	1,675	1,433	242	1,140	1,165	21%	39%	43	4.88	1.66	40	65	
Bear Paw	1/3 area	H10	4	1,429	1,068	361	1,150	1,205	31%	43%	46	5.29	1.85	40	75	
Tokum	1/3 area	H11	5	1,350	1,090	260	730	775	36%	46%	63	4.57	1.62	30	50	
Upper Orange Peel	2/3 area	E15	3	1,660	1,645	15	240	240	6%	6%	23	0.56	0.37	40	15	
Mid Pony Trail	2/3 area	E16	3	1,595	1,527	68	490	495	14%	33%	29	1.40	0.94	40	40	
Total Lift B		3	(not in	cluding	non "B" i	trails)		5,224	(not ii	ncluding	non "B	" trails)	32.13		1,315	2,890
Lift C - Creekside Gondola																
Crossroads	2/3 area	C1	4	1,270	1,188	82	595	601	14%	18%	9	0.55	0.37	40	15	
Fallaway	2/3 area	C2	6	1,225	1,165	60	160	171	38%	55%	81	1.30	0.93	15	15	
Dave Murray Downhill	2/3 area	C3	5	1,225	655	570	2,375	2,442	24%	46%	46	10.91	7.48	30	225	
	2/3 area	C4	4	1,030	995	35	100	106	35%	40%	40	0.40	0.28	40	10	
	2/3 area	C5	4	1,000	856	144	540	559	27%	38%	53	2.85	1.97	40	80	
Mid & Lower Franz's	1/3 & partial	<u>C</u> 7	4	1,434	775	659	2,250	2,345	29%	40%	50	11.26	2.11	40	85	
Total Lift C		6						6,223					13.13		430	790



				Ele	vation	Total	Horz.	Slope	Perce	nt Slope	Avg.	Horz.	Slope	Skiers A	t Area	
Trail		Trail	Skill	Тор	Bottom	Vertical	Dist.	Dist.			Width	Area	Area			Lift at
Name		No.	Class	Meters	Meters	Meters	Meters	Meters	Avg.	Steep.	Meters	Ha.	Ha.	Density	Total	Area
Lift D - Harmony Express																
Upper Burnt Stew		Dla	3	2,105	1,795	310	1,875	1,910	17%	32%	23	4.33	4.41	40	175	
Lower Burnt Stew		Dlb	3	1,748	1,633	115	1,630	1,634	7%	10%	11	1.86	1.86	40	75	
Crescendo		D2	6	1,930	1,730	200	930	951	22%	65%	54	4.98	5.09	15	75	
		D3	6	1,810	1,807	3	150	150	2%	2%	16	0.24	0.24	15	5	
Sun Bowl		D4	7	2,085	1,726	359	1,190	1,243	30%	71%	93	11.02	11.51	10	115	½ dens.
	1/2 area	D5	7	1,936	1,725	211	570	608	37%	103%	128	7.31	3.90	10	40	½ dens.
Harvey's Harrow	1/2 area	D6	7	1,915	1,715	200	350	403	57%	96%	90	3.16	1.82	10	20	¹∕₂ dens.
Robertson's	1/2 area	D7	7	1,925	1,700	225	470	521	48%	89%	209	9.83	5.45	10	55	¹∕₂ dens.
The Glades		D8	4	1,825	1,702	123	450	467	27%	35%	41	1.86	1.93	40	75	
Harmony Ridge		D9	4	2,033	1,583	450	2,160	2,206	21%	37%	32	6.99	7.14	40	285	
		D9a	4	1,780	1,717	63	160	172	39%	50%	30	0.48	0.52	40	20	
Gunbarrels		D10	7	1,735	1,586	149	370	399	40%	65%	107	3.95	4.26	5	20	1/4 dens
Lower Boomer Bowl		D11	7	1,685	1,584	101	360	374	28%	58%	92	3.32	3.45	5	15	1/4 dens
Boomer Bowl		D12	6	1,875	1,685	190	430	470	44%	65%	173	7.44	8.13	15	120	
Krummholz		D13	6	1,887	1,745	142	500	520	28%	60%	50	2.51	2.61	15	40	
Kaleidoscope		D14	7	1,910	1,760	150	405	432	37%	81%	150	6.06	6.46	20	130	
Low Roll		D15	7	1,935	1,770	165	395	428	42%	87%	81	3.18	3.45	20	70	
Upper McConkey's		D16	7	1,991	1,843	148	430	455	34%	84%	100	4.30	4.55	20	90	
Harmony Horseshoes Right	t	D17	7	2,015	1,889	126	250	280	50%	96%	70	1.74	1.95	20	40	
Harmony Horseshoes Left		D18	7	2,025	1,890	135	300	329	45%	88%	89	2.68	2.94	20	60	
Pika's Traverse		D19	3	2,105	1,835	270	1,715	1,736	16%	34%	14	2.36	2.39	40	95	
Camel Humps		D20	6	2,022	1,935	87	7,485	7,486	1%	52%	4	2.94	2.94	15	45	
Harmony Piste		D21	4	1,960	1,688	272	1,370	1,397	20%	47%	28	3.88	3.96	40	160	
		D21a	3	1,688	1,595	93	410	420	23%	23%	8	0.33	0.34	40	15	
Lower McConkey's		D22	6	1,770	1,583	187	610	638	31%	65%	60	3.66	3.83	15	55	
Little Whistler		D23	7	2,105	1,969	136	360	385	38%	80%	173	6.23	6.66	20	135	
Mumbling Rocks		D24	6	1,950	1,852	98	300	316	33%	47%	88	2.64	2.78	15	40	
		D25	5	1,880	1,785	95	400	411	24%	39%	43	1.71	1.76	30	55	
Waterfall/Bitter End		D26	6	1,810	1,717	93	420	430	22%	64%	52	2.17	2.22	15	35	
Lift Line		D27	7	1,727	1,600	127	325	349	39%	70%	31	1.02	1.10	20	20	
Lower G.S.		D28	5	1,690	1,583	107	350	366	31%	49%	58	2.04	2.13	30	65	
G.S.		D29	3	1,837	1,705	132	1,020	1,029	13%	24%	20	2.08	2.10	40	85	
Backbowl		D30	6	1,915	1,747	168	500	527	34%	52%	134	6.72	7.09	15	105	
Rabbit Tracks		D31	5	1,855	1,760	95	280	296	34%	42%	64	1.79	1.89	30	55	
Chunky's Choice		D32	6	1,805	1,585	220	620	658	35%	54%	46	2.86	3.03	15	45	
Dapper's Delight		D33	7	1,730	1,583	147	350	380	42%	87%	23	0.81	0.88	20	20	
•		D39	6	2,033	1,980	53	205	212	26%	36%	56	1.14	1.18	15	20	
Total Lift D		37			· ·			30,986					127.95		2,575	1,750



				Elev	vation	Total	Horz.	Slope	Perce	nt Slope	Avg.	Horz.	Slope	Skiers A	t Area	
Trail		Trail	Skill	Тор	Bottom	Vertical	Dist.	Dist.			Width	Area	Area			Lift at
Name		No.	Class	Meters	Meters	Meters	Meters	Meters	Avg.	Steep.	Meters	Ha.	Ha.	Density	Total	Area
Lift E - Big Red Express																
		E1	6	1,846	1,802	44	120	128	37%	48%	66	0.79	0.84	15	15	
		E2	3	1,846	1,810	36	135	140	27%	32%	58	0.78	0.81	40	30	
		E3	3	1,846	1,630	216	1,350	1,367	16%	39%	23	3.08	3.12	40	125	
		E4	4	1,830	1,700	130	400	421	33%	38%	122	4.88	5.13	40	205	
Roundhouse Roll		E5	5	1,830	1,775	55	350	354	16%	30%	37	1.28	1.30	30	40	
Pale Face		E6	7	1,787	1,679	108	240	263	45%	69%	64	1.54	1.69	20	35	
Porcupine	2/3 area	E7	3	1,675	1,600	75	575	580	13%	31%	42	2.40	1.61	40	65	
Fisheye	2/3 area	E8	3	1,713	1,582	131	590	604	22%	37%	38	2.23	1.52	40	60	
Little Red Run	2/3 area	E9	3	1,716	1,617	99	340	354	29%	39%	34	1.17	0.81	40	35	
Upper Franz's Creek	2/3 area	E10	3	1,735	1,601	134	500	518	27%	33%	55	2.76	1.91	40	75	
Old Man	2/3 area	E11	3	1,740	1,580	160	680	699	24%	36%	34	2.33	1.59	40	65	
Franz's Meadow	2/3 area	E12	6	1,710	1,580	130	495	512	26%	52%	69	3.42	2.36	15	35	
Papoose	2/3 area	E13	3	1,662	1,590	72	470	475	15%	20%	51	2.42	1.63	40	65	
Banana Peel	2/3 area	E14	2	1,655	1,581	74	365	372	20%	27%	33	1.22	0.83	50	40	
Upper Orange Peel	2/3 area	E15	3	1,660	1,645	15	240	240	6%	6%	23	0.56	0.37	40	15	
Mid Pony Trail	2/3 area	E16	3	1,595	1,527	68	490	495	14%	33%	29	1.40	0.94	40	40	
Bear Cub	2/3 area	E17	2	1,592	1,363	229	1,540	1,557	15%	29%	20	3.06	2.06	50	105	
Lower Pony Trail	2/3 area	E18	3	1,510	1,296	214	1,145	1,165	19%	30%	23	2.59	1.75	40	70	
Upper Insanity	2/3 area	E19	7	1,469	1,312	157	305	343	51%	69%	56	1.70	1.27	20	25	
Jimmy's Joker	2/3 area	E20	6	1,578	1,397	181	490	522	37%	52%	37	1.81	1.29	15	20	
Wild Card	2/3 area	E21	6	1,585	1,458	127	760	771	17%	50%	23	1.75	1.18	15	20	
Upper Franz's	2/3 area	E22	5	1,590	1,392	198	745	771	27%	43%	23	1.71	1.18	30	35	
Goat's Gully	2/3 area	E23	7	1,490	1,305	185	450	487	41%	70%	45	2.03	1.46	20	30	
Mid Dave Murray	2/3 area	E25	4	1,433	1,296	137	640	654	21%	45%	37	2.39	1.63	40	65	
Women's DH		E26	6	1,465	1,385	80	250	262	32%	32%	34	0.84	0.88	15	15	
Mid & Lower Franz's	1/3 & partial	C7	4	1,434	775	659	2,250	2,345	29%	40%	50	11.26	1.80	40	70	
Doom & Gloom	partial	G10	6	1,924	1,678	246	635	681	39%	59%	146	9.27	5.76	8	45	√2 dens.
	partial	G11	7	1,935	1,692	243	570	620	43%	65%	112	6.39	4.03	10	40	l∕₂ dens.
L. Whistler Bowl/Grande	partial	G12	6	1,953	1,556	397	1,245	1,307	32%	75%	102	12.70	7.72	15	115	
Upper Whistler Bowl	partial	G13	6	2,171	1,944	227	670	707	34%	56%	114	7.67	4.69	15	70	
West Cirque	partial	G14	7	2,136	1,940	196	640	669	31%	105%	30	1.90	1.15	20	25	
Christmas Trees	partial	G15	7	1,925	1,675	250	520	577	48%	67%	258	13.43	8.63	10	85	√₂ dens.
Sneaky Pete	partial	G16	7	1,935	1,683	252	770	810	33%	65%	70	5.36	3.27	20	65	
Cockalorum/West Bowl	1/3 & partial	G17	7	1,969	1,686	283	690	746	41%	81%	116	7.99	1.67	20	35	
Bagel Bowl Right	1/3 & partial	G18	7	1,950	1,685	265	655	707	40%	94%	206	13.47	2.81	20	55	
Bagel Bowl Left	1/3 & partial	G19	5	1,905	1,702	203	555	591	37%	48%	47	2.59	0.53	30	15	
<u> </u>	1/3 & partial	G20	6	1,891	1,723	168	570	594	29%	63%	180	10.28	2.07	15	30	
Upper Peak to Creek	partial	G21	5	2,164	1,950	214	730	761	29%	51%	33	2.39	1.44	30	45	
Highway 86	partial	G22	5	1,683	1,445	238	1,720	1,736	14%	29%	11	1.90	1.11	30	35	
Total Lift E		25	(not in	cluding 1	non "E" t	rails)		14,054	(not in	ncluding	non "E'	' trails)	85.85		2,060	1,560



Train Nome No. No					Ele	vation	Total	Horz.	Slope	Perce	nt Slope	Avg.	Horz.	Slope	Skiers A	t Area	
Name Netry	Trail	,	Trail	Skill	Тор	Bottom	Vertical	Dist.	Dist.			Width	Area	Area			Lift at
Link F - Journald Expression Link E - Journal Expression Link Expression <t< th=""><th>Name</th><th></th><th>No.</th><th>Class</th><th>Meters</th><th>Meters</th><th>Meters</th><th>Meters</th><th>Meters</th><th>Avg.</th><th>Steep.</th><th>Meters</th><th>Ha.</th><th>Ha.</th><th>Density</th><th>Total</th><th>Area</th></t<>	Name		No.	Class	Meters	Meters	Meters	Meters	Meters	Avg.	Steep.	Meters	Ha.	Ha.	Density	Total	Area
Upper Minikey Jack 23 area F1 2 1.83 1.662 1.76 1.030 1.045 1.7% 29% 4.3% 39 4.03 2.73 50 135 Lower Minikey Jack 2.3 area F3 3 1.661 1.416 2.45 1.030 1.11 125 83 8.85 19 0.27 0.27 50 15 Lower Minikey Jack 2.3 area F6a 3 1.630 1.637 1.648 4.04 64 3.85 2.50 2.58 4.04 0 15 Lower Eigo Bowl (class 3) 1.3 area F6b 2 1.637 1.647 1.61 810 826 2.96 2.76 57 4.65 1.58 50 80 1.53 1.50 1.53 1.50 1.53 1.50 1.53 1.50 1.53 1.50 1.53 1.50 1.53 1.50 1.53 1.50 1.50 1.53 1.50 1.53 1.50 1.53 1.50	Lift F - Emerald Express																
Upper Egn Dankanted Forest P2 3 1.68 1.78 0.30 2.38 2.39 4.39 1.28 1.31 40 50 Upper Egn David 2.3 area F3 3 1.661 1.46 2.45 1.30 50 1.28 1.31 40 50 Upper Egn David 2.3 area F6a 3 1.635 1.635 1.63 1.61 1.63 1.55 50 2.50 2.58 4.00 1.05 Lower Ego Davi (class 3) 1.3 area F6b 3 1.637 1.476 1.61 810 826 2.96 2.76 57 4.65 1.58 40 65 Cougar Trail F8 4 1.712 1.644 68 240 296 276 27 4.55 1.58 40 65 Joly Green Gaant 2.3 area F10 3 1.838 1.605 2.33 1.031 1.85 1.030 311 30 37 3.8 236	Upper Whiskey Jack	2/3 area	F1	2	1,838	1,662	176	1,030	1,045	17%	29%	39	4.03	2.73	50	135	
Lower Miskey Jack 2/3 area F3 3 1.661 1.416 245 1.090 1.117 22% 32% 50 5.47 3.74 4.0 150 Fig Alley F4 2 1.649 1.638 1.11 145 1.45 % 5% 5% 50 5.47 3.74 4.0 105 Lower Ego Bowl (class 3) 1.3area F6 3 1.637 1.476 1.61 810 826 20% 27% 5.7 4.65 1.58 4.0 105 Lower Ego Bowl (class 2) 1.3area F6 2 1.637 1.476 1.61 810 826 20% 27% 5.7 4.65 1.58 4.0 4.05 Lower Ego Bowl (class 2) 1.3area F6 4 1.537 1.476 1.61 810 826 20% 27% 5.7 4.65 1.58 50 80 Cougar Trail F8 4 1.712 1.644 68 240 249 28% 41% 48 1.15 1.20 40 50 F7 4 1.594 1.712 1.644 68 240 249 28% 41% 48 1.15 1.20 40 50 F8 4 1.712 1.644 1.537 5.7 2.50 2.58 4.2 1.05 1.05 1.00 40 45 Lower Ego Bowl (class 2) 1.3area F0 2 1.646 1.597 70 2.50 2.60 2.8% 42% 1.05 1.05 1.00 40 45 Cougar Trail F1 5 1.646 1.597 49 180 187 27% 37% 43 0.7 0.80 0.30 25 Race Center F12 4 1.520 1.437 83 1.305 1.061 2.33 3.05 1.061 2.3% 3.5% 4.8 1.99 2.06 40 80 Lower J0H Geen Giant F13 3 1.537 1.426 1.11 4.15 430 27% 33% 48 1.99 2.06 40 80 Cougar J13 3 1.537 1.426 1.141 31 300 311 27% 32% 48 1.99 2.06 40 25 Lower J0H Geen Giant F13 3 1.577 1.426 1.11 4.15 3.00 31 27% 32% 48 1.43 1.48 40 60 Old Crow F22 3 1.450 1.449 13 30 311 27% 32% 48 1.99 2.06 40 25 Lower J0H Geen Giant F13 3 1.577 1.426 1.11 4.15 3.00 311 27% 32% 48 1.99 2.06 40 25 Lower J0H Geen Giant F13 3 1.577 1.426 1.11 4.15 3.00 311 27% 32% 48 1.99 2.06 40 25 Lower J0H Geen Giant F13 3 1.577 1.426 1.10 5 370 3.85 2.8% 3.5% 3.5% 4.8 1.94 4.0 60 Cougar J14 Low J1 (rot-Lot-Lot J2 F6 Los 2) 8.2 Lower J0H Geen Giant F13 3 1.577 1.426 1.10 2.2 Lower J0H Geen Giant F13 3 1.577 1.426 1.10 3.00 311 2.5% 5.5% 4.8 1.59 2.0 4.0 2.5 Lower J0H Geen Giant F1 (rot Lot-Lot J2 F6 Los 2) 8.2 Lower J0H Geen Giant F1 (rot Lot J2 F6 Los 2) 8.2 Lower J0H Geen Giant F1 (rot Lot J2 F6 Los 2) 8.2 Lower J0H Geen Giant F1 (rot Lot J2 F6 Los 2) 8.2 Lower J0H Geen Giant F1 (rot J2 F6 Los 2) 8.2 Lower J0H Geen Giant F1 (rot J2 F6 Los 2) 8.2 Lower J0H Geen Giant F1 (rot J2 F6 Los 2) 8.2 Lower J0H Geen Giant F1 (rot J	Upper Enchanted Forest		F2	3	1,661	1,586	75	330	338	23%	43%	39	1.28	1.31	40	50	
Pig Aley F4 2 1.649 1.638 11 145 8% 8% 10 0.27 2.02 2.50 1.5 Lower Exchande Forst F3 1.630 1.637 1.645 1.64 450 42.06 2.50 2.58 40 105 Lower Ego Bowl (class 2) 1.73 area F6a 3 1.637 1.476 161 810 826 20% 27% 57 4.65 1.58 40 63 Cougar Trail F7 4 1.594 1.535 59 230 230 28% 41% 48 1.15 1.00 40 45 Jolly Green Giant 2.3 area F10 3 1.838 1.605 231 1.051 1.01 2.7% 37% 4.45 1.09 0.00 03 2.5 Gouer Jolg Green Giant 2.3 area F10 3 1.537 1.426 111 415 300 27% 37% 43 1.77 2.5% 5% 5.1 2.2 40 60 60 77 1.31 <t< td=""><td>Lower Whiskey Jack</td><td>2/3 area</td><td>F3</td><td>3</td><td>1,661</td><td>1,416</td><td>245</td><td>1,090</td><td>1,117</td><td>22%</td><td>32%</td><td>50</td><td>5.47</td><td>3.74</td><td>40</td><td>150</td><td></td></t<>	Lower Whiskey Jack	2/3 area	F3	3	1,661	1,416	245	1,090	1,117	22%	32%	50	5.47	3.74	40	150	
Lower Richanted Forest F5 3 1,500 1,503 115 450 464 26% 35% 54 3.86 2.64 400 105 Lower Rigo Bowl (class 3) 1/3 area F6b 3 1,637 1,476 161 810 826 20% 27% 57 4.65 1.58 40 65 Lower Rigo Bowl (class 3) 1/3 area F6b 2 1,637 1,476 161 810 826 20% 27% 57 4.65 1.58 60 80 Cougar Trail F78 4 1,712 1,646 68 240 29% 37% 50 5.15 3.22 40 40 51 Colgar Trail F11 5 1,646 1,597 49 180 187 27% 3% 43 1.77 1.80 40 60 60 60 60 60 60 60 60 60 60 60 7 1.426	Pig Alley		F4	2	1,649	1,638	11	145	145	8%	8%	19	0.27	0.27	50	15	
Upper Figo Bowi 2/3 area Fia 3 1,805 1,476 161 810 826 20% 27% 57 4.65 1.58 40 65 Lower Figo Bowl (class 2) 1/3 area F6b 2 1,637 1,476 161 810 826 20% 27% 57 4.65 1.58 50 80 Cugar Trail F7 4 1,594 1,657 60 23% 23% 42% 42 1.05 1.09 40 45 Jolly Green Giant 2.73 area F10 3 1,837 1.635 1.93 1.037 1.43 1.80 2.7% 37% 43 0.77 0.80 30 2.5 Race Center F12 3 1.57 1.425 1.437 83 295 306 28% 1.43 1.48 40 60 0 Lower Sidewinder F22 3 1.570 1.465 1.03 3.00 311 27%	Lower Enchanted Forest		F5	3	1,620	1,505	115	450	464	26%	35%	56	2.50	2.58	40	105	
Lower Ego Bowl (class 2) 1.3 area Fob 3 1.637 1.476 161 810 826 20% 27% 57 4.65 1.58 40 65 Lower Ego Bowl (class 2) 1.3 area Fob 2 1.637 1.476 1.61 810 826 20% 27% 57 4.65 1.58 40 63 Cougar Trail F8 4 1.712 1.644 68 240 249 28% 42% 42 1.05 1.09 40 45 Jolly Green Giant 2.73 e71 5 1.646 1.597 49 180 187 27% 37% 43 0.77 0.80 20 20 1.08 1.09 1.08 1.09 1.08 1.09 1.08 1.09 1.08 1.08 1.09 2.06 40 80 1.08 1.09 1.08 1.09 1.08 1.08 1.09 1.08 1.08 1.08 1.09 1.08 <	Upper Ego Bowl	2/3 area	F6a	3	1,805	1,637	168	720	739	23%	35%	54	3.86	2.64	40	105	
	Lower Ego Bowl (class 3)	1/3 area	F6b	3	1,637	1,476	161	810	826	20%	27%	57	4.65	1.58	40	65	
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Lower Ego Bowl (class 2)	1/3 area	F6b	2	1,637	1,476	161	810	826	20%	27%	57	4.65	1.58	50	80	
			F7	4	1,594	1,535	59	230	237	26%	29%	37	0.86	0.89	40	35	
IndFig41,7451,675702502602502602502501,601,004045Jolly Green Giant2/3 areaF1031,8381,6052331,0351,06123%32%505.153.5240140F1151,6461,5774918081727%3%742.172.254090Lower Jolly Green GiantF1331,571,42611141543027%3%742.172.254090Lower Jolly Green GiantF1231,6201,4131.4840060504884.314.484060Old CrowF2231,7071,46510537038528%35%371.371.424055Lower SidewinderF2331,7571,3132032110%1.1%1.96.624025Total Lift FT701,742,0241102652874.535.435.435.432.0420The SaddleG152,0881,7751.811,7152.182.9680%10%8.332.132.172.0820The CouloirG372,1242.0051.822.002.8680%10%5.857.00.620.624.032.96SurpriseG2<	Cougar Trail		F8	4	1,712	1,644	68	240	249	28%	41%	48	1.15	1.20	40	50	
Jolly Green Giant 2/3 area F10 3 1,838 1,605 233 1,035 1,057 23% 23% 505 5.15 3.52 40 140 Race Center F12 4 1,520 1,437 83 255 306 28% 33% 74 41 1.71 2.64 00 Lower Jolly Green Giant F13 3 1,537 1,426 111 415 430 27% 38% 74 1.43 1.48 0.06 00 Lower Jolly Green Giant F12 3 1,624 1,537 1,465 105 370 385 28% 37 1.37 1.42 40 65 Lower Sidewinder F23 3 1,450 1,419 31 320 22% 38% 43 5.43 5.59 30 170 Mathews' Traverse G1 5 2,088 160 505 29% 10% 15% 7.42 100 26 27 420 1.62 1.62 1.71 1.130 2.43 2.41 1.			F9	4	1,745	1,675	70	250	260	28%	42%	42	1.05	1.09	40	45	
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Jolly Green Giant	2/3 area	F10	3	1,838	1,605	233	1,035	1,061	23%	32%	50	5.15	3.52	40	140	
Race Center F12 4 1,520 1,437 83 295 306 28% 33% 74 2.17 2.25 40 90 Lower Jolly Green Giant F13 3 1,537 1,426 111 415 430 27% 33% 48 1.43 40 60 Old Crow F22 3 1,624 1,543 81 300 311 27% 35% 48 1.43 40 65 Lower Sidewinder F23 3 1,450 1,419 31 320 321 10% 11% 19 0.62 0.62 40 25 Total Lift F 17 rot Haddels G1 5 2.08 1,775 1,31 2.9% 53% 43 5.43 5.59 30 10 44 55 The Couloir G3 7 2,143 2.004 110 265 287 42% 121% 33 0.87 0.44 20 20 10 Lift G-menes G1 2 1,413	-		F11	5	1,646	1,597	49	180	187	27%	37%	43	0.77	0.80	30	25	
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Race Center		F12	4	1,520	1,437	83	295	306	28%	33%	74	2.17	2.25	40	90	
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Lower Jolly Green Giant		F13	3	1,537	1,426	111	415	430	27%	35%	48	1.99	2.06	40	80	
Old Crow F22 3 1,570 1,465 105 370 385 28% 35% 37 1.37 1.42 40 55 Lower Sidewinder F23 3 1,450 1,419 31 320 321 10% 11% 19 0.62 0.62 40 25 Total Lift F 17 (not including Feb Class 2) 8,422 (not including Feb Class 2) 31.76 1.310 2,240 Lift G-The Peak T 7 (not including Feb Class 2) 8,422 (not including Feb Class 2) 31.76 31.3 25% 53% 43 5,43 5,59 30 170 Mathews' Traverse G2 3 2,174 2,088 86 909 90% 10% 15% 7 0.62 0.62 40 25 The Couloir G3 7 2,134 2,005 138 230 268 60% 16% 80 1.83 2.13 20 40 25 Last Chance G5 6 2,020 1,908 1,777 178 <t< td=""><td>•</td><td></td><td>F21</td><td>3</td><td>1,624</td><td>1,543</td><td>81</td><td>300</td><td>311</td><td>27%</td><td>32%</td><td>48</td><td>1.43</td><td>1.48</td><td>40</td><td>60</td><td></td></t<>	•		F21	3	1,624	1,543	81	300	311	27%	32%	48	1.43	1.48	40	60	
Lower SidewinderF2331,4501,4193132032110%11%190.620.624025Total Lift F17(not including F6b Class 2)8,422(not including F6b Class 2)31.761,3102,240Lift G- The PeakF52,0881,7753131,2751,31325%53%435.435.5930170Mathews' TraverseG232,1742,0888690590910%15%70.620.624025The CouloirG372,1432,02411026528742%121%330.870.942020The CrupeG472,1432,0051.8823026860%16%801.832.132045Last ChanceG562,0201,90811235036732%48%1103.844.031560SurpriseG672,0161,82019644548644%69%1446.427.0220140Shale SlopeG871,9051,77712832035555%51653%1.512065Shale SlopeG871,9051,77712832035%59%1469.274.18830 ½ dens.Left HookG971,9051,777128300 <td>Old Crow</td> <td></td> <td>F22</td> <td>3</td> <td>1,570</td> <td>1,465</td> <td>105</td> <td>370</td> <td>385</td> <td>28%</td> <td>35%</td> <td>37</td> <td>1.37</td> <td>1.42</td> <td>40</td> <td>55</td> <td></td>	Old Crow		F22	3	1,570	1,465	105	370	385	28%	35%	37	1.37	1.42	40	55	
Total Lift F17 (not including F6b Class 2) $8,422$ (not including F6b Class 2) 31.76 $1,310$ $2,240$ Lift G - The Peak The SaddleGI5 $2,088$ $1,775$ 313 $1,275$ $1,313$ 25% 53% 43 5.43 5.59 30 170 Mathews' TaverseG2 3 $2,174$ $2,088$ 86 905 909 10% 15% 7 0.62 0.62 40 25 The CouloirG3 7 $2,134$ $2,024$ 110 265 287 42% 121% 33 0.87 0.94 20 20 The CouloirG3 7 $2,143$ $2,005$ 138 230 268 60% 169% 80 1.83 2.13 20 45 Last ChanceG5 6 $2,020$ $1,908$ 112 350 367 32% 48% 110 3.84 4.03 15 60 SurpriseG6 7 $2,016$ $1,820$ 196 445 44% 69% 144 642 7.02 20 140 Doom & GloompartialGII 69 $1,777$ 128 320 345 40% 71% 55 1.77 1.91 20 40 Doom & GloompartialGII 7 $1,935$ $1,672$ 243 570 620 43% 65% 112 6.39 2.92 10 30 $1/3$ 40 Upper Whistler Bowl/G	Lower Sidewinder		F23	3	1.450	1.419	31	320	321	10%	11%	19	0.62	0.62	40	25	
Lift G - The PeakThe SaddleG152.0881,7753131,27553%435,435,5930170Mathews' TraverseG232,1742,0888690590910%15%70.620.624025The CouloirG372,1342,00513823026860%169%801.832.132045Last ChanceG562,0201,90811235036732%48%1103.844.031560SurpriseG672,0161,82019644548644%69%1446427.0220140G3771,9851,84713830533545%75%942.873.152065Shale SlopeG871,9531,77717846049339%75%1185.435.8220115Left HookG971,9531,69224357062043%65%1126.392.921030 ½ dens.Left HookG971,9351,69224357062043%65%1126.392.921030 ½ dens.Left HookG971,9351,692243 <td>Total Lift F</td> <td></td> <td>17</td> <td>(not in</td> <td>cluding</td> <td>F6b Class</td> <td>3 2)</td> <td></td> <td>8,422</td> <td>(not in</td> <td>ncluding</td> <td>F6b Cla</td> <td>ss 2)</td> <td>31.76</td> <td></td> <td>1.310</td> <td>2.240</td>	Total Lift F		17	(not in	cluding	F6b Class	3 2)		8,422	(not in	ncluding	F6b Cla	ss 2)	31.76		1.310	2.240
Lift G - The Peak The Saddle GI 5 2,088 1,75 313 1,275 1,313 25% 53% 43 5,43 5,59 30 170 Mathews' Traverse G2 3 2,174 2,088 86 905 909 10% 15% 7 0,62 0,62 40 25 The Couloir G3 7 2,134 2,024 110 65 287 42% 100 3.83 2.13 20 45 Last Chance G5 6 2,020 1,908 112 350 367 32% 48% 110 3.84 4.03 15 60 Surprise G6 7 2,016 1,820 196 445 486 44% 69% 144 642 7.02 20 140 Shale Slope G7 7 1,985 1,847 138 305 335 45% 75% 94 2.87 3.15 20 65 Shale Slope G7 1,935 1,777 128<					0		,		- /		0		,			y	, -
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Lift G - The Peak																
Mathews' Traverse G2 3 2,174 2,088 86 905 909 10% 15% 7 0.62 0.62 40 25 The Couloir G3 7 2,134 2,024 110 265 287 42% 121% 33 0.87 0.94 20 20 The Cirque G4 7 2,143 2,005 138 230 268 60% 169% 80 1.83 2.13 20 45 Last Chance G5 6 2,020 1,908 112 350 367 32% 48% 110 3.84 4.03 15 60 Surprise G6 7 2,016 1,820 196 445 486 44% 69% 144 642 7.02 20 140 Shale Slope G8 7 1,935 1,777 128 320 345 40% 71% 55 1.77 191 20 40 Doom & Gloom partial G11 7 1,935 1,672 243	The Saddle		Gl	5	2,088	1,775	313	1,275	1,313	25%	53%	43	5.43	5.59	30	170	
The Couloir G3 7 2,134 2,024 110 265 287 42% 121% 33 0.87 0.94 20 20 The Cirque G4 7 2,143 2,005 138 230 268 60% 169% 80 1.83 2.13 20 45 Last Chance G5 6 2,005 1,988 112 350 367 32% 48% 110 3.84 4.03 15 60 Surprise G6 7 2,016 1,820 196 445 486 44% 69% 144 6.42 7.02 20 140 Shale Slope G8 7 1,985 1,877 138 305 335 45% 75% 148 5.43 5.82 20 115 Left Hook G9 7 1,905 1,777 128 320 345 40% 71% 55 1.77 1.91 20 40 Doom & Gloom partial G10 6 1,924 1,678 246	Mathews' Traverse		G2	3	2,174	2,088	86	905	909	10%	15%	7	0.62	0.62	40	25	
The Cirque G4 7 2,143 2,005 138 230 268 60% 169% 80 1.83 2.13 20 45 Last Chance G5 6 2,020 1,908 112 350 367 32% 48% 110 3.84 4.03 15 60 Surprise G6 7 2,016 1,820 196 445 486 44% 69% 144 6.42 7.02 20 140 G7 7 1,953 1,775 178 460 493 39% 75% 118 5.43 5.82 20 115 Left Hook G9 7 1,905 1,777 128 320 345 40% 71% 55 1.77 1.91 20 40 Doom & Gloom partial G10 6 1,924 1,678 246 635 681 39% 59% 146 9.27 4.18 8 30 ½ dens. L Whistler Bowl/Grande F partial G12 6 1,953 1,556	The Couloir		G3	7	2,134	2,024	110	265	287	42%	121%	33	0.87	0.94	20	20	
Last Chance G5 6 2,020 1,908 112 350 367 32% 48% 110 3.84 4.03 15 60 Surprise G6 7 2,016 1,820 196 445 486 44% 69% 144 6.42 7.02 20 140 G7 7 1,985 1,847 138 305 335 45% 75% 94 2.87 3.15 20 65 Shale Slope G8 7 1,953 1,775 178 460 493 39% 75% 118 5.43 5.82 20 115 Left Hook G9 7 1,905 1,777 128 320 345 40% 71% 55 1.77 1.91 20 40 Doom & Gloom partial G10 6 1,924 1,678 246 635 681 39% 59% 146 9.27 4.18 8 30 ½ dens. partial G11 7 1,935 1,692 243 570 620 43% 65% 112 6.39 2.92 10 30 ½ dens. L Whistler Bowl/Grande F partial G12 6 1,953 1,556 397 1,245 1,307 32% 75% 102 12.70 5.61 15 85 Upper Whistler Bowl Partial G13 6 2,173 1,944 229 670 708 34% 56% 114 7.67 3.41 15 50 West Cirque partial G14 7 2,136 1,940 196 640 669 31% 105% 30 1.90 0.84 20 15 Christmas Trees partial G15 7 1,925 1,675 250 520 577 48% 67% 258 13.43 6.27 10 65 ½ dens. Sneaky Pete partial G16 7 1,935 1,683 283 690 746 41% 81% 116 7.99 1.21 20 25 Bagel Bowl Left 1/3 & partial G18 7 1,950 1,685 265 655 707 40% 94% 206 13.47 2.04 20 40 Bagel Bowl Left 1/3 & partial G19 5 1,905 1,702 203 555 591 37% 48% 47 2.59 0.39 30 10 1/3 & partial G20 6 1,891 1,723 168 570 594 29% 63% 180 10.28 1.50 15 25	The Cirque		G4	7	2,143	2,005	138	230	268	60%	169%	80	1.83	2.13	20	45	
Surprise 66 7 2,016 1,820 196 445 486 44% 69% 144 6.42 7.02 20 140 G7 7 1,985 1,847 138 305 335 45% 75% 94 2.87 3.15 20 65 Shale Slope G8 7 1,953 1,775 178 460 493 39% 75% 118 5.43 5.82 20 115 Left Hook G9 7 1,905 1,777 128 320 345 40% 71% 55 1.77 1.91 20 40 Doom & Gloom partial G10 6 1,924 1,678 246 635 681 39% 59% 146 9.27 4.18 8 30 ½ dens. Loom & Caloom partial G11 7 1,935 1,692 243 570 620 43% 65% 112 6.39 2.92 10 30 ½ dens. Lyper Whistler Bowl/Grande F partial G13 6	Last Chance		G5	6	2,020	1,908	112	350	367	32%	48%	110	3.84	4.03	15	60	
G7 7 1,985 1,847 138 305 335 45% 75% 94 2.87 3.15 20 65 Shale Slope G8 7 1,953 1,775 178 460 493 39% 75% 118 5.43 5.82 20 115 Left Hook G9 7 1,905 1,777 128 320 345 40% 71% 55 1.77 1.91 20 40 Doom & Gloom partial G10 6 1,924 1,678 246 635 681 39% 59% 146 9.27 4.18 8 30 ½ dens. partial G11 7 1,935 1,692 243 570 620 43% 65% 112 6.39 2.92 10 30 ½ dens. Lyper Whistler Bowl/Grande F partial G12 6 1,953 1,556 397 1,245 1,307 32% 75% 102 12.70 5.61 15 85 Upper Whistler Bowl partial G14 7	Surprise		G6	7	2.016	1.820	196	445	486	44%	69%	144	6.42	7.02	20	140	
Shale Slope G8 7 1,953 1,775 178 460 493 39% 75% 118 5.43 5.82 20 115 Left Hook G9 7 1,905 1,777 128 320 345 40% 71% 55 1.77 1.91 20 40 Doom & Gloom partial G10 6 1,924 1,678 246 635 681 39% 59% 146 9.27 4.18 8 30 ½ dens. partial G11 7 1,935 1,692 243 570 620 43% 65% 112 6.39 2.92 10 30 ½ dens. L. Whistler Bowl/Grande F partial G12 6 1,953 1,556 397 1,245 1,307 32% 75% 102 12.70 5.61 15 85 Upper Whistler Bowl partial G13 6 2,173 1,944 229 670 708 34% 56% 114 7.67 3.41 15 50 West Cirque	I I I		G7	7	1.985	1.847	138	305	335	45%	75%	94	2.87	3.15	20	65	
Left Hook G9 7 1,905 1,777 128 320 345 40% 71% 55 1.77 1.91 20 40 Doom & Gloom partial G10 6 1,924 1,678 246 635 681 39% 59% 146 9.27 4.18 8 30 ½ dens. partial G11 7 1,935 1,692 243 570 620 43% 65% 112 6.39 2.92 10 30 ½ dens. L. Whistler Bowl/Grande F partial G12 6 1,953 1,556 397 1,245 1,307 32% 75% 102 12.70 5.61 15 85 Upper Whistler Bowl/Grande F partial G13 6 2,173 1,944 229 670 708 34% 56% 114 7.67 3.41 15 50 West Cirque partial G15 7 1,925 1,675 250 520 577 48% 67% 258 13.43 6.27 10 65 ½ dens. <	Shale Slope		G8	7	1,953	1.775	178	460	493	39%	75%	118	5.43	5.82	20	115	
Doom & Gloom partial Gl0 6 1,924 1,678 246 635 681 39% 59% 146 9.27 4.18 8 30 ½ dens. partial Gl1 7 1,935 1,692 243 570 620 43% 65% 112 6.39 2.92 10 30 ½ dens. L. Whistler Bowl/Grande F partial Gl2 6 1,953 1,556 397 1,245 1,307 32% 75% 102 12.70 5.61 15 85 Upper Whistler Bowl partial Gl3 6 2,173 1,944 229 670 708 34% 56% 114 7.67 3.41 15 50 West Cirque partial Gl4 7 2,136 1,940 196 640 669 31% 105% 30 1.90 0.84 20 15 Christmas Trees partial Gl5 7 1,925 1,675 250 520 577 48% 67% 258 13.43 6.27 10 65 ½ dens	Left Hook		G9	7	1,905	1.777	128	320	345	40%	71%	55	1.77	1.91	20	40	
partial Gl1 7 1,935 1,602 243 570 620 43% 65% 112 6.39 2.92 10 30 ½ dens. L. Whistler Bowl/Grande F partial Gl2 6 1,953 1,556 397 1,245 1,307 32% 75% 102 12.70 5.61 15 85 Upper Whistler Bowl partial Gl3 6 2,173 1,944 229 670 708 34% 56% 114 7.67 3.41 15 50 West Cirque partial Gl4 7 2,136 1,940 196 640 669 31% 105% 30 1.90 0.84 20 15 Christmas Trees partial Gl5 7 1,925 1,675 250 520 577 48% 67% 258 13.43 6.27 10 65 ½ dens. Sneaky Pete partial Gl6 7 1,935 1,683 252 770 810 33% 65% 70 5.36 2.37 20 45	Doom & Gloom	partial	G10	6	1.924	1.678	246	635	681	39%	59%	146	9.27	4.18	8	30	1/2 dens
L. Whistler Bowl/Grande F partial G12 6 1,953 1,556 397 1,245 1,307 32% 75% 102 12.70 5.61 15 85 Upper Whistler Bowl partial G13 6 2,173 1,944 229 670 708 34% 56% 114 7.67 3.41 15 50 West Cirque partial G14 7 2,136 1,940 196 640 669 31% 105% 30 1.90 0.84 20 15 Christmas Trees partial G15 7 1,925 1,675 250 520 577 48% 67% 258 13.43 6.27 10 65 ½ dens. Sneaky Pete partial G16 7 1,935 1,683 252 770 810 33% 65% 70 5.36 2.37 20 45 Cockalorum/West Bowl 1/3 & partial G17 7 1,969 1,686 283 690 746 41% 81% 116 7.99 1.21 20 25 Bagel Bowl Right 1/3 & partial G18 7 1,950 1,685 265 655 707 40% 94% 206 13.47 2.04 20 40 Bagel Bowl Left 1/3 & partial G19 5 1,905 1,702 203 555 591 37% 48% 47 2.59 0.39 30 10 1/3 & partial G20 6 1,891 1,723 168 570 594 29% 63% 180 10.28 1.50 15 25		partial	G11	7	1,935	1,692	243	570	620	43%	65%	112	6 39	2.92	10	30	1/2 dens
La winkling of a labor of	L. Whistler Bowl/Grande F	partial	G12	6	1,953	1,556	397	1.245	1.307	32%	75%	102	12.70	5.61	15	85	
West Cirque partial Gl4 7 2,136 1,940 196 640 669 31% 105% 30 1.90 0.84 20 15 Christmas Trees partial Gl5 7 1,925 1,675 250 520 577 48% 67% 258 13.43 6.27 10 65 ½ dens. Sneaky Pete partial Gl6 7 1,935 1,683 252 770 810 33% 65% 70 5.36 2.37 20 45 Cockalorum/West Bowl 1/3 & partial Gl7 7 1,969 1,686 283 690 746 41% 81% 116 7.99 1.21 20 25 Bagel Bowl Right 1/3 & partial Gl8 7 1,950 1,685 265 655 707 40% 94% 206 13.47 2.04 20 40 Bagel Bowl Right 1/3 & partial Gl9 5 1,905 1,702 203 555 591 37% 48% 47 2.59 0.39 <th< td=""><td>Upper Whistler Bowl</td><td>partial</td><td>G13</td><td>6</td><td>2,173</td><td>1,944</td><td>229</td><td>670</td><td>708</td><td>34%</td><td>56%</td><td>114</td><td>7.67</td><td>3.41</td><td>15</td><td>50</td><td></td></th<>	Upper Whistler Bowl	partial	G13	6	2,173	1,944	229	670	708	34%	56%	114	7.67	3.41	15	50	
Christmas Trees partial G15 7 1,925 1,675 250 577 48% 67% 258 13.43 6.27 10 65 ½ dens. Sneaky Pete partial G16 7 1,935 1,683 252 770 810 33% 65% 70 5.36 2.37 20 45 Cockalorum/West Bowl 1/3 & partial G17 7 1,969 1,685 265 655 707 40% 94% 206 13.43 6.27 10 65 ½ dens. Bagel Bowl Right 1/3 & partial G17 7 1,969 1,686 283 690 746 41% 81% 116 7.99 1.21 20 25 Bagel Bowl Right 1/3 & partial G18 7 1,950 1,685 265 655 707 40% 94% 206 13.47 2.04 20 40 Bagel Bowl Left 1/3 & partial G19 5 1,905 1,702 203 555 591 37% 48% 47 2.59	West Circue	partial	G14	7	2,136	1,940	196	640	669	31%	105%	30	1.90	0.84	20	15	
Sineaky Pete partial Gl6 7 1,935 1,683 252 770 810 33% 65% 70 5.36 2.37 20 45 Cockalorum/West Bowl 1/3 & partial Gl7 7 1,969 1,686 283 690 746 41% 81% 116 7.99 1.21 20 25 Bagel Bowl Right 1/3 & partial Gl9 5 1,905 1,702 203 555 591 37% 48% 47 2.59 0.39 30 10 Magel Bowl Left 1/3 & partial Gl9 5 1,905 1,702 203 555 591 37% 48% 47 2.59 0.39 30 10 1/3 & partial G20 6 1,891 1,723 168 570 594 29% 63% 180 10.28 1.50 15 25	Christmas Trees	partial	G15	, 7	1 925	1,510	250	520	577	48%	67%	258	13.43	6.27	10	65	1/2 dens
Sincerky Feed Feed </td <td>Sneaky Pete</td> <td>partial</td> <td>G16</td> <td>, 7</td> <td>1,925</td> <td>1,673</td> <td>250</td> <td>770</td> <td>810</td> <td>33%</td> <td>65%</td> <td>70</td> <td>5 36</td> <td>2 37</td> <td>20</td> <td>45</td> <td>/2 dens.</td>	Sneaky Pete	partial	G16	, 7	1,925	1,673	250	770	810	33%	65%	70	5 36	2 37	20	45	/2 dens.
Bagel Bowl Left 1/3 & partial G19 5 1,905 1,605 265 655 707 40% 94% 206 13.47 2.04 20 40 Bagel Bowl Left 1/3 & partial G19 5 1,905 1,702 203 555 591 37% 48% 47 2.59 0.39 30 10 1/3 & partial G20 6 1,891 1,723 168 570 594 29% 63% 180 10.28 1.50 15 25	Cockalorum/West Bowl	1/3 & partial	G17	, 7	1,955	1,005	283	690	746	41%	81%	116	7 99	1.21	20	25	
Bagel Bowl Left 1/3 & partial G19 5 1,905 1,702 203 555 591 37% 48% 47 2.59 0.39 30 10 1/3 & partial G20 6 1,891 1,723 168 570 594 29% 63% 180 10.28 1.50 15 25	Bagel Bowl Right	1/3 & partial	G18	, 7	1,950	1,000	265	655	707	40%	94%	206	13.47	2.04	20	40	
Bager Bowright In Steepartial G19 S 1,702 205 555 571 577 46% 47 2.55 50 10 1/3 & partial G20 6 1,891 1,723 168 570 594 29% 63% 180 10.28 1.50 15 25	Bagel Bowl Left	1/3 & partial	G10	5	1,905	1,005	203	555	591	37%	/8%	200 47	2 59	0.39	20 30	10	
1/5 c partial 020 0 $1,071$ $1,725$ 100 $5/0$ $5/0$ $05/0$ 100 10.25 1.50 15 25	Dagerbowillen	1/3 & partial	G20	5	1,905	1,702	168	570	59/	20%	63%	180	10.28	1.50	15	25	
Upper Deak to Creek partial C21 5 2 164 1 950 214 730 761 20% 51% 33 2 30 1 05 30 30	Upper Peak to Creek	no contral	G20	5	2 164	1,725	214	730	761	20%	51%	33	2 30	1.50	30	20 30	
Upper reaction partial 0.21 3 $2,104$ $1,250$ 214 750 701 2770 5170 52 2.57 1.05 50	Highway 86	partial	Gn	5 5	2,104	1,950	214	1 720	1 736	2970 1/10/	200/	11	1 00	1.05	30	50 25	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	ingliway ou	partial	G22	5	2,005	1,445	230 115	240	250	1+70 3/10/	∠970 150/	70	1.90 0.27	2.50	15	23 40	
Chainer Dowl C24 6 2.055 1.016 120 405 429 246 426 142 574 6.07 15 40	Classicer Dowl		G23	0	2,000	1,943	113	540 405	120	24% 240/	43%	142	2.31 5.74	2.30	15	40	
Oracle Down 0.24 $0.2,003$ $1,710$ 137 403 420 3470 142 3.14 0.07 15 90 Total Lift C 24 24 1207 7220 1205 770	Total Lift G		24	0	2,033	1,910	139	403	420	34%	43%	142	5.74	0.07	13	1 295	770



Trail Trail Skill Top Botton Vertical Dist. Dist. With Area Area Lift at the analysis Name No. Clas Meters					Ele	vation	Total	Horz.	Slope	Perce	nt Slope	Avg.	Horz.	Slope	Skiers A	t Area	
Name No. Class Meters	Trail		Trail	Skill	Тор	Bottom	Vertical	Dist.	Dist.			Width	Area	Area			Lift at
Lift H - Garbanzo Express Raven H1 5 1,674 1,545 129 455 473 28% 50% 52 2.36 2.45 30 75 Lower Raven H2 6 1,555 1,485 80 270 282 30% 60% 61 1.64 1.71 15 25 Ptarmigan 2/3 area H3 5 1,497 1,455 42 290 293 14% 23% 40 1.15 0.77 30 25 Ptarmigan 2/3 area H4 5 1,520 1,095 425 1,500 1,552 23% 48% 50 7.45 5.16 30 155 7.5 Seppo's H6 5 1,195 1,138 57 210 218 27% 38% 40 0.84 0.87 30 25 CNC Training Center 1/2 area H8 3 1,666 1,545 115 380 397 30% 32% 91 3.44 1.88 1.66 40 6	Name		No.	Class	Meters	Meters	Meters	Meters	Meters	Avg.	Steep.	Meters	Ha.	Ha.	Density	Total	Area
RavenH151,6741,54512945547328%50%522.362.453075Lower RavenH261,5651,4858027028230%60%611.641.711525Ptarmigan Left2/3 areaH351,4971,4554229029314%23%401.150.773025Ptarmigan2/3 areaH451,5201,0954251,5001,55928%48%507.455.1630155Seppo'sH561,6741,3013731,1651,22332%64%424855.091575H651,1951,1385721021827%38%400.840.873025CNC Training Center1/2 areaH831,6601,54511538039730%32%913.441.804070Orange Peel/ Dave Muray1/3 areaH941,6741,4332411,1401,16521%39%434.881.664065Bear Paw2/3 areaH1041,4291,0683611,1501,20531%43%455.183.6240145Orkum2/3 areaH1151,3501,07927175079736%67%251.851.9	Lift H - Garbanzo Express																
Lower RavenH261,5651,4858027028230%60%611.641.711525Ptarmigan Left2/3 areaH351,4971,4554229029314%23%401.150.773025Ptarmigan2/3 areaH451,5201,0954251,5001,55928%48%507.455.16301555Seppo'sH561.6741,3013731,1651,22332%64%424.855.091575H651,1951,1385721021827%38%400.840.873025CNC Training Center1/2 areaH831,6601,54511538030730%32%913.441.804070Orange Peel/ Dave Murray1/3 areaH941,6741,4332411,1601,16521%39%434.881.664065Bear Paw2/3 areaH1041,2921,0683611,1501,20531%43%455.183.6240145Tokum2/3 areaH1151,3501,09026073077536%46%634.573.233095In DeepH1261,2951,17811734036034%51%291	Raven		H1	5	1,674	1,545	129	455	473	28%	50%	52	2.36	2.45	30	75	
Ptarmigan Left 2/3 area H3 5 1,497 1,455 42 290 293 14% 23% 40 1.15 0.77 30 25 Ptarmigan 2/3 area H4 5 1,520 1,095 425 1,500 1,559 28% 48% 50 7.45 5.16 30 155 Seppo's H5 6 1,674 1,301 373 1,165 1,223 32% 64% 42 4.85 5.09 15 75 H6 5 1,195 1,138 57 210 218 27% 38% 40 0.84 0.87 30 25 CNC Training Center 1/2 area H8 3 1,660 1,545 115 380 397 30% 32% 91 3.44 1.80 40 70 Orange Peel/ Dave Murray 1/3 area H9 4 1,674 1,433 241 1,140 1,165 21% 39% 43 4.88 1.66 40 65 Dawe 2/3 area H	Lower Raven		H2	6	1,565	1,485	80	270	282	30%	60%	61	1.64	1.71	15	25	
Ptarmigan 2/3 area H4 5 1,520 1,095 425 1,500 1,559 28% 48% 50 7.45 5.16 30 155 Seppo's H5 6 1,674 1,301 373 1,165 1,223 32% 64% 42 4.85 5.09 15 75 H6 5 1,195 1,138 57 210 218 27% 38% 40 0.84 0.87 30 25 CNC Training Center 1/2 area H8 3 1,660 1,545 115 380 397 30% 32% 91 3.44 1.80 40 70 Orange Peel/ Dave Muray 1/3 area H9 4 1,674 1,433 241 1,140 1,165 21% 39% 43 4.88 1.66 40 65 Bear Paw 2/3 area H10 4 1,429 1,068 361 1,150 1,205 31% 43% 45 5.18 3.62 40 145 In Deep H12 6 </td <td>Ptarmigan Left</td> <td>2/3 area</td> <td>H3</td> <td>5</td> <td>1,497</td> <td>1,455</td> <td>42</td> <td>290</td> <td>293</td> <td>14%</td> <td>23%</td> <td>40</td> <td>1.15</td> <td>0.77</td> <td>30</td> <td>25</td> <td></td>	Ptarmigan Left	2/3 area	H3	5	1,497	1,455	42	290	293	14%	23%	40	1.15	0.77	30	25	
Seppo's H5 6 1,674 1,301 373 1,165 1,223 32% 64% 42 4.85 5.09 15 75 H6 5 1,195 1,138 57 210 218 27% 38% 40 0.84 0.87 30 25 H7 2 1,674 1,656 18 200 201 9% 9% 46 0.91 0.91 50 45 CNC Training Center 1/2 area H8 3 1,660 1,545 115 380 397 30% 32% 91 3.44 1.80 40 70 Orange Peel/ Dave Murray 1/3 area H9 4 1,674 1,433 241 1,140 1,165 21% 39% 43 4.88 1.66 40 65 Bear Paw 2/3 area H10 4 1,429 1,068 361 1,150 1,205 31% 43% 45 5.18 3.62 40 145 Tokum 2/3 area H11 5 1,350 <td< td=""><td>Ptarmigan</td><td>2/3 area</td><td>H4</td><td>5</td><td>1,520</td><td>1,095</td><td>425</td><td>1,500</td><td>1,559</td><td>28%</td><td>48%</td><td>50</td><td>7.45</td><td>5.16</td><td>30</td><td>155</td><td></td></td<>	Ptarmigan	2/3 area	H4	5	1,520	1,095	425	1,500	1,559	28%	48%	50	7.45	5.16	30	155	
H651,1951,1385721021827%38%400.840.873025H721,6741,656182002019%9%460.910.915045CNC Training Center1/2 areaH831,6601,54511538039730%32%913.441.804070Orange Peel/ Dave Murray1/3 areaH941,6741,4332411,16521%39%434.881.664065Bear Paw2/3 areaH1041,4291,0683611,1501,20531%43%455.183.6240145Tokum2/3 areaH1151,3501,09026073077536%46%634.573.233095In DeepH1261,2951,17811734036034%51%291.001.0645 1/4 denUnsanctionedH1361,3501,07927175079736%57%251.851.9741 1/4 denClub 21H1641,0731,0195430030518%24%1093.273.3240135Upper Olympic1/3 areaB131,4281,0443841,5801,62624%32%599.253.1740125<	Seppo's		H5	6	1,674	1,301	373	1,165	1,223	32%	64%	42	4.85	5.09	15	75	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $			H6	5	1,195	1,138	57	210	218	27%	38%	40	0.84	0.87	30	25	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $			H7	2	1,674	1,656	18	200	201	9%	9%	46	0.91	0.91	50	45	
Orange Peel/ Dave Murray 1/3 area H9 4 1,674 1,433 241 1,140 1,165 21% 39% 43 4.88 1.66 40 65 Bear Paw 2/3 area H10 4 1,429 1,068 361 1,150 1,205 31% 43% 45 5.18 3.62 40 145 Tokum 2/3 area H11 5 1,350 1,090 260 730 775 36% 46% 63 4.57 3.23 30 95 In Deep H12 6 1,295 1,178 117 340 360 34% 51% 29 1.00 1.06 4 5 1/4 den Uns anctioned H13 6 1,350 1,079 271 750 797 36% 57% 25 1.85 1.97 4 7 1/4 den Side Order H14 6 1,552 1,452 100 300 316 33% 46% 12 0.35 0.37 4 1/4 den Club 21 H16 <t< td=""><td>CNC Training Center</td><td>1/2 area</td><td>H8</td><td>3</td><td>1,660</td><td>1,545</td><td>115</td><td>380</td><td>397</td><td>30%</td><td>32%</td><td>91</td><td>3.44</td><td>1.80</td><td>40</td><td>70</td><td></td></t<>	CNC Training Center	1/2 area	H8	3	1,660	1,545	115	380	397	30%	32%	91	3.44	1.80	40	70	
Bear Paw 2/3 area H10 4 1,429 1,068 361 1,150 1,205 31% 43% 45 5.18 3.62 40 145 Tokum 2/3 area H11 5 1,350 1,090 260 730 775 36% 46% 63 4.57 3.23 30 95 In Deep H12 6 1,295 1,178 117 340 360 34% 51% 29 1.00 1.06 4 5 1/4 den Uns anctioned H13 6 1,350 1,079 271 750 797 36% 57% 25 1.85 1.97 4 7 1/4 den Side Order H14 6 1,552 1,452 100 300 316 33% 46% 12 0.35 0.37 4 1 1/4 den Club 21 H15 6 1,445 1,368 77 200 214 39% 44% 24 0.47 0.50 4 2 1/4 den H16 4 1,073 1,019 <td< td=""><td>Orange Peel/ Dave Murray</td><td>1/3 area</td><td>H9</td><td>4</td><td>1,674</td><td>1,433</td><td>241</td><td>1,140</td><td>1,165</td><td>21%</td><td>39%</td><td>43</td><td>4.88</td><td>1.66</td><td>40</td><td>65</td><td></td></td<>	Orange Peel/ Dave Murray	1/3 area	H9	4	1,674	1,433	241	1,140	1,165	21%	39%	43	4.88	1.66	40	65	
Tokum 2/3 area H11 5 1,350 1,090 260 730 775 36% 46% 63 4.57 3.23 30 95 In Deep H12 6 1,295 1,178 117 340 360 34% 51% 29 1.00 1.06 4 5 1/4 den Uns anctioned H13 6 1,350 1,079 271 750 797 36% 57% 25 1.85 1.97 4 7 1/4 den Side Order H14 6 1,552 1,452 100 300 316 33% 46% 12 0.35 0.37 4 1 1/4 den Club 21 H15 6 1,445 1,368 77 200 214 39% 44% 24 0.47 0.50 4 2 1/4 den H16 4 1,073 1,019 54 300 305 18% 24% 109 3.27 3.32 40 135 Upper Olympic 1/3 area B1 3 1,428 1,044 <td< td=""><td>Bear Paw</td><td>2/3 area</td><td>H10</td><td>4</td><td>1,429</td><td>1,068</td><td>361</td><td>1,150</td><td>1,205</td><td>31%</td><td>43%</td><td>45</td><td>5.18</td><td>3.62</td><td>40</td><td>145</td><td></td></td<>	Bear Paw	2/3 area	H10	4	1,429	1,068	361	1,150	1,205	31%	43%	45	5.18	3.62	40	145	
In Deep H12 6 1,295 1,178 117 340 360 34% 51% 29 1.00 1.06 4 5 1/4 den Unsanctioned H13 6 1,350 1,079 271 750 797 36% 57% 25 1.85 1.97 4 7 1/4 den Side Order H14 6 1,552 1,452 100 300 316 33% 46% 12 0.35 0.37 4 1 1/4 den Club 21 H15 6 1,445 1,368 77 200 214 39% 44% 24 0.47 0.50 4 2 1/4 den H16 4 1,073 1,019 54 300 305 18% 24% 109 3.27 3.32 40 135 H17 5 1,320 1,150 170 430 462 40% 49% 46 1.97 2.12 30 65 Upper Olympic 1/3 area B1 3 1,428 1,044 384 1,580 1,626	Tokum	2/3 area	H11	5	1,350	1,090	260	730	775	36%	46%	63	4.57	3.23	30	95	
Unsanctioned H13 6 1,350 1,079 271 750 797 36% 57% 25 1.85 1.97 4 7 1/4 den Side Order H14 6 1,552 1,452 100 300 316 33% 46% 12 0.35 0.37 4 1 1/4 den Club 21 H15 6 1,445 1,368 77 200 214 39% 44% 24 0.47 0.50 4 2 1/4 den H16 4 1,073 1,019 54 300 305 18% 24% 109 3.27 3.32 40 135 H17 5 1,320 1,150 170 430 462 40% 49% 46 1.97 2.12 30 65 Upper Olympic 1/3 area B1 3 1,428 1,044 384 1,580 1,626 24% 32% 59 9.25 3.17 40 125 Total Lift H 17 (not incluting B1) 10,246 (not incluting B1) 39.79	In Deep		H12	6	1,295	1,178	117	340	360	34%	51%	29	1.00	1.06	4	5	1/4 dens
Side Order H14 6 1,552 1,452 100 300 316 33% 46% 12 0.35 0.37 4 1 1/4 den Club 21 H15 6 1,445 1,368 77 200 214 39% 44% 24 0.47 0.50 4 2 1/4 den H16 4 1,073 1,019 54 300 305 18% 24% 109 3.27 3.32 40 135 H17 5 1,320 1,150 170 430 462 40% 49% 46 1.97 2.12 30 65 Upper Olympic 1/3 area B1 3 1,428 1,044 384 1,580 1,626 24% 32% 59 9.25 3.17 40 125 Total Lift H 17 (not incluting B1) 10,246 (not incluting B1) 39.79 1,140 2,350	Unsanctioned		H13	6	1,350	1,079	271	750	797	36%	57%	25	1.85	1.97	4	7	1/4 dens
Chub 21 H15 6 1,445 1,368 77 200 214 39% 44% 24 0.47 0.50 4 2 1/4 den H16 4 1,073 1,019 54 300 305 18% 24% 109 3.27 3.32 40 135 H17 5 1,320 1,150 170 430 462 40% 49% 46 1.97 2.12 30 65 Upper Olympic 1/3 area B1 3 1,428 1,044 384 1,580 1,626 24% 32% 59 9.25 3.17 40 125 Total Lift H 17 (not including B1) 10,246 (not including B1) 39.79 1,140 2,350	Side Order		H14	6	1,552	1,452	100	300	316	33%	46%	12	0.35	0.37	4	1	1/4 dens
H16 4 1,073 1,019 54 300 305 18% 24% 109 3.27 3.32 40 135 Upper Olympic 1/3 area B1 3 1,428 1,044 384 1,580 1,626 24% 32% 59 9.25 3.17 40 125 Total Lift H 17 (not including B1) 10,246 (not including B1) 39.79 1,140 2,350	Club 21		H15	6	1,445	1,368	77	200	214	39%	44%	24	0.47	0.50	4	2	1/4 dens
H17 5 1,320 1,150 170 430 462 40% 49% 46 1.97 2.12 30 65 Upper Olympic 1/3 area B1 3 1,428 1,044 384 1,580 1,626 24% 32% 59 9.25 3.17 40 125 Total Lift H 17 (not including B1) 10,246 (not including B1) 39.79 1,140 2,350			H16	4	1,073	1,019	54	300	305	18%	24%	109	3.27	3.32	40	135	
Upper Olympic 1/3 area B1 3 1,428 1,044 384 1,580 1,626 24% 32% 59 9.25 3.17 40 125 Total Lift H 17 (not including B1) 10,246 (not including B1) 39.79 1,140 2,350			H17	5	1,320	1,150	170	430	462	40%	49%	46	1.97	2.12	30	65	
Total Lift H 17 (not including B1) 10,246 (not including B1) 39.79 1,140 2,350	Upper Olympic	1/3 area	B1	3	1,428	1,044	384	1,580	1,626	24%	32%	59	9.25	3.17	40	125	
	Total Lift H		17	(not in	cluding 1	B1)			10,246	(not i	ncluding	; B1)		39.79		1,140	2,350
Lift I - Olympic Chair	Lift I - Olympic Chair																
I1 2 1,138 1,026 112 760 768 15% 17% 46 3.49 3.53 50 175			I1	2	1,138	1,026	112	760	768	15%	17%	46	3.49	3.53	50	175	
<u>I2</u> 2 1,138 1,035 103 680 688 15% 20% 41 2.81 2.84 50 140			I2	2	1,138	1,035	103	680	688	15%	20%	41	2.81	2.84	50	140	
Total Lift I 2 1,456 6.37 315 630	Total Lift I		2						1,456					6.37		315	630
Lift K - Franz's Chair	Lift K - Franz's Chair																
Porcupine $1/3 \operatorname{area} = F7 = 3 = 1.675 = 1.615 = 60 = 355 = 360 = 17\% = 31\% = 68 = 2.40 = 0.81 = 40 = 30$	Porcupine	1/3 area	F7	3	1 675	1 615	60	355	360	17%	31%	68	2 40	0.81	40	30	
For the probability of the prob	Fisheve	1/3 area	E7 E8	3	1,075	1,015	131	590	500 604	22%	37%	38	2.40	0.01	40	30	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Little Red Run	1/3 area	E0 F9	3	1,716	1,502	90	340	354	29%	39%	34	1 17	0.70	40	15	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Upper Franz's Creek	1/3 area	F10	3	1,710	1,017	134	500	518	27%	33%	55	2.76	0.41	40	40	
Old Man 1/3 area F11 3 1740 1580 160 680 699 24% 36% 34 2 33 0.80 40 30	Old Man	1/3 area	F11	3	1,730	1,501	160	680	699	21%	36%	34	2.70	0.95	40	30	
Emprox Meadow 1/3 area E11 6 1710 1580 130 495 512 26% 52% 69 342 118 15 20	Franz's Meadow	1/3 area	E11	6	1,740	1,500	130	/95	512	24%	52%	69	3.42	1.18	15	20	
II 3 1905 1782 213 840 867 25% 41% 60 544 520 40 210	Tianz's Weadow	175 4104	I12	3	1,710	1,500	213	840	867	25%	/11%	60	5.04	5 20	40	210	
11 5 1,752 1,762 215 540 607 256 4176 66 3.46 5.27 40 145			12	3	1,995	1,782	118	510	523	23%	32%	68	3.04	3.20	40	145	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Ridge Run		13	5	1,963	1,702	121	665	525 676	18%	50%	18	1 22	1.24	15	20	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Ruge Run		J.J 14	6	1,000	1,042	121	175	106	50%	58%	138	2.41	2.70	15	40	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$			J4 15	7	1,920	1,040	00 77	260	271	30%	00%	58	1.51	2.70	20	30	
15 / 1,200 1900 1200 2/1 507 507 50 1.51 1.57 20 50 16 6 1.990 1900 190 650 674 79% 56% 131 853 8.95 15 135			J.J I6	6	1,950	1,879	180	200 650	674	28%	56%	131	8.53	9.85	20 15	135	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$			J0 10م	0	1,900	1,000	160	490	506	∠0% 330/	50% 60%	1.31	0.JJ 7.00	0.03 7 / T	13	20	1/1 dans
$D=0 0 2,013 1,033 100 400 300 3370 0070 140 7.09 7.47 4 50 1/4 \ dell$	Deak Chair Little Ded Travers	9	D40	2	2,013	1,033	24	400	201	23% 80/	Q0/	140	0.09	0.27	4	10	1/4 uells
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Deak Chair Franz's Meadow 7	raverse		2	1,700	1,730	24 19	290 520	291 522	070 004	0% 00/	9 14	0.27	0.27	40	20	
Total Lift K 9 (not including partial trails) 4527 (not including partial trails) 4527 (not including partial trails) 2652 915 1600	Total Lift K	1010180	0	(not in	chuding	1,121	40 ile)	520	1 527	970	970 ncluding	14 nartial t	taile)	36.52	40	<u> </u>	1 600



				Ele	vation	Total	Horz.	Slope	Perce	nt Slope	Avg.	Horz.	Slope	Skiers A	t Area	
Trail	,	Trail	Skill	Тор	Bottom	Vertical	Dist.	Dist.			Width	Area	Area			Lift at
Name		No.	Class	Meters	Meters	Meters	Meters	Meters	Avg.	Steep.	Meters	Ha.	Ha.	Density	Total	Area
Lift L - Orange Gondola	1/2			1 250	1 1 0 0		505		1.407	100/	0	0.55	0.00	10	10	
Crossroads	1/3 area	Cl	4	1,270	1,188	82	595	601	14%	18%	9	0.55	0.28	40	10	
Fallaway	1/3 area	C2	6	1,225	1,165	60	160	1/1	38%	55%	81	1.30	0.70	15	10	
Dave Murray Downhill	1/3 area	C3	5	1,225	655	5/0	2,375	2,442	24%	46%	46	10.91	5.61	30	1/0	
	1/3 area	C4	4	1,030	995	35	100 540	106	35%	40%	40	0.40	0.21	40	10	
Mid 0 Lanua Encoda	1/3 area $2/2$ area	07	4	1,000	800	144	2 250	2245	27%	38%	55	2.85	1.48	40	00	
Mid & Lower Franzs	2/5 area	U/	4	1,434	1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5	115	2,250	2,345	29%	40%	50	2.44	1.82	40	315	
Oren an Daal/ David Murray	1/2 area	Пð	3	1,000	1,343	241	1 1 40	1 1 65	210/	32% 200/	91 42	5.44 4 99	1.60	40	10	
Dave Multay	1/5 area	П9 E12	4	1,074	1,455	241	1,140	1,105	21%	39% 200/	45	4.88	1.00	40	0.5	
Papoose Papopa Paal	1/3 area	E13	2	1,002	1,590	74	4/0	4/5	2004	20%	22	1.22	0.41	40	15	
Lower Dopy Troil	1/3 area	E14 E19	2	1,055	1,301	214	1 1 4 5	1 165	20%	21%	22	2.50	0.41	30 40	20	
Lower Folly Trail	1/3 area	E10	5	1,510	1,290	214 157	1,145	1,105	19% 510/	50% 60%	23 56	2.39	0.00	40 20	55 15	
Upper insanity	1/3 area	E19 E20	6	1,409	1,312	137	303 400	545 522	31%	69% 52%	30	1.70	0.64	20	15	
Wild Cord	1/3 area	E20	6	1,576	1,397	101	490	771	37% 170/	500/	27	1.01	0.04	15	10	
Wild Calu	1/3 area	E21 E22	5	1,505	1,450	127	700	771	17% 27%	J0%	23	1.75	0.59	30	20	
Cost's Cully	1/3 area	E22	5	1,390	1,392	190	/43	//1	21%0 410/	43%	23 45	2.02	0.39	20	20	
Waasal	1/3 alea	E23	6	1,490	1,505	165	450	407	41%	70%	43	2.05	0.75	20	10	
Weaser Mid Dovo Murrov	1/2 or 00	E24	0	1,550	1,201	127	570	5/0	19%	51% 45%	18	0.00	0.07	15	10	
Total Lift I	1/3 alea	E23	4 (not in	1,455	1,290		040	276	21%	43%	5/	2.39	25.02	40	205	1 220
		1	(1101 111			liis)		370	(not n	liciuuliig	partiart	Talls)	23.92		895	1,520
Lift M																
	1/2 area	D5	7	1 036	1 725	211	570	608	3704	103%	128	731	3 00	10	40.1	6 dans
Harvey's Harrow	1/2 area	D5 D6	7	1,930	1,725	200	350	403	57%	06%	128	3.16	1.90	10	20 1	/2 dens
Pohertson's	1/2 area	D0	7	1,915	1,713	200	470	403 521	1804	90%	200	0.83	5.45	10	55 1	/2 dens
Total Lift M	1/2 arca	0	(not in	chuding i	1,700 aartial tra	ile)	470	0	(not i	ncluding	209 nartial t	7.05	11.17	10	115	130
		0	(not m	ciuding j		113)		0	(not n	liciuuliig	partiari	14115)	11.17		115	150
Lift N - Symphony Express																
Jeff's Ode to Joy		N1	3	2.030	1.528	502	2.370	2.423	21%	40%	58	13.74	14.04	40	560	
Upper Adiago		N2	4	1 910	1,623	287	1,255	1 287	23%	43%	33	4 12	4 23	40	170	
Lower Adiago		N3	3	1.632	1.528	104	695	703	15%	29%	24	1.67	1.69	40	70	
Glissando		N4	4	1.667	1.529	138	845	856	16%	26%	21	1.78	1.80	40	70	
	open bowl	N5	6	1.896	1.683	213	910	935	23%	54%	101	9.15	9.40	8	70 1	/2 dens.
Rhapsody Bowl Left	open bowl	N6	7	1.934	1.720	214	705	737	30%	75%	82	5.79	6.05	10	60 1	/2 dens.
Rhapsody Bowl Right	open bowl	N7	5	2.018	1.725	293	1.040	1.080	28%	47%	182	18.88	19.61	15	295	∕₂ dens.
Total Lift N		7	-	1			,	8,021					56.82		1,295	1,610
								, i							,	,
Lift O																
		01	6	1,753	1,536	217	880	906	25%	60%	42	3.66	3.77	15	55	
		02	5	1,838	1,528	310	1,420	1,453	22%	48%	38	5.40	5.53	30	165	
	open bowl	03	5	1,795	1,541	254	950	983	27%	48%	125	11.86	12.28	15	185 !	∕₂ dens.
		04	5	1,742	1,590	152	680	697	22%	35%	48	3.23	3.31	30	100	
		05	5	2,010	1,635	375	2,110	2,143	18%	50%	41	8.65	8.79	30	265	
	open bowl	06	5	1,857	1,639	218	1,000	1,023	22%	48%	64	6.39	6.54	15	100 1	∕₂ dens.
		07	7	1,909	1,810	99	190	214	52%	81%	66	1.25	1.41	20	30	
		08	6	1,935	1,710	225	715	750	31%	57%	48	3.40	3.56	15	55	
		09	7	1,906	1,720	186	360	405	52%	69%	102	3.67	4.13	20	85	
		O10	6	1,935	1,704	231	675	713	34%	63%	91	6.14	6.49	15	95	
		011	7	2,000	1,706	294	625	691	47%	94%	211	13.19	14.58	20	290	
		012	7	2,001	1,730	271	645	700	42%	81%	25	1.63	1.77	20	35	
		013	7	2,000	1,739	261	625	677	42%	77%	141	8.84	9.58	20	190	
		014	7	1,995	1,763	232	550	597	42%	80%	225	12.37	13.43	20	270	
		015	6	2,009	1,894	115	430	445	27%	57%	93	3.99	4.13	15	60	
		016	4	2,010	1,706	304	1,415	1,447	21%	42%	42	5.89	6.02	40	240	
Total Lift O		16						13,846					105.32		2,220	1,150

Whistler Mountain Master Plan Update



				Ele	vation	Total	Horz.	Slope	Perce	nt Slope	Avg.	Horz.	Slope	Skiers A	t Area	
Trail		Trail	Skill	Тор	Bottom	Vertical	Dist.	Dist.			Width	Area	Area			Lift at
Name		No.	Class	Meters	Meters	Meters	Meters	Meters	Avg.	Steep.	Meters	Ha.	Ha.	Density	Total	Area
<u>Lift P</u>																
		P1	4	1,729	1,504	225	840	870	27%	40%	39	3.30	3.42	40	135	
		P2	3	1,649	1,504	145	605	622	24%	36%	45	2.70	2.78	40	110	
		P3	3	1,596	1,530	66	245	254	27%	31%	51	1.24	1.28	40	50	
		P4	3	1,691	1,660	31	85	90	36%	36%	47	0.40	0.43	40	15	
	1/2	P5	6	1,725	1,660	65	180	191	36%	46%	42	0.75	0.80	15	10	
Jolly Green Giant	1/3 area	F10	3	1,838	1,605	233	1,035	1,061	23%	32%	50	5.15	1.76	40	70	
Chipmunk Terrain Park		F14	4	1,050	1,570	14	350 120	338	21%	29%	40	1.00	1.04	40	05	
Dohoot		F13	3	1,055	1,038	1/	130	131	13%	13%	49 57	2.47	2.57	40	25 145	
Covota		F10 E17	5	1,005	1,430	147	450	462	24%	57%0 4104	37	5.47 1.79	5.57 1.92	40	143	
Green Acres Left		F17 F18	4	1,300	1,450	250	430	9402	2370	4170	40 55	5.05	5.24	40	210	
Gleen Acles Leit		F10		1,730	1,400	230	915	03/	2170	4170	55 60	5 30	5 56	30	165	
		F20	3	1,740	1,500	107	550	560	10%	40%	/18	2.63	2.68	40	105	
		F24	3	1,045	1,730	45	155	161	29%	39%	40	0.64	2.00	40	25	
	glades	D34	7	1,555	1,510	167	420	452	40%	71%	41	1.85	1.99	10	20	1/2 dens
Ratfink Right	glades	D35	7	1,701	1,014	82	170	189	48%	79%	62	1.05	1.77	10	10	1/2 dens.
Ratfink	8	D36	6	1,835	1,635	200	860	883	23%	58%	37	3.20	3.29	15	50	/2 dens.
	glades	D37	6	1,805	1,714	91	280	294	33%	53%	58	1.62	1.70	8	15	1/2 dens
Marmot	8	D38	3	1,730	1.581	149	1.280	1.289	12%	17%	13	1.62	1.63	40	65	/2 001101
Total Lift P		18	(not inc	cluding	partial tra	ils)	-,	9,312	(not i	ncluding	partial t	rails)	42.10		1,365	1,900
Lift Q - Fitzsimmons Express			G I.C													
Total Lift O		0	See Lir	t A Trai	S			0					0.00		0	710
Total Lit Q		0						0					0.00		0	/10
Lift T																
		Т1	4	1 617	1 531	86	610	616	14%	26%	26	1 57	1 59	40	65	
		T2	5	1,017	1,033	460	1 680	1 742	27%	50%	45	7 57	7.85	30	235	
		T3	6	1,195	1 130	215	460	508	47%	63%	53	2 43	2.68	15	40	
		T4	6	1,631	1,033	598	1.670	1.774	36%	58%	47	7.81	8.30	15	125	
		T5	6	1,631	1,099	532	1,415	1,512	38%	55%	47	6.65	7.10	15	105	
		Т6	6	1.455	1.246	209	615	650	34%	47%	44	2.70	2.85	15	45	
		Τ7	6	1,361	1,325	36	175	179	21%	21%	22	0.39	0.40	15	5	
		Т8	4	1,166	1,075	91	605	612	15%	30%	20	1.19	1.20	40	50	
Total Lift T		8						7,591					31.97		670	1,230
<u>Lift U</u>																
		U1	5	1,968	1,683	285	1,590	1,615	18%	45%	11	1.76	1.79	30	55	
		U2	6	1,595	1,370	225	750	783	30%	55%	43	3.22	3.36	15	50	
		U3	7	1,725	1,365	360	1,045	1,105	34%	65%	46	4.79	5.07	20	100	
		U4	6	1,825	1,385	440	1,480	1,544	30%	65%	43	6.32	6.59	15	100	
		U5	5	1,770	1,412	358	1,330	1,377	21%	47%	53	7.04	7.29	30	220	
Control and the second	2/2	06	5	1,698	1,365	353	1,400	1,439	24%	48%	46	0.4/	6.65	30	200	
Cockalorum west Bowl	2/3 area $2/3$ area	GI /	/ 7	1,969	1,080	283	690 255	/46	41%	81% 0.4%	116	12 47	5.76	20	115	
Dagel DOWI Right	$\frac{2}{3}$ area $\frac{2}{3}$ area	C10	/	1,950	1,085	203	000	/0/	40% 270/	94% 480/	200	13.4/	9.09 1.04	20	195	
Dagel DOWI Lell	2/3 area	C20	5 6	1,905	1,702	203	555	504	31% 200/	40% 63%	4/	2.39 10.29	1.04	15	33 105	
Total Lift II	213 area	6	(not in/	1,071	1,723 nartial tra	(ils)	570	7 864	<u>4970</u>	ncluding	nartial+	10.20	55 19	15	1 105	1 1/0
I GUALLAIL U		0	, not int	Juang	Partial fla			7,004	(not ll	rendung	Partiart		55.10		1,175	1,140



			Ele	vation	Total	Horz.	Slope	Perce	nt Slope	Avg.	Horz.	Slope	Skiers A	t Area	
Trail	Trail	Skill	Тор	Bottom	Vertical	Dist.	Dist.		_	Width	Area	Area			Lift at
Name	No.	Class	Meters	Meters	Meters	Meters	Meters	Avg.	Steep.	Meters	Ha.	Ha.	Density	Total	Area
Lift V															
	V1	5	1,828	1,195	633	1,955	2,055	32%	50%	48	9.35	9.83	30	295	
	V3	6	1,805	1,490	315	1,060	1,106	30%	55%	43	4.57	4.77	15	70	
	V3	7	1,545	1,210	335	985	1,040	34%	71%	42	4.17	4.40	20	90	
	V4	6	1,785	1,202	583	1,540	1,647	38%	60%	48	7.33	7.84	15	120	
	V5	6	1,820	1,295	525	1,490	1,580	35%	58%	44	6.58	6.98	15	105	
	V6	6	1,640	1,325	315	810	869	39%	53%	52	4.24	4.55	15	70	
	V7	6	1,404	1,300	104	480	491	22%	30%	39	1.86	1.90	15	30	
Total Lift V	7						8,788					40.27		780	1,590
Lift W															
	W1	4	1,444	662	782	2,785	2,893	28%	44%	43	12.06	12.53	40	500	
	W2	6	1,330	914	416	1,430	1,489	29%	54%	47	6.72	7.00	15	105	
	W3	3	1,444	854	590	2,790	2,852	21%	40%	35	9.86	10.08	40	405	
Dusty's Descent	G26	5	1,385	1,110	275	815	860	34%	43%	57	4.67	4.93	30	150	
	G27	6	1,145	985	160	710	728	23%	37%	50	3.57	3.66	15	55	
Home Run	G28	6	1,084	955	129	355	378	36%	42%	41	1.46	1.55	15	25	
Total Lift W	6						9,199					39.75		1,240	1,600
Lift X															
Southside Ski-out		3	1,014	605	409	3,680	3,703	11%	40%	12	4.36	4.39	40	175	
Total Lift X	1		i				3,703					4.39		175	0
Lift Y															
	Y1	5	1.365	1,195	170	780	798	22%	50%	42	3.25	3.33	30	100	
	Y2	3	1,367	1,010	357	1.525	1.566	23%	38%	41	6.26	6.43	40	255	
	Y3	3	1,197	1.010	187	950	968	20%	34%	39	3.69	3.76	40	150	
	¥4	5	1 187	1,010	143	555	573	26%	50%	39	2.18	2 25	30	70	
	Y5	6	1,305	1,165	140	270	304	52%	58%	55	1.48	1.67	15	25	
	Y6	6	1,305	1,105	265	825	867	32%	52%	43	3.52	3.70	15	55	
Total Lift Y	6	0	1,0 11	1,070	200	020	5,077	02/0	02/0	10	0.02	21.14		655	710
Lift Z															
	Z1	2	1.098	1.015	83	500	507	17%	30%	37	1.87	1.90	50	95	
	Z2	2	1,098	1,015	83	470	477	18%	26%	37	1.73	1.76	50	90	
Total Lift Z	2		,				984					3.66		185	410
Olympic Beginner Zone															
CLC Carpet		1	1,026	1,024	2	28	28	7%	7%	35	0.10	0.10	75	10	
CLC Handletow I		1	1,035	1,026	9	95	95	9%	9%	25	0.24	0.24	75	20	
CLC Handletow II		1	1,032	1,023	9	95	95	9%	9%	25	0.24	0.24	75	20	
CLC Backyard		1		, -								0.45	75	35	
Walk-up zone		1										0.50	75	40	
Olympic Carpet I		1	1,026	1,023	3	40	40	8%	8%	30	0.12	0.12	75	10	
Olympic Carpet II		1	1.032	1.026	6	60	60	10%	10%	30	0.18	0.18	75	15	
Olympic Carpet III		1	1,033	1,026	7	60	60	12%	12%	60	0.36	0.36	75	25	
Olympic Carpet IV		1	1,047	1,024	23	170	172	14%	14%	34	0.57	0.58	75	45	
Total Beginner Zone	9			,			551					2.77		220	460



			Ele	vation	Total	Horz.	Slope	Perce	nt Slope	Avg.	Horz.	Slope	Skiers A	At Area	
Trail	Trail	Skill	Тор	Bottom	Vertical	Dist.	Dist.			Width	Area	Area			Lift at
Name	No.	Class	Meters	Meters	Meters	Meters	Meters	Avg.	Steep.	Meters	Ha.	Ha.	Density	Total	Area
Garbanzo Beginner Zone															
Walk-up zone		1	1,676	1,672	4	60	60	7%	7%	40	0.24	0.24	75	20	
Short Carpet		1	1,672	1,667	5	70	70	7%	7%	35	0.25	0.25	75	20	
Long Carpet		1	1,676	1,656	20	170	171	12%	12%	35	0.60	0.60	75	45	
Total Beginner Zone	3						301					1.09		85	220
Southside Beginner Zone															
		1	1,025	1,013	12	170	170	7%	7%	35	0.60	0.60	75	45	
Total Beginner Zone	1						170					0.60		45	100
Kadenwood Beginner Zone															
		1	880	865	15	130	131	12%	12%	58	0.75	0.75	75	55	
Total Beginner Zone	1						131					0.75		55	120
Other Trails															
Upper Sidewinder	1	3	1,595	1,460	135	1,380	1,387	10%	9%	13	1.86	1.87	40	75	
Roundhouse-Peak Skiway	2	3	1,830	1,775	55	410	414	13%	13%	11	0.44	0.44	40	20	
Saddle-Burnt Stew	3	3	2,085	2,053	32	150	153	21%	21%	38	0.57	0.58	40	25	
Harmony-Saddle		5	2,105	2,088	17	220	221	8%	8%	10	0.23	0.23	30	5	
skiway T2-W	6	5	1,465	1,430	35	245	247	14%	14%	57	1.40	1.41	30	40	
skiway from T	7	4	1,032	950	82	660	665	12%	12%	21	1.41	1.42	40	55	
skiway from T	8	4	1,033	925	108	410	424	26%	38%	33	1.35	1.40	40	55	
Skiway W-U	J 9	5	1,445	1,428	17	85	87	20%	20%	105	0.89	0.91	30	25	
		3	1,985	1,955	30	110	114	27%	27%	41	0.45	0.47	40	20	
Total Other Trails	9						3,712					8.73		320	
Total All Lifts	245						182.1	km				923.5	Ha	23,885	29,730

The Phase 17 ski trail balance, as listed in Table V.4 and illustrated in Plate V.1, indicates that Whistler Mountain will have excesses of low intermediate and expert terrain, quite similar to the existing balance, which has been quite successful over the years, supplemented by Blackcomb's amount of intermediate and high intermediate terrain.



TABLE V.4 WHISTLER MOUNTAIN CUMULATIVE SKI TRAIL BALANCE STATEMENT BUILDOUT

5.2 34.0	405	1.7%	5%
34.0	1 700		
	1,700	7.1%	10%
164.3	6,575	27.5%	20%
99.0	3,960	16.6%	30%
162.8	4,320	18.1%	20%
244.1	3,390	14.2%	10%
214.1	3,535	14.8%	5%
923.5	23,885	100%	100%
	164.3 99.0 162.8 244.1 214.1 923.5	164.3 6,575 99.0 3,960 162.8 4,320 244.1 3,390 214.1 3,535 923.5 23,885	164.3 6,575 27.5% 99.0 3,960 16.6% 162.8 4,320 18.1% 244.1 3,390 14.2% 214.1 3,535 14.8% 923.5 23,885 100%

Average Density =	32.2 Skiers/Hectare
Optimum Density =	32.6 Skiers/Hectare
Weighted Demand =	4,586 VTM/Skier/Day

WHISTLER MOUNTAIN SKI TRAIL BALANCE - BUILDOUT



PLATE V.1



Table V.5 summarizes the Whistler Mountain Trail Balance by Lift System and Plate V.2 graphically illustrates the Lift vs. Trail Capacity. A number of ski pods appear to be slightly over lifted; however, this will reduce line-ups on peak days and provide a higher quality experience for the skier.

Lift No.	A & Q	В	С	D(R)	Ε	F(R)	G	Н	Ι	K(R)	
Lift Name	Gondola &	Upper (Creekside	Harmony	Big Red	Emerald	The	Garbanzo	Olympic	Franz's	
	Fitzsimmons	Village	Gondola	Express	Express	Express	Peak	Express		Express	
Lift Type	D10G/D4C-B	D8G	D6G	D6C	D4C	D6C	D4C	D4C	Combi	D4C	
Lift Capacity	1,460	2,890	790	1,750	1,560	2,240	770	2,350	630	1,600	Skiers/Day
Trail Capacity	1,125	1,315	430	2,575	2,060	1,310	1,285	1,140	315	815	Skiers/Day
Trails:Lifts	77%	46%	54%	147%	132%	58%	167%	49%	50%	51%	
Average Densi	ty 28.9	90.0	60.2	13.7	18.2	70.5	10.6	59.1	98.9	43.8	Skiers/Hectare
Optimum Densi	ity 43.6	41.6	33.9	27.2	31.6	41.6	20.7	34.0	50.0	31.7	Skiers/Hectare
Demand VTM	2,568	2,970	4,534	5,704	4,752	2,903	6,994	4,269	2,120	3,968	VTM/Skier/Day
Balance											
Beginner	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Novice	36%	27%	0%	0%	7%	18%	0%	4%	100%	0%	
Low Intermedia	te 64%	52%	0%	17%	31%	64%	2%	17%	0%	66%	
Intermediate	0%	11%	44%	21%	17%	17%	0%	30%	0%	0%	
High Intermedia	ate 0%	10%	52%	7%	8%	2%	18%	39%	0%	0%	
Advanced	0%	0%	3%	23%	18%	0%	30%	10%	0%	30%	
Expert	0%	0%	0%	32%	19%	0%	50%	0%	0%	4%	
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	

TABLE V.5 WHISTLER MOUNTAIN TRAIL BALANCE BY LIFT SYSTEM

Lift No.	L	Μ	Ν	Oa	Р	Т	U	V	W	Y	Z	
Lift Name	Orange	Roberts on's	Symphony	Flute	Yellow		Bagel	Upper	Big	Whistler	Whistler	
	Gondola		Express	Peak	Express		Bowl	Khyber	Timber	South	South	
Lift Type	D8G	4C	D4C	D6C	D4C	D4C	D6C	D4C	D8G	D6C	4C	
Lift Capacity	1,320	130	1,610	1,150	1,900	1,230	1,140	1,590	1,600	710	410	Skiers/Day
Trail Capacity	895	115	1,295	2,220	1,365	670	1,195	780	1,240	655	185	Skiers/Day
Trails:Lifts	68%	88%	80%	193%	72%	54%	105%	49%	78%	92%	45%	
Average Density	50.9	11.6	28.3	10.9	45.1	38.5	20.7	39.5	40.3	33.6	112.0	Skiers/Hectare
Optimum Density	y 36.3	20.0	35.4	25.2	37.0	24.6	23.4	21.3	35.1	34.4	50.0	Skiers/Hectare
Demand VTM	4,140	8,475	3,945	6,419	3,729	5,265	6,429	5,907	3,943	3,791	2,120	VTM/Skier/Day
Balance												
Beginner	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Novice	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	
Low Intermediate	e 13%	0%	49%	0%	45%	0%	0%	0%	33%	62%	0%	
Intermediate	55%	0%	19%	11%	36%	17%	0%	0%	40%	0%	0%	
High Intermediat	e 21%	0%	23%	37%	12%	35%	44%	38%	12%	26%	0%	
Advanced	4%	0%	5%	12%	5%	48%	21%	51%	15%	12%	0%	
Expert	3%	100%	5%	41%	2%	0%	34%	12%	0%	0%	0%	
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	





LIFT VS. TRAIL CAPACITY





.6 Snowmaking

Ski areas are generally considered to be feasible if there is at least a 90 percent probability of a 60 to 75 cm snowpack by December 15. It is important that a ski area as large as Whistler Mountain, with its associated destination tourist facilities, have a reliable, guaranteed snowpack early in December.

Snowmaking below 1,600 metres elevation on the west side and 1,325 metres on the north side of Whistler Mountain will help to ensure that early December and late April skiing to the valley will be possible. Snowmaking on the upper mountain ensures that there is a skiable snowpack present during low snow periods like those experienced up to Christmas (& beyond in 2008/09) and during several of the last few years. The Inventory section details the existing snowmaking system, including the 117 hectares currently covered by snowmaking. In the future, Whistler proposes to expand the snowmaking system significantly to increase the number of below tree line runs covered to provide more skiable terrain in those times of low snowpack. Routes currently anticipated to require snowmaking coverage in the future are shown on the proposed snowmaking map (Figure 15).

As illustrated, the proposed snowmaking system would cover approximately 295 hectares; an increase of about 178 hectares (152%) over the existing system. In times of extremely low snowpack, skiing would be possible on most of the lower mountain and one or two runs on each of the lifts below the alpine. Snowmaking would also be provided on key connector trails such as Pika's Traverse.

	Snowmaking Coverage						
	Hectares	Acres					
Current	117	289					
Proposed	295	729					
Increase	178	440					
Percent Increase	152%						

TABLE V.6 WHISTLER MOUNTAIN SNOWMAKING SUMMARY

Collectively, the two mountains hold water licenses to withdraw up to 13.098 million cubic metres per year from 11 creeks within the CRA. Whistler Mountain's existing licenses total 4.247 million cubic metres per year (1,121 million US gallons or 5,270 acre-feet) from seven creeks. Additionally approximately half of Blackcomb's license for Fitzsimmons Creek is available for use with Whistler Mountain's snowmaking system, meaning that Whistler Mountain has access to



approximately 7.2 million m ³/year as shown in Table V.7. The current annual water usage ranges from 265,000 m ³ (70 million US gallons) to 568,000 m ³ (150 million US gallons) depending on the season. Therefore, there is more than enough capacity within the existing water licenses to handle the proposed 152% increase in snowmaking coverage.

	Water L	licenses
	Thousand	Million
	m ³ /year	USG/year
Approved Annual Amount	4,247	1,717
Diverted from Blackcomb	2,995	791
Available for Whistler	7,242	1,193
Current Use	265 to 568	70 to 150
Percent of License Used	8%	8%
Excess Capacity Available	6,674	1,763

TABLE V.7 WHISTLER MOUNTAIN SNOWMAKING CAPACITY SUMMARY

As the system expands, more pump stations, compressor buildings, valve stations, water intakes, etc. will be needed. The exact size and location of these facilities will be determined during detailed design of the snowmaking system. As part of this expansion, the existing snowmaking reservoirs may need to be reconfigured to accommodate larger water capacities. A third reservoir will be needed in the Westside/Southside area. Two potential sites have been indicated on the plan, however, neither of these sites have been confirmed in the field. As unforeseen circumstances arise, such as market changes, operational changes and climate change, it may be also be necessary to install snowmaking on trails not detailed on the included map to ensure optimal operations and guest satisfaction.

.7 On-Mountain Buildings

Design Day

To assist in the planning of skier service facilities, the number of skiers/boarders (the Skier Carrying Capacity/SCC) that would be skiing on the mountain on a "Design Day" needs to be determined. The design day is chosen to represent the average business levels expected during the high season. This is not the "Peak Day" experienced during the season since if facilities were designed for the peak day, they would be under-utilized for the balance of the season. For Whistler Blackcomb, "Design Day" has been selected as the average of the top fifteen skier visit days of the ski season, which means that level of visits can be expected to be exceeded just 8



to 10 times per year. On days when the skier visits exceed the Design Day, the facilities will feel somewhat crowded or stressed. If this only happens during the busiest holiday periods such as Christmas or President's Week when skiers and guests expect facilities to be full, it will be tolerated. If however, the crowding occurs on "typical" weekends during the peak winter seasons, then people become annoyed and may not return.

With current patterns of visitation, the average of the top fifteen busiest days is approximately equal to 80% of the skier visits on the peak day. If annual visit levels increase from 2.1 million skier visits to 2.8 million skier visits and peak day visits increase accordingly, then the two mountains combined could see peak days in the range of 37,000 skiers per day at buildout. Based on the available lift and terrain capacity on each mountain at build out and the future staging lifts proposed for each mountain, we project that about 22,200 (60%) of these skiers would be skiing on Whistler Mountain and 14,800 skiers would be on Blackcomb Mountain. Assuming the same relationship of 80% of expected peak day, the "Design Day" for Whistler Mountain would be approximately 17,760 skiers at buildout. For food service seating Whistler Blackcomb's goal is to provide food service seats for 70-75% of the anticipated peak day skiers. This target is at the upper end of the 65 to 75% range generally recommended for most ski areas and should provide skiers at Whistler Blackcomb with a high level of service.

Skier Service Buildings/Restaurants

A significant element in ensuring a positive skier experience is the placement and sizing of restaurants in convenient and logical locations throughout the mountain. As previously discussed, with the addition of new lifts there will be an associated requirement for new restaurant facilities and/or the upgrading of existing facilities to provide adequate service for skiers. Anticipated sizes and locations of the mountain restaurants by phase were described in the general description of each development phase and are summarized below.

As mentioned in the Inventory section of this report, Whistler Mountain currently operates 2,534 indoor seats and 1,184 outdoor seats for food service seating, including 1,928 indoor seats on-mountain and 690 outdoor seats onmountain, with a significant shortage of on-mountain seats. Other than the three proposed new staging lifts, all future lift and trail development will be limited to the upper mountain, therefore it is anticipated that the vast majority of the additional skiers will be skiing on the upper mountain and a significant increase in upper mountain restaurant seats is required.



Several new food service facilities are proposed for the Whistler Mountain skiing complex, ranging in size from about 50 seats to 500 seats. These facilities will include restrooms and may also include space for guest services, ski school, ski rental (for exchanging gear), accessory retail, ski patrol or employee facilities depending on the location. In both planning and implementation, the general goal is to locate mountain restaurants in close proximity to the terrain that skiers are skiing so that they do not have to spend a large part of their ski day travelling back and forth to the warming and lunch facilities. Careful restaurant site location can result in less traffic on selected lifts and trails during the pre-lunch and post-lunch periods, as well as better utilization of the more remote skiing zones since skiers are less likely to come back to these areas after lunch if it is a long distance from their lunch spot. The proposed restaurant sites are shown graphically in Figure 14a and described briefly below. A range of sizes has been suggested for many of the sites, the actual number of seats will be determined at the design stage. If some of the restaurants are built at the larger end of the range, all of the sites may not be needed.

The Symphony Bowl/Flute Peak area is fairly remote from the rest of the existing ski area and therefore if food service and warming facilities were provided, skiers would be encouraged to stay longer in this general zone. The saddle between Piccolo and Flute peaks has spectacular vistas and is more protected from the weather than the peaks. This would be an ideal site for a small food service facility of 100 to 150 indoor seats with a moderate size deck for outdoor seating. As described in a later section, this facility is also proposed to have a small lodge component, with several beds for overnight accommodation. A small (50+) seat warming facility (with restrooms) located at the bottom of Symphony Bowl and equipped with vending machines or limited food service is also proposed for this zone.

The small Harmony Tea House at the top of the Harmony lift will be replaced by a small mountain restaurant on the small peak just east of the existing hut. The new facility will be similar in size to the Crystal hut on Blackcomb (100 to 150 seats) and have spectacular views in all directions. The Tea House will be turned over to ski patrol use to provide a "base" for rescue on much of the upper mountain.

A larger restaurant is proposed close to the bottom of the Harmony chair where there is room to provide a full food service facility for most of the Harmony zone and much of the Symphony/Flute zone, due to the smaller facilities planned there. There should be a big demand in this area as the combined SCC of Flute, Symphony, and Harmony is almost 5,000 skiers per day. A facility of 400 to 500 indoor seats may eventually be required in this location, however, it could be built in two phases, perhaps 250+ seats first and the balance provided at a later date.



A small restaurant is proposed at the top of the Peak chair. This location has been identified in the Whistler Mountain plans for many years and still remains an exceptional location for a restaurant "at the top" that would be popular for both summer sightseers and winter skiers. The views are fantastic with Black Tusk in the foreground and the ability to see as far as Howe Sound on clear days. A facility of approximately 100 to 150 indoor seats is proposed. This site is also been considered for a small on mountain lodging component.

The Olympic Meadows area has limited food services yet there is a large number of skiers based in this area including return cycle skiing (on the Village Gondola, Garbanzo and Fitzsimmons), beginner skiers in the Olympic zone and youth racers training in the Dave Murray Training Centre. Although children under twelve in ski school eat at the Children's Learning Centre (CLC), other skiers in this zone must move to the top or bottom of the gondola to get food. A new facility could be located adjacent to or on top of the existing gondola building and would likely need 150 to 250 indoor seats.

A new food service facility with approximately 400 to 500 indoor seats is proposed for the top of the new Orange Gondola. This facility will be located near the existing fuel depot, with views to the south, including towards Whistler Peak. The restaurant would be directly accessible from Creekside by gondola for both skiers and pedestrians, making it ideal for holding dinners and functions of a smaller scale than those held at the Roundhouse. The building should have a sizeable deck area and could provide some indoor space for accessory retail, rental exchange, ski school/guest services, etc.

To support the creation of the new Learning Centre adjacent to the top of the Garbanzo lift, restrooms, warming space and a ski school lunch space are also required. These uses could be located in the existing Whistler Mountain Ski Club (WMSC) building and/or the proposed Orange Gondola restaurant. If the existing WMSC cabin is used for this purpose, Whistler would construct replacement space for WMSC in the area. The cabin could then either be expanded to accommodate all the space needed for lunches, or used for restrooms and warming, with the lunch space provided within the Orange restaurant. The children's lunch area should contain approximately 75 to100 seats and a small kitchen.

The existing Raven's Nest restaurant at mid station occupies what once was an old house at the top of the original Whistler gondola. With only 65 indoor seats, this facility is undersized for the area. A new facility containing approximately 300 to 400 indoor seats and a large deck area containing approximately 150 seats is proposed to replace the existing building.



Dusty's Bar and Café at Creekside currently contain 69% of the Whistler Mountain indoor restaurant seats in the valley. An additional 90 seats in the Whistler Kid's facility are used to feed children in ski school. In addition, there are other food and beverage facilities located in the commercial space at Creekside that are close enough to the lifts for skiers to use at lunch. No increase in food service space operated by Whistler Blackcomb is anticipated in the Creekside area.

The Westside expansion accommodates a significant number of skiers in a new zone that will require its own mountain restaurants. A small 75-150 seat mountain restaurant is proposed for the top of the proposed Bagel Bowl lift and a larger 300-400 seat facility is proposed for the bottom of the Bagel Bowl lift to capture and keep Westside skiers on this part of the mountain. The South Base will also contain a food service facility in its daylodge, containing about 100-200 seats, space for Children's ski school and staging facilities for day skiers such as ticket sales and equipment rentals.

In summary, many sites have been identified for food service and other skier service facilities, both on-mountain and in the base. To ensure a high level of service even during peak holiday periods, it is Whistler Blackcomb's goal to provide food service seats for 70-75% of the anticipated peak day skiers. This target is at the upper end of the 65 to 75% range generally recommended for most ski areas. Assuming a peak day of about 22,200 skiers and assuming an average of 3 turns per seat during the lunch time rush, approximately 5,550 seats are required (more than double the existing 2,534 indoor seats). The locations and size ranges described above will provide sufficient additional seats to meet this target. The exact size and location of each food service facility (whether new or expanded) however, will be determined at the detailed planning stage, immediately in advance of construction. The goal will be to provide sufficient food service seats to meet guest requirements and to create new and unique dining experiences on the mountain.

Overall Skier Service Floorspace

As described in the Inventory Section of this report, the skier service facilities needed at a ski resort can be separated into 12 functions grouped into three categories; Staging Facilities which skiers need as they arrive at the ski area prior to starting skiing, Commercial Facilities which are needed throughout the day and Operational Facilities which support the operation. To estimate the overall skier service floorspace recommended for Whistler Mountain at buildout, Ecosign has adjusted our resort standards to capture Whistler Blackcomb's service goals and applied them to the anticipated Design Day at Buildout of 17,760 skiers. As shown in Table V.8, the total recommended functional space at buildout for Whistler Mountain is approximately 21,120 square metres. Given the existing skier floorspace



and its allocations, approximately 8,230 square metres of new skier service floorspace is required, which when making an allowance for space for circulation, mechanical and electrical equipment and storage, translates into a need for approximately 10,285 m² of new built space.

In a resort with significant commercial space surrounding the valley staging lifts, other businesses could provide some of the staging requirements such as equipment rentals or the resort operator could lease commercial space for skier services instead of construction new buildings. New staging facilities will be required at Creekside to service the additional skiers staging through this portal once the Orange or Big Timber gondolas are constructed. It is expected this space will be provided within the existing commercial buildings at Creekside. Increases in the proportion of these services that are pre booked (seasons passes, tickets, ski school, rentals) could reduce the amount of floorspace needed at the lift base, while an increased proportion of skiers arriving by transit may increase the demand for public locker space. Detailed requirements will be developed when the lifts are planned to go in.

The South Base will have a daylodge that will provide staging facilities for those skiers originating from the parking or accommodation located at this base.



TABLE V.8 WHISTLER MOUNTAIN SKIER SERVICE FLOORSPACE PROGRAMMING DESIGN DAY = 17,760 SKIERS

	Modified	Recommended	Existing	New
	Resort	Total	Floor	Floor
	Area	Floor	space	Space
	Standards	Space	_	Needed
	m²/skier	m ²	m ²	m ²
Staging Facilities				
Ticket Sales	0.014	247	122	125
Public Lockers	0.111	1,980	552	1,428
Equipment Rental & Repair	0.093	1,650	1,182	468
Guest Services / Ski School	0.046	825	314	511
Children's Programs/Daycare	0.046	825	625	200
Sub-total Staging	0.311	5,527	2,795	2,732
Commercial Facilities				
Food & Beverage Seating	0.375	6,660	3,619	3,041
Kitchen & Scramble	0.174	3,094	1,452	1,642
Rest Rooms	0.087	1,547	982	565
Accessory Retail	0.070	1,237	1,405	- 167
Sub-total Commercial	0.706	12,538	7,457	5,081
Operational Facilities				
Administration	0.093	1,650	1,583	67
Employee Facilities ^{1.}	0.046	825	1,439	n.a.
First Aid & Ski Patrol	0.033	577	229	348
Sub Total Operational	0.172	3,052	3,251	415
Total Functional Space	1.189	21,118	13,504	8,228
Storage	0.119	2,112	919	823
Mechanical/Circulation/Walls/Waste	0.178	3,168	1,582	1,234
Total Skier Service Space	1.486	26,397	16,005	10,285

Operations and Other Buildings

In addition to skier service buildings and buildings associated with lifts, a ski area needs many other buildings for operations. These include, but are not limited to maintenance shop, lift maintenance, snowmaking operations (pumphouse, compressors, valve houses, hose drying space, etc.), storage, race course support (start shacks, timing, etc), patrol "huts", outdoor adventure tourism centres, etc.

As mentioned previously, the Whistler fuel depot will be moved from its current position to the flats just below Pig Alley. This will be expanded over time to accommodate the future needs as the ski area expands. As terrain expands and the skiable area increases, the maintenance shop will need to be expanded to accommodate the larger operations and maintenance group (not only maintaining grooming machines, but also snowmobiles, wood shop, parts room, metal shop, sign



shop, building maintenance, etc.). Due to lack of space at the current site, a second site will be required to accommodate the necessary expansion. Mountain operations has identified a site known as the Red Chair flats, near the bottom of Banana Peel, that is large enough to accommodate a satellite facility or a full service shop. This site is centrally located and will allow access to the new Westside area. There is also sufficient land to provide a road accessible maintenance facility at the South base.



Alpine Maintenance Shop

As mentioned previously, buildings associated with snowmaking expansion will be designed and located when detailed design of snowmaking systems are performed. These will likely be located adjacent to the existing or proposed snowmaking coverage as shown in the Proposed Snowmaking Map (Figure 15). Small buildings for grip maintenance are proposed adjacent to either the top or bottom terminal of the detachable lifts. These on-site grip maintenance sheds allow the mandatory grip maintenance to be carried out on an ongoing basis throughout the ski season, as opposed to having the chairs moved off-site for grip maintenance in the off season.

The smaller buildings are both permanent and temporary in nature and are typically located, designed and built as the need arises (and the need is not always foreseen). Ticket sales, storage, employee facilities, etc., for adventure tourism


activities will also be needed as Whistler accepts proposals for those types of activities to be located within their CRA.

Mountain Lodges

In the backcountry surrounding Whistler Blackcomb, there are several small alpine cabins with sleeping spaces allowing hikers and backcountry skiers to spend one or several nights while enjoying the outdoors. Blackcomb would like to create a small mountain lodge for their guests within their CRA. This type of facility would enable Whistler Blackcomb to offer skiers who don't have backcountry skills the unique experience of staying in a secluded high alpine back country lodge. It is anticipated that this facility will contain a small restaurant kitchen for morning breakfast, lunch during the day and evening dining, as well as 35 to 50 indoor seats for day use to compliment the accommodation facilities. The food service facilities could be used by ski area guests, backcountry skiers beginning or finishing the Spearhead Traverse or by sight seeing guests who would be brought to the facility by snowcat.

Whistler Blackcomb has identified two potential sites for a small mountain lodge in the Symphony Bowl Area. The first site is on the saddle between Piccolo peak and Flute peak to provide food services during the day and limited sleeping facilities at night. This site is somewhat secluded and provides dramatic panoramic views in almost every direction. The second site is nestled in the trees just below the flat area at the bottom of Flute Bowl. The small proposed mountain restaurant at the top of the Peak Chair would also be a spectacular location to provide some on mountain lodging.

.8 Controlled Recreation Boundary (CRA)

The existing Controlled Recreation Boundary (CRA), is shown graphically on most of the Master Plan maps including the Existing Area Map and the Mountain Master Plan Map. The current CRA boundary is based on several amendments and clarifications to the CRA made over a number of years. There are no anticipated adjustments needed to the CRA to allow Whistler Mountain to accomplish its recreational and business goals, as outlined in the 2013 Whistler Mountain Master Plan Update.

.9 Other On-Mountain Activities

Although alpine skiing/snowboarding is the chief form of recreation offered on Whistler Mountain, many other on-mountain activities are now offered to Whistler's visitors during both the summer and winter seasons. One factor which has



contributed to Whistler's success is the variety of activities that are available for resort visitors and local residents. Supplemental activities in winter have increased the attractiveness of Whistler to visitors who are not necessarily "hard-core" skiers and snowboarders.

Winter Recreation

Non-skiing guests and those who wish to spend only a portion of their winter vacation skiing or snowboarding, have many other activity options during the day and evening. Many of these activities occur in the village and on the valley floor, however, several activities take place on the mountain to allow non–skiing visitors to enjoy the alpine experience. The success of Vail's Adventure Ridge, mountain-top dining in the evening, and snow tubing now provided at many areas across North America help illustrate the desire of guests for more varied activities. Expansion of the existing alternative recreational activities and the addition of new activities will help to provide guests with a well rounded winter recreation experience.

Alternative on-mountain winter activities at Whistler Mountain include snowshoeing and dog sledding, and in the past have included ice skating, crosscountry skiing, etc. Whistler may choose to offer more of these activities in the future. Dining and sightseeing are also currently offered for non-skiers, with the possibility of using both mountains with the installation of the PEAK 2 PEAK Gondola in December 2008. Blackcomb Mountain currently offers snowmobile tours. Snowmobile tours could also occur on Whistler Mountain, with possible alpine destinations (huts and/or restaurants) being used in the future at Symphony Bowl, Harmony, or in the Westside expansion. Night skiing is also a possibility if demand warrants.

As described earlier, the area surrounding Olympic Station is planned to become an on-mountain "adventure centre" offering other recreational activities that complement the winter skiing use and the summer mountain biking. Recreational pursuits that can take advantage of the existing and proposed buildings, as well as the large expanse of gently sloping land around Olympic Station will be developed. Although there are large numbers of people milling around this area during both the winter and summer (many mountain bikers disembarking from the gondola), there is some land that could be used for other activities without interfering with the prime skiing or mountain biking functions.



Summer Recreation

Summer activities are extremely important to the success of the overall recreational facility and the resort destination. These activities make use of the infrastructure and accommodation facilities in place for winter recreation. Although summer activities are more concentrated in the Village and the valley floor than the winter season activities, most visitors currently make at least one trip to the top of the mountain via the existing ski lifts, primarily for sightseeing and hiking. In addition to sightseeing, hiking and mountain biking which is discussed below, the number and types of activities offered on the mountain have increased in the last few years. There are interpretative nature walks, guided wildlife viewing, horseback riding, snowshoeing in the spring, snowcat rides, horseback riding, mountain biking, ATV tours, skiing (on Blackcomb's glacier), paragliding, concerts, etc. Many of these activities use the unique environment and scenic backdrop of the mountain to provide a special experience for resort visitors.

Similarly to the way these activities have emerged over the past years, we anticipate that new on-mountain activities will be more in demand in the future. Whistler Mountain intends to expand existing activities and offer further on-mountain activities in response to market demand. The following list provides suggestions of some of the activities that Whistler may propose to stage on the mountain in the future but is not meant to preclude the addition of other activities that are complementary to the overall Whistler Mountain experience. Figure 16 graphically illustrates the Whistler Mountain Summer Recreation Plan.

Possible Future On-Mountain Activities

- Festivals and Events (using on mountain facilities during off peak hours or off peak seasons)
- Small Accommodation facilities for retreats, etc.
- Cross Country Skiing
- Snowmobile Rides
- Snowshoeing
- Night Skiing
- Horse Drawn Wagons/Sleighs
- Additional Food Facilities
- Alpine Slide or Coaster below Olympic Station terminating above the Village
- Water Slide
- Skating Rink
- Mini Golf
- Disc Golf



- Tubing
- Rock Climbing
- Outdoors School/Camps
- Ziplines/Rope Courses/Tree Canopy Adventures

Lift Serviced Mountain Biking

In the past fifteen years, it has been lift serviced mountain biking that has caused exponential growth in Whistler Mountain's summer visitation. With over 62.5 kilometres of trails, the Whistler Mountain Bike Park is the one of the largest parks in North America has plans to keep expanding to meet the growing number of riders. Whistler Blackcomb's vision of mountain biking in the long term involves a carefully considered expansion of trails within the areas outlined in Figure 16 Whistler Mountain Summer Recreation Plan. Trails will be developed with the intent of managing bike traffic and minimizing bottlenecks in access and egress. Care will be taken to locate trails to avoid environmentally sensitive areas or wildlife habitats. The options for mountain biking need to continue to be developed for all skill levels – more trails for experts while also focusing on more interesting/new trails for intermediate riders that will encourage skill progression. In addition, the existing learning area for beginners near Olympic Station needs to be improved and expanded. The areas of new trail development include:

Garbanzo/Red Zone:

• Expansion of intermediate trail options with easier flow trails

Peak Zone:

- The Top of the World Trail is currently the only mountain bike trail accessed via the Peak Express chairlift. Over time, additional trails on the lower mountain will be linked to the Top of the World to increase the options for a top to bottom mountain biking descent.
- Links to the existing cross-country mountain bike trails below Highway 86 are also planned.

Creekside zone:

- Development of trails leading from the Garbanzo zone (accessed via the Garbanzo Lift) over towards Franz' and down to the Creekside base.
- Trails to be built in phases with return to the Village initially via shuttle bus and when sufficient trails are built, lift service would be provided by the Creekside Gondola lift.
- The Creekside Gondola area could also be used to complete an uphill hiking trail with lift downloading offering a "Grouse Grind" experience, once the lift is operating for mountain biking.





Crankworx Mountain Bike Festival at Base of Whistler Mountain

.10 Spearhead/Fitzsimmons Hut System

Both Whistler and Blackcomb Mountains are highly supportive of the proposed Spearhead/Fitzsimmons Hut System. The Hut System is being proposed by non government organizations (NGO's) led by the Alpine Club of Canada, Whistler Section. A system of three huts was proposed by the BC Mountaineering Club (BCMC) in 1965 and one hut was built at Russet Lake near Singing Pass. The Singing Pass area has magnificent views of the Fitzsimmons and Spearhead Mountain ranges and the Cheakamus Glacier. Some of the area is accessible by the alpine route crossing Piccolo, Flute and Oboe summits on a route known as the Musical Bumps.

The Russet Lake Hut is also referred to as the Himmelsbach Hut named after Werner Himmelsbach who did much of the work in constructing the hut. The Himmelsbach Hut at Russet Lake can accommodate twelve people, although a busy Saturday night often experiences twenty with some having to sleep outside in tents.



The main object of the Spearhead/Fitzsimmons Hut system is to provide access to a wide variety of outdoor enthusiasts while providing shelter and overnight accommodation in appropriate locations that allows people to ski or hike the Spearhead Traverse in all seasons. The Spearhead Traverse is about 42 kilometres from the top of the Showcase T-bar on Blackcomb to the bottom of Whistler Village via the Singing Pass Trail. This is one of THE classic ski tour routes in North America with most skiers taking 2 to 3 days to complete the tour from Blackcomb to Whistler Village via the Spearhead and Fitzsimmons ranges. It is a high elevation traverse that stays above 1,825 metres (6,000 ft.) for almost the whole route, crossing 13 glaciers en-route.

The Alpine Club of Canada is identifying a number of potential sites for the locations of the huts. On the Blackcomb side, one leading site is a hut at Circle Lake, which is a spectacular site about 3-4 hours hike in the summer from the Rendezvous Restaurant. The Circle Lake Hut is in the planning phase. On the SW side (Whistler side), the likely location for the first hut on that side is a replacement of the Himmelsbach Hut at Russet Lake. It is ideally situated as a summer and winter destination. One or two more huts are planned and their locations are currently in discussion between the ACC, BCMC and other NGO's and Garibaldi Provincial Park authorities.

Whistler Blackcomb's role is a pragmatic ongoing one. Since the early 1990's, they have worked closely with BC Parks on developing a seamless trail system between the CRA and Park. High Note, Decker and Overlord trails are some of the results of this working relationship; a relationship that is recognized in the Province as a model of cooperation for improving park access for British Columbians. Whistler Blackcomb have been in discussion with Parks for some time on the next steps to continue the trail development to include the connection of the Musical Bumps into Cheakamus Lake and the Upper Spearhead connector. Whistler Blackcomb's primary interest is continuing the trail development with public support and the right financial mechanisms.

Whistler and Blackcomb Mountains are supportive of this NGO endeavour with consultation and respect of BC Parks master planning and referral process, as they are in a position to play a role providing transport of recreationists to reduce the long approach time through the coastal forest up to the sub-alpine and alpine zones. The Whistler Blackcomb lift systems provide access in winter and summer. In the winter season, access from the Blackcomb side is from the top of the Showcase T-Bar and from the Whistler side from the top of the Symphony Express Chair on the top of Piccolo summit. In the summer, lift assisted access is to the Roundhouse Lodge on Whistler Mountain or from the Rendezvous Lodge on Blackcomb.



VI. BASE AREA FACILITIES

The purpose of this section of the report is to outline the base facilities that are required to support the planned expansion of Whistler Mountain, as described in the Mountain Facilities section. Since the two mountains are connected via the PEAK 2 PEAK Gondola, many of the base facilities including accommodation, parking and skier services such as ticketing, rental and lockers will service skiers using either mountain.

.1 Valley Staging Overview

In the Development Analysis section, we outlined the potential for peak days with skier visits in the order of 35,500 to 39,300 skiers. As outlined in Table VI.1, approximately 12,940 skiers will be coming from accommodation within walking distance of the Creekside or Whistler Village bases. The remaining skiers will need to either drive and park, take public transit or be dropped off to get to the lifts.

		Developed Bed Units at Buildout					
	Hotel	ТА	Multi	Single	Resident		
	Hostel	Camp-	Family	Family	Restricted		Skiers
	Pension	ground		Duplex			
South of Creekside	344	946	2,286	3,360	2,312		3,400
Creekside	-	1,746	858	1,836	322		2,110
Between Creekside & Village	176	1,104	3,487	4,092	543		3,660
Whistler Village	3,869	585	392	_	-		3,320
Upper Village	1,674	3,491	3,317	288	946		5,160
Village North	1,390	889	1,831	-	29		2,350
North of Village North	1,092	521	3,051	11,904	2,592		6,620
Totals	Totals 8,545 9,282 15,222 21,480						26,620
Day Skiers from Outside Whistler - 20 to 25% of all skiers					7,099	to	9,933
Weekend & Destination Skiers on First Day of Trip - 5% to 7% of all skiers 1,775							2,740
Total Skiers					35,493	to	39,293

TABLE VI.1 WHISTLER BLACKCOMB PEAK DAY SKIER ORIGINS AT BUILDOUT

Skier Parking

Due to the large number of day skiers and skiers originating from accommodation beyond skier walking distance of a valley staging lift, skier parking



will continue to play an important role in ensuring an adequate supply of skiers to Whistler and Blackcomb Mountains. The location of the parking lots at build-out are illustrated in Figure 17 Valley Staging Lifts and Parking at Buildout and summarized in Table VI.2. Whistler Blackcomb currently controls and operates skier parking facilities at Creekside and on the Blackcomb Benchlands in Lots 6, 7 and 8. The Village Day Lots (P1 to P5) are owned by the RMOW and managed by Whistler Blackcomb on a year round basis. The plan also indicates new parking areas at Cheakamus, the South Base, Nordic and a reconfiguration of parking on the Blackcomb Benchlands.

The Creekside parkade contains 1,268 stalls for skiers, 6 charter bus stalls, drop-off areas for Whistler Kids and 164 stalls allocated as parking for the commercial businesses. The PEAK 2 PEAK gondola makes the Creekside parkade an attractive choice for day skiers arriving from south of Whistler. By uploading here, day skiers and skiers from accommodation south of Creekside avoid the most congested section of Highway #99 between Creekside and the Village. After the Olympics, a 125 stall parking lot (P11) was created by converting the land used for the finish and spectator area of the Alpine Skiing Venue on the timing flats above Whistler Creekside to parking. This lot is accessible from Nordic Drive and would be most convenient for skiers that originate from accommodation in the Nordic neighbourhood since they would not need to use the highway to get to parking. Skiers parking in this lot would need to have their own equipment and would ski down to Creekside to access the mountain. Use of the lot will be restricted to skiers originating within Nordic to avoid attracting external traffic to the neighbourhood.

There are approximately 1,500 existing parking stalls in the Lots 6, 7 and 8 and along the road on the Blackcomb Benchlands near Base II. Future reconfigurations of the facilities at Base II will continue to provide at least 1,500 parking stalls for skiers in the area. The exact location of these parking stalls will be determined during detailed design of the proposed recreational facilities and administration space planned for Base II. Provision of the 1,500 stalls will require the new Lot 9 and possibly a parking structure on Lot 7.

The RMOW acquired the Village Day Skier Lots 1 to 5 from the Province of British Columbia, prior to the 2010 Olympics. The purchase agreement with the Province requires that the primary use of these lots is day skier parking for the Whistler Blackcomb ski area. Whistler Blackcomb has the responsibility for management of the lots, including snow clearing and directing how the vehicles are parked. Lots 1 to 4 were landscaped and paved in 2009 for use as the Transportation Centre during the 2010 Olympic Winter Games. Lot 5 may also be paved in the future. In 2010, the RMOW introduced pay parking in Lots 1 to 3 as part of its overall Comprehensive Transportation Strategy. Lots 4 and 5 are intended to remain



as free parking for the foreseeable future. With all 5 lots paved, the Village lots would have a stated capacity of 2,079 stalls. On peak days when parking attendants are used to direct where people park and some of the circulation space is reduced, the total capacity can be increased to about 2,200 stalls.

Whistler Blackcomb has requested permission to use Crown Land on the south side of Cheakamus Road near the intersection with Highway #99 to construct a satellite park and ride lot for day skiers at the entrance to the resort, as shown on Figure 18. Most of this lot was cleared and graded for parking during the 2010 Olympic Games. This lot has an approximate capacity of 450 cars. Skiers parking at this lot will be bused to Whistler Creekside until the Cheakamus-South Base Gondola (Lift X) is installed in Phase 17. Also proposed in Phase 17 is a new South Base for Whistler Mountain. This base is located at the 1,010 metre elevation on a bench above the new Cheakamus Crossing neighbourhood. There is sufficient land at the South Base to provide accommodation, parking and skier services. For the purposes of this report, we have assumed parking for 2,000 cars can be constructed at the South Base, providing a total of 2,450 new day skier stalls at the south end of Whistler.

The capacity of the skier parking lots described above to provide skiers is estimated in Table VI.2. We have assumed that the average auto occupancy of cars in the pay parking lots will be higher than the free lots since pay parking tends to increase the average vehicle occupancy rates. Pay parking may also have the effect of reducing the number of non-skiers using the skier parking lots since there is a large supply of underutilized commercial pay parking under many of the village buildings that is more conveniently located for shopping than the skier lots. For the purpose of this report, we have not assumed any increases to the proportion of skier cars determined during the 1997 parking lots surveys. Given the assumptions outlined above, the designated skier parking lots can supply approximately 18,760 skiers. Therefore the proposed day skier parking supply should be adequate to meet the peak day parking demands at buildout.



TABLE VI.2 WHISTLER BLACKCOMB SKIERS FROM PARKING BUILDOUT

	Area	Number	Average	Percent	Skiers
	(ha.)	of	People	Skier	from
		Stalls	per Car	Cars	Parking
P12 Cheakamus Park n' Ride	1.37	450	2.5	100%	1,125
P13 - Whistler South Base	6.06	2,000	2.5	100%	5,000
Creekside					
P10 - Creekside Parkade		1,268	2.5	98%	3,107
P10 - Creekside Charter Bus		6	40.0	100%	240
P11 - Timing Flats Lot	0.57	125	2.5	100%	313
Sub-total Creekside		1,399			3,660
Village Day Skier Lots					
P1 - Lot 1	0.73	213	3.2	80%	545
P2 - Lot 2	0.86	257	3.2	80%	658
P3 - Lot 3	1.34	387	3.2	92%	1,139
P4 - Lot 4	2.25	742	2.5	90%	1,670
P5 - Lot 5	1.06	480	2.5	90%	1,080
Infill during peak periods		121	2.5	90%	272
Sub-total Village	6.24	2,200			5,364
Blackcomb Base II					
P6 - Lot 6	1.53	504	2.5	95%	1,198
P7 - Lot 7	1.44	475	2.5	98%	1,164
P8 - Lot 8	1.45	439	2.5	95%	1,043
P9 - Lot 9	0.25	82	2.5	100%	205
Sub-total Blackcomb	4.668	1,500			3,610
Total Skiers from Parking		7,549			18,759

NOTES:

1. New parking lots are shown in italics.

2. Occupancy rate of 3.2 people per car assumes pay parking.

3. Occupancy rate of 2.5 people per car assumes free parking.

Timing of Parking Lot Improvements

Whistler Blackcomb will continue to monitor the existing day skier parking supply and keep track of the number of occasions when the parking capacity is exceeded. There are opportunities to obtain higher skier yields from the existing parking supply by fine tuning pay parking strategies to achieve higher vehicle occupancy and skier participation rates. The future paving of Village Lot 5 may be part of this strategy. The satellite lots at the south end of Whistler would not be



constructed before these measures were explored. The provision of additional parking will be considered in relation to the installation of new out of valley staging lift capacity to ensure that the lift staging capacity at each location balances with the supply of skiers from accommodation, parking and transit and private vehicle drop-off during periods of peak visitation.

Whistler Blackcomb expects to start using the Timing Flats lot for overflow parking once the Creekside parkade is filling to capacity 16 days per season. Currently the Creekside parkade fills 3 to 5 days per season. Since skiers from the Cheakamus lot will initially be bused to Creekside, this lot would likely be brought on stream either when a second lift is built at Creekside or annual skier visits exceed 2.4 million skiers. Due to the requirement for busing, it would be prudent to only allow parking at the Cheakamus lot on weekends and holidays when large crowds are anticipated. The South Base parking areas will only be constructed when the South Base staging area, access chairlift (Lift Y) and beginner facilities are required.

Skiers dropped off by Transit and Other Vehicles

In addition to the skiers from parking lots and skiers from accommodation within walking distance of the lifts, skiers also arrive at the valley staging lifts by public transit, hotel shuttle and private vehicle drop-off. Data collected during the Lift Base Surveys carried out during the 1997 Whistler CTS suggested that between 5 and 20 percent of the people arriving at the lifts were dropped off. This component was highest at the Whistler Village lifts where there is a convenient bus and private vehicle drop-off, and lowest at Base II which requires a 10 minute drive up a winding road to reach. Since 1997, transit ridership in Whistler has increased. New hotels like the Four Seasons provide shuttle drop-off as part of their guest service. The redevelopment of Creekside included dedicated bus bays for Whistler Transit and intercity buses, as well as areas for private vehicle drop-off. For the purpose of estimating the base area staging capacity, we have assumed 10 percent of all skiers arriving at the Cheakamus-South Base gondola and the Creekside base and 20 percent of the skiers staging from the village are from transit or private vehicle dropoff.

Base Area Staging Capacity

Given the assumptions outlined above, the Whistler Blackcomb base area staging capacity on a peak day at buildout is approximately 37,500 skiers as outlined in Table VI.3. This number of skiers is at the middle of the range of forecasted peak day skier visits at build out. Additional parking, higher average auto occupancy or a greater use of private vehicle drop-off and public transit could all increase the theoretical base area staging capacity. Table VI.3 summarizes the base area staging



capacity at buildout. We have assumed that all the skiers from the Cheakamus Park n Ride lot would take the access gondola to South Base and stage from the South Base. This lift would also appeal to people living in the new Cheakamus Crossing neighbourhood. Skiers from the Central Village Zone include those skiers staging from Base II, the Blackcomb Base and Whistler Village. As mentioned previously, skiers may park at Base II and ski down to stage up Whistler Mountain via the Village Gondola or the Fitzsimmons Express. Conversely, skiers headed to Blackcomb might decide to park at Creekside and cross to Blackcomb via the PEAK 2 PEAK Gondola, therefore this table is showing the overall base staging capacity of Whistler Blackcomb combined.

TABLE VI.3
WHISTLER BLACKCOMB
BASE AREA STAGING CAPACITY
BUILDOUT

	Skiers from		Skiers from	Skiers	Total
	Accomm.		Cheakamus	from	Base
	in Skier	Skiers	Gondola	Other	Area
	Walking	From		Trans-	Staging
	Distance	Parking		portation	Capacity
Cheakamus Crossing	67	1,125		119	1,311
South Base		5,000	1,311		6,311
Creekside	2,110	3,660		641	6,411
Central Village Zone	10,830	8,972		4,951	24,753
Total	13,007	18,757	1,311	5,711	37,474

.2 Valley Staging Lift Requirements

The purpose of this section is to provide an understanding of the existing and proposed base area staging lifts which are envisioned to support the Whistler Mountain Ski Area operation. Throughout the Whistler valley, there are currently four skier staging areas; Whistler Creekside taking skiers to the south side of Whistler Mountain, the Village with lifts to Whistler and Blackcomb Mountains, the Blackcomb Benchlands/Upper Village with the Wizard Express taking skiers up Blackcomb and Base II on Blackcomb where skiers can take the second section of the Excalibur Gondola up Blackcomb or ski down to Whistler Village to go up Whistler Mountain.

The existing effective capacity of the valley staging lifts (2013/14 season) over a two hour staging period is 21,700 skiers, as outlined in Table V1.4. This is adequate to meet the average of the top 15 busiest days over the past ten seasons. On



the existing peak days in the 27,000 skier range, the staging period extends to 2.5 hours. To stage the additional skiers anticipated at build out of the resort, additional staging capacity will be required. Since Blackcomb Mountain has almost reached its limits for ski trail expansion, most of the future expansion of skier terrain at Whistler Blackcomb will take place on Whistler Mountain. Therefore, most of the increase in valley staging lifts should take skiers to Whistler Mountain, requiring additional staging lifts on Whistler Mountain.

	Effective	Effective	
	Lift Capacity	Staging Capacity	
	(pph)	2 Hours	2.5 Hours
Creekside Gondola	1,992	3,984	4,980
Whistler Village Gondola	2,244	4,488	5,610
Fitzsimmons Express	1,758	3,515	4,394
Sub-total Whistler Mtn.	5,994	11,987	14,984
Excalibur Gondola	2,340	4,680	5,850
Wizard Express	2,518	5,035	6,294
Sub-total Blackcomb Mtn.	4,858	9,715 12,	
Total Whistler Valley	10,851	21,702	27,128

TABLE VI.4 WHISTLER BLACKCOMB EXISTING VALLEY LIFT STAGING CAPACITIES

As outlined in the Mountain Facilities section, increased capacity out of Creekside is planned with the Lift L (Orange) or Lift W (Big Timber) gondolas. The Cheakamus to South Base gondola (Lift X) and the South Base gondola (Lift Y) will provide a new staging route up Whistler Mountain from Cheakamus Crossing that could be very attractive for day skiers arriving from south of Whistler and for residents of Cheakamus Crossing. Additional staging capacity up Whistler Mountain from the village, if needed, can be met by capacity increases to the Village Gondola and Fitzsimmons Express. For Blackcomb Mountain, an additional staging lift from Base II is planned. Future staging lift capacities if all of the new staging lifts were installed are summarized in Table VI.5. While it will not be necessary to build all of these lifts to their maximum capacities, the option to add any of these staging routes should be preserved so that any increases in out of the valley staging capacity can be located where it best ties in with the valley transportation systems.



	Effective	Effective	
	Lift Capacity	Staging (Capacity
	(pph)	2 Hours	2.5 Hours
South Base Gondola	2,720	5,440	6,800
Big Timber Gondola	2,280	4,560	5,700
Orange Gondola	1,980	3,960	4,950
Creekside Gondola	1,992	3,984	4,980
Whistler Village Gondola	2,660	5,320	6,650
Fitzsimmons Express	2,518	5,035	6,294
Sub-total Whistler Mtn.	14,150	28,299	35,374
Excalibur Gondola	2,340	4,680	5,850
Base II - Catskinner Express	2,385	4,770	5,963
Wizard Express	2,518	5,035	6,294
Sub-total Blackcomb Mtn.	7,243	14,485	18,106
Total Whistler Valley	21,392	42,784	53,480

TABLE VI.5 WHISTLER BLACKCOMB FUTURE VALLEY LIFT STAGING CAPACITIES

.3 Whistler South Base

The Whistler Mountain Master Plan accommodates an ultimate mountain carrying capacity of 29,800 skiers per day. In Phase 17, development of a new south base area to handle up to 6,000 skiers per day is proposed. While a detailed design for the South Base has yet to be completed, the planning team has identified approximately 23 hectares of gently sloping land suitable for base facility development on either side of Lift Y, the South Base access lift. The South Base area lies between the 985 and 1,040 metre elevations on Crown lands as illustrated in Figure 19, South Base Development. Development of the South Base will require construction of an access road from the Cheakamus Lake Road just east of the Function Junction intersection with Highway 99. Alignments for this road have been looked at on a preliminary basis and a potential alignment is illustrated in Figure 19.

The South Base area also includes terrain which may be suitable for the development of residential and commercial overnight accommodation in addition to parking and skier service facilities. It should be noted that commercial and residential development is not specifically proposed in this location at this time, as only generalized land use potential has been identified on large scale mapping. The planning team further recognizes that any development of the South Base area will require detailed site and environmental investigations, suitable land tenure



arrangements and a full review of community planning goals and objectives with the Resort Municipality of Whistler.

.4 Bed Unit Allocations

In 1982, Whistler Mountain Ski Corporation negotiated an agreement with the Government of the Province of British Columbia for the right to purchase Crown Land to build accommodation to support the ski area in exchange for the provision of additional recreational development in the form of upgrading and expansion of the ski area. Development rights were to be provided in the form of bed units (overnight accommodation for one person). The number of bed units to be allocated for expansion was 0.9 bed units per unit of SAOT (Skiers At One Time) as determined by the formula below:

SAOT = <u>Lift Supplied VTM / Day x Loading Efficiency</u> VTM Demand / Skier / Day

Lift Supplied VTM/Day	= Total VTM/hr. x 7.0 hrs/day
= Sum	(Vert. Drop x Hourly Capacity) x 7.0 hrs/day
Loading Efficiency	= 0.9
VTM Demand/Skier/Day	= 3,048 Vertical Metres (10,000 vertical feet)

The 2009 revision to Chapter II: Mountain Resorts of the Province's All Season Resort Guidelines provided a revised Bed Unit Calculation Model for Regional and Destination Mountain Resorts.

Bed Unit Eligibility = Associated Percentage x Balanced Resort Capacity (BRC)

For most mountain resorts where alpine skiing is the primary draw the BRC will be the Skier Carrying Capacity of the alpine ski operation. The calculation of SCC takes into account that some lifts are used as staging lifts, some lifts don't operate for the full day and the VTM Demand at each lift is a reflection of the skill class of the trails serviced by that lift. At Whistler Blackcomb, although there are a number of other activities that could be included in the calculation of Balanced Resort Capacity, the Bed Unit Eligibility based on only the alpine ski facility so far exceeds the Bed Units that have been allocated to the mountains by the RMOW under their growth management policies that adding the other activities to the calculation would be redundant.

The Associated Percentage is calculated by assigning point values based on the specific existing and proposed attributes of the Mountain Resort under consideration. The total points determine the appropriate ratio of bed units to BRC. Using the new point's allocation system, the appropriate ratio of bed units to BRC for Whistler



Mountain is 115% under existing conditions and 105% at buildout as determined in Table VI.6. The reason for the reduction is the overall increase in theoretical skier density resulting from the additional lifts in the Master Plan at buildout. These new lifts are required to provide the operator with some redundancy when weather conditions cause closure of portions of the mountain during the peak Christmas, President's Week and March break holiday periods.

The bed unit allocations for Whistler Mountain up to and including buildout, based on these two methods are summarized in Table VI.7. Under the formula contained in 1982 Development Agreement, Whistler Mountain will have earned 64,019 Bed Units at buildout. If the formula in the 2009 revision to the All Season Resort Guidelines is applied, Whistler Mountain's bed unit entitlement at buildout will be 31,217 Bed Units.



TABLE VI.6 WHISTLER MOUNTAIN

DETERMINATION OF ASSOCIATED PERCENTAGE FOR BED UNIT CALCULATION MODEL

		Existing	Buildout
II.7.1 .	1 SKI TERRAIN (Terrain Balance)	2	2
	1 - Over 35% of area either advanced or novice		
	2 - 25 to 35% of area either advanced or novice	Х	Х
	3 - Close to Ideal		
	4 - Ideal slope ratio		
H7 1	A VED A CE S VIED DENSITY (SVI TD A II A DEA (SCC in Shine and Harden)	2	1
п./.1.	2 AVERAGESKIER DENSTITI (SKI TRAIL AREA/SCC in Skiers per nectare)	3	1
	0 - > 40		
	1 - 30 to 40		X
	2 - 25 to 30		
	3 - 20 to 25	X	
HF 1	4 - 15 to 20	2	2
п.7.1.	0 loss than 1/2 hours	5	5
	$1 - \frac{1}{2}$ to 1 hours		
	2 - 1 to 1 1/2 hours		
	3 - 1 1/2 to 2 hours	X	x
	4 - 2 to 2 1/2 hours		
	5 - 2 1/2 to 3 hours		
	6 - greater than 3 hours		
II.7.1 .	4 ACCESS RELIABILITY	1	1
	 Highly reliable (main highway with short mountain road) 		
	2 - Somewhat unreliable (snow and avalanche closures)		
П.7.1.	5 POPULATION WITHIN 250 KILOMETERS	5	5
	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 +	X	X
Щ.7.1.	5 UNIQUE QUALITIES OTHER THAN SKIING	3	3
	1 - Nothing unusual.		
	2 - Regional attraction	v	v
Π.7.1.	7 ALL SFASON FACILITIES AT THE MOUNTAIN RESORT	4	4
	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,	Х	Х
	arena, hiking, lift serviced mountain biking, spa, beaches, water park, etc.)		
П.7.1.	8 POTENTIAL LENGTH OF SEASON (based on natural & manmade snow)	4	4
	0 - less than 100 days		
	1 - 100 to 115 days		
	2 - 115 to 130 days		
	3 - 130 to 150 days	v	v
Π71	4 - 150 days + 9 TVPE OF SNOW (Snow Conditions)	2	2
п./.1.	0. Dry less than 25% of season	2	2
	1 - Dry 25 to 50% of season		
	2 - Dry 50 to 75% of season	X	X
	3 - Dry 75 to 90% of season		
	4 - Dry over 90% of season		
II.7.1 .	10 WEATHER CONDITIONS (Hours of Bright Sunshine per Year) *	3	3
	1 - Less than 1,000 hours		
	2 - 1,000 to 1,500 hours		
	3 - 1,500 to 2,000 hours	Х	Х
	4 - Greater than 2,000 hours		
II.7.1 .	11 EXPRESS LIFTS	2	2
	0 - None		
	1 - Less Than 50% of aerial lifts	**	**
	2 - Greater Than 50% of aerial lifts	X 2	X 2
11.7.1.1	2 NEED FOR EMPLOYEE/RESIDENT RESTRICTED HOUSING	3	3
	0 - 0% of employee/resident restricted bed base provided for at resort		
	1 - 25% of employee/resident restricted bed base provided for at resort		
	2 - 50% of employee/resident restricted bed base provided for at resort	v	v
	4 - 100% of employee/resident restricted bed base provided for at resort	A	
Π7.1	13 FIRST NATIONS ECONOMIC PARTICIPATION IN RESORT DEVELOPMENT	2	2
	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 activites		
	2 - First Nation businesses are given opportunity to bid on resort related contracts	Х	Х
	 Proponent provides First Nation employment opportunities 		
	 Proponent provides First Nation training opportunities 		
	3 - Proponent provides joint venture economic opportunities with the First Nations		
	 Aboriginal ecotourisme is an integral part of the resort tourism activities 		
	 Proponent provides First Nations employment opportunities 		
	Proponent provides First Nation training opportunities		
	4 - First Nations equity partnership		
	- Abonginal ecolourisme is an integral part of the resort tourism activities		
	- Proponent provides First Nations employment opportunities		
TOT	I DONTE	27	25
ASSO	ICIA TED PERCENTACE OF RED I NITS TO RALANCED RESORT CAPACIEV	115%	35 105%



TABLE VI.7 WHISTLER MOUNTAIN BED UNIT ALLOCATIONS BASED ON BC PROVINCIAL GOVERNMENT POLICIES

				2009 All Season		
	1982	Developm	Resort Guidelines			
			Bed	Cumulative		Bed
		SAOT	Units	Bed		Unit
	CLOT		D 1	T T •4	aaa	T110 11 1114
	SAUI	Added	Earned	Units	SCC	Eligibility
Prior to 1982	SAU1 11,953	Added	Earned	Units 3,537	SCC	Eligibility
Prior to 1982 2013 Existing	5A01 11,953 29,902	Added 17,949	16,154	3,537 19,691	SCC 17,990	20,689

Notwithstanding the above, during the 1980's the Resort Municipality of Whistler undertook a comprehensive planning process and established limits for growth within its boundaries. The limit for the growth established in the 1989 Official Community Plan (OCP) was defined as the number of bed units that would be contained within the community at the resort's "buildout". This limitation on development has been reflected in subsequent versions of the OCP, although the development cap has increased for specific projects. During the process of establishing a bed unit limit for buildout, the RMOW assigned all of the available bed units to lands located within the municipality that were deemed to have development potential. As part of this process, 7,500 bed units were allocated to lands either owned or under option by Whistler Mountain Ski Corporation. Of the 7,500 bed units assigned to Whistler Mountain by the RMOW, 7,466 have been assigned to development sites within Whistler as outlined in Table VI.8, leaving 34 bed units unallocated. Of the 7,466 allocated bed units, 7,013 have been developed leaving a balance of 453 additional undeveloped bed units. Therefore Whistler Mountain has a total of 487 bed units remaining in the Whistler Mountain inventory of RMOW bed units.



TABLE VI-8
RMOW BED UNIT ASSIGNMENT TO WHISTLER MOUNTAIN
SUMMARY OF UTILIZATION

	Private	Public	Total	Used	Remaining
				on Site	
Bed Units Approved by RMOW	4,290	3,210	7,500		
Bed Units Utilized to Date					
Trade for Lower Parking Lot	622	623	1,245	1,245	-
Blueberry Hill	842	842	1,684	1,684	-
Snowridge	356		356	356	-
Option Site 1 - Bear Creek	282		282	282	-
Option Site 5 - Alta Vista Pointe	336		336	336	-
Wolverine Crescent	42		42	42	-
Whistler Heights - Taluswood	1,006		1,006	816	190
Waterslide Project		190	190	190	-
Golden Properties (Blueberry) - expired		40	40	40	-
Additional Allocation for Trion		18	18	18	-
Allocated to Horstman House at Blackcomb		13	13	13	-
Allocated to Blackcomb Lot E - Four Seasons		179	179	179	-
Allocated to Blackcomb Lot 5 - Four Seasons Residences		381	381	148	233
Whistler Creek Base (First Tracks, Legends, Evolution)		890	890	860	30
Option Site 2 - Kadenwood	360		360	360	-
Option Site 14 - Spring Creek	444		444	444	-
Total Bed Units Allocated To Date	4,290	3,176	7,466	7,013	453
Unallocated Bed Units		34	34		34
Total Whistler Mountain RMOW Bed Units Remaining					487

.5 Potential Base Area Development Sites

As outlined in the previous section, under the 1982 Agreement between Whistler Mountain and the Province of British Columbia, Whistler Mountain is entitled to purchase Crown land for base area development. The purpose of this section is to briefly describe the development potential of various "Option Sites" for future base area development. Most of these Option Sites have been identified in previous versions of the Whistler Mountain Master Plans. The Option Sites are illustrated graphically in Figure 20.

Option Site 1

Option Site 1 is a 7.3 ha. parcel which was identified in the 1982 Whistler Mountain Ski Area Plan and again in the 1991 Whistler Mountain Master Plan. Site 1 is situated adjacent to the existing Northern Lights Development above Whistler Village.



Option Site 2

Option Site 2 is a 5.3 ha. parcel which sits above the existing Brio Subdivision. This site was first identified in the 1991 Whistler Mountain Master Plan.

Option Site 3

Option Site 3 is a 5.5 ha. parcel which sits to the south of Option Site 3 above the existing Brio Subdivision. This site was first identified in the 1991 Whistler Mountain Master Plan.

Option Site 4

Option Site 4 was identified as a base area development site in the 1991 Whistler Mountain Master Plan. It is a 46+/- ha. site at the 975 metre to 1050 metre level surrounding the proposed new South Base and beginner area. This site is proposed for the new day skier base and would accommodate parking, day skier and commercial facilities and also has the potential for the development of overnight accommodation.

Option Site 5

Option Site 5 is a 35.3 ha. parcel located at the 850 metre elevation above Alpha Creek that was identified for base area development in the 1991 Whistler Mountain Master Plan. Access would be from the new South Base access road originating at the Function Junction intersection.

Option Site 6

Option Site 12 is located immediately to the west of the Option Site 6. It was identified as potential for base area development in the 1991 Whistler Mountain Master Plan. It covers approximately 85 hectares.

Option Site 7

Option Site 7 is a 7.2 ha. parcel which is located southeast of Highway 99 above the Cheakamus Lake Road. This site was first identified in the 1991 Whistler Mountain Master Plan. When the South Base is required, this site would be at the entrance to the access road to the new base and could potentially be developed to provide base area accommodation.



VII. ENVIRONMENTAL

.1 Introduction

During the 1990's the management teams of Whistler and Blackcomb Mountains began to take a more active role in the environmental stewardship of the terrain within their CRAs. In the last ten years, they have received numerous awards for their environmental and energy conservation practices. Moving forward with the implementation of this Master Plan, WhistlerBlackcomb will continue to meet or exceed all Provincial Environmental Policies and work closely with the Ministry of the Environment and other agencies to conduct all environmental studies that may be required.

.2 Overview of Current Environmental Practices

Whistler Blackcomb has a sustainability policy and produces an annual sustainability report. One of five key result areas in the policy is Mountain ecosystems. Whistler Blackcomb is striving for continuous improvement in land stewardship through the following efforts:

- Adherence with the Forest Act administered by the Ministry of Tourism, Culture and the Arts.
- Developing and following Guidelines of Best Practices established by the Canada West Ski Area Association (CWSAA) and the National Ski Area Association (NSAA). Whistler Blackcomb is a member of both of these associations.
- Developing and following the Guidelines of Best Practices of the BC Tourism Sustainability Collective. The Collective represents the six leading BC tourism companies of which Whistler Blackcomb is a member.
- Early adopter and partner of the Resort Municipality of Whistler 2020 Sustainability Plan which includes guidelines for Natural Areas.
- Whistler Blackcomb also has its own internal land use planning and standard operating procedures for mountain construction that may exceed the standards of care in the guidelines referred to above.



.3 Sustainability Policy for Whistler Blackcomb

Whistler Blackcomb has developed its own Sustainability Policy which is provided in this section of the report. Whistler Blackcomb carries out its operations in accordance with this policy.

Who We Are

To be the #1 mountain resort in the world, we must be the most sustainable. We are passionate mountain enthusiasts who feel a deep connection with nature. Our purpose is to create the best mountain memories in the world. We provide the link between recreation and the natural mountain environment.

Our Commitment to Sustainability

We began our journey towards sustainability in 1993, before environmental planning was on the radar for most companies. We have moved far beyond compliance to become an industry leader, receiving 19 Provincial, North American and International awards. Just as we evolved from compliance to leadership, the time has come to evolve once more by incorporating sustainability planning into all aspects of our business. Our goal is to reduce our ecological impacts while increasing the positive impact we have on people and communities.

Key Result Areas

Climate change is the single largest threat to the environmental, social and economic health of our planet. The impacts of climate change affect the health of our mountain ecosystems. By reducing our contribution to climate change and protecting our ecosystems, we will be a model for action toward sustainability. We see Whistler Blackcomb as a small community within the larger community and will work to build positive and supportive relationships both locally and globally. We will focus our sustainability efforts through the following 5 Key Result Areas.

Energy

- 1. We will minimize our consumption of fuel and electricity through behavioral changes, retrofits, and the use of new technologies in our purchasing and construction activities.
- 2. We will seek out clean technologies, fuels and renewable energy sources to meet our energy demands.
- 3. We will reduce our carbon footprint and assist in guest and resort community reductions.



.4 Mountain Ecosystems

- 4. We will continue to move beyond mitigation to take a restorative role with our mountain ecosystems.
- 5. By following a restorative model and improving our operating procedures and design, we will improve ecosystem vitality.
- 6. We will identify and protect special places.
- 7. We will respect and encourage the relationship between the experiences of our guests and the health of our mountain ecosystems.



Symphony Bowl Gladed Trail System



Waste

- 8. Through responsible purchasing, reuse and recycling, we will strive for zero waste.
- 9. We will integrate new opportunities and innovative waste solutions into our current systems.
- 10. We will model nature as a waste-free system.

Awareness and Education

- 11. We will expand nature-based tourism experiences.
- 12. We will improve awareness and education on sustainability issues through internal and external communication.
- 13. We will inspire others to be more sustainable in their activities and lifestyles.
- 14. We will communicate our successes and failures and promote our programs for the purpose of learning.

Social

- 15. We will actively contribute to the health and welfare of our employees.
- 16. We will foster positive and supportive relationships with community stakeholders.
- 17. We will work to provide for those in need both locally and globally.

By structuring a strategic plan for improving our sustainability performance and involving members at all levels of our organization and our community, we will strive for continuous improvement in our operations. Never has there been a greater sense of urgency to act.

.5 Whistler Blackcomb Sustainability Report 2010

In 2010, Whistler Blackcomb prepared a report outlining their sustainability practices and the steps they have to taken to develop an environmentally responsible operation. This report entitled "Whistler Blackcomb Sustainability Report 2010 – Our Olympic Year" also highlighted a few recent projects that will have a significant impact on the resorts ongoing operations. Whistler Blackcomb intends to prepare this type of report on an annual basis as they implement more energy saving measures and monitoring tools.



Fitzsimmons Creek Renewable Energy Project

The Fitzsimmons project is an Independent Power Project located in Fitzsimmons Creek within Blackcomb Mountain's CRA. The Fitzsimmons IPP is a run of the river project with a 7.9 MW power generating station. The power station has an estimated yearly energy output of 33 Gigawatt Hours, enough energy to operate Whistler-Blackcomb or to power 3,000 homes on an annual basis. Originally envisioned by Whistler Blackcomb over eight years ago as an opportunity to offset its power consumption, the project was developed by a joint venture between Innergex Renewable Energy Inc. and Ledcor Construction. Although Whistler Blackcomb is not financially involved in the project, they were heavily involved in the planning process and it was their continued support that enabled the project to proceed despite the complication of it being located in close proximity to the bobsleigh/luge track that needed to be constructed for the Whistler Sliding Centre Venue.

The environmental impacts of the installation were minimal as over 70% of the project was built under the existing footprints of a mountain access road and a snowmaking intake pond. No new powerlines were required because the powerhouse was located within 300 m of the existing electrical grid. Water will flow from the power generating station into the Fitzsimmons snowmaking intake pond. Construction commenced in 2008 and the power plant began producing power in January 2010.

Energy Management

In 2009, Whistler Blackcomb installed 19 new power consumption meters to improve the management of power used by the ski area. They partnered with BC Hydro to carry out an Energy Management Assessment. Information gathered from the assessment was used to draft a Sustainable Energy Management Plan that identified 5 main priorities to reduce energy consumption in the following year. An Energy Manager facilitates these actions and reports progress to BC Hydro and the senior management team on a quarterly basis. To date as part of the Power Smart Partner Program, Whistler Blackcomb has carried out retrofits that save more than 4,575,000 kwh of electricity per year, representing about 15% of their annual consumption.



Food Waste Composting

Whistler Blackcomb implemented food waste composting in all of its mountain restaurants for the 2008/2009 ski season. By partnering with Coca Cola and Seattle's Best Coffee, they replaced paper cups with reusable cups in all the facilities. They have ramped up the existing recycling program and increased the use of reusable dishes and cutlery. These changes have led to a diversion of over 800 tonnes of waste from the landfill and have resulted in cost savings of \$57,000 in waste disposal fees.

.6 Identification of Sensitive Areas Within the Controlled Recreation Area

Whistler Blackcomb is comprised of six defined watersheds with no special management designations. In 1997, in consultation with the Ministry of Forests and the Ministry of Environment, a comprehensive watershed assessment was completed of the Whistler Mountain and Blackcomb Mountain CRAs. This watershed assessment examined natural processes and evaluated the cumulative effects of forest practices on the stream systems draining the area. The results of this investigation indicate the sensitivity of the watersheds to development, provide guidance for any further development and as necessary, watershed restoration activities.

With respect to restoration, a program called Operation Green-up was initiated in 1999. One and a half million dollars was allocated to improving the ecological conditions of the watersheds within the Whistler and Blackcomb Mountain CRAs. The comprehensive watershed assessment was used to identify and prioritize the projects.





Symphony Bowl Interpretive Signage

.7 Whistler Blackcomb – RMOW Cheakamus Community Forest & Protected Areas Network Memorandum's of Understanding

In April 2009 the Resort Municipality of Whistler (RMOW) and the Squamish Nation and Lil'wat Nations signed a 25-year tenure license with the Province of British Columbia for the 30,260 hectares of forestland surrounding Whistler. Representatives from each of the partners sit on the Cheakamus Community Forest (CCF) Society Board, who oversee planning, public consultation and management of forest operations. The opportunity to participate in the community forest program arose when the Ministry of Forests and Range announced that the timber harvest volume for the area around Whistler would become available for a new tenure, or license, holder. The CCF partners felt strongly that it would be more beneficial to the communities for the tenure to be held here rather than by a private timber harvesting company from elsewhere. The natural beauty of the area is a strong draw for tourism, and the CCF Society has those values at the top of mind when planning community forest operations.



The Cheakamus Community Forest overlaps land within the Controlled Recreational Areas (CRA's) of Whistler and Blackcomb Mountains. In a spirit of cooperation based on shared sustainability and ecological values, Whistler Blackcomb supports the CCF. In turn, the RMOW as a partner in the CCF supports Whistler Blackcomb's right to manage the land base within its CRA according to the Whistler Mountain Master Plan and the Blackcomb Mountain Master Plan under the jurisdiction of the Province of British Columbia. Accordingly Whistler Blackcomb and the RMOW have prepared a Memorandum of Understanding (MOU) to define the relationship between Whistler Blackcomb and the RMOW with respect to the CCF lands that are within the CRA's of the two mountains. The parties will cooperate in wildfire management across the land base, adaptively manage the land base for climate change impacts and will cooperate in ecosystem based management and planning for the land base. However, the RMOW agrees that the CRA planning and approval process remains under the jurisdiction of the Province of British Columbia.

The Protected Areas Network ("**PAN**") Strategy is a land use policy of the RMOW designed to protect critical natural areas within the RMOW and their ecological connectivity to ensure that future development and land use are located on the most suitable lands and subject to ecologically responsible planning, design, construction and management. Whistler Blackcomb and the RMOW are preparing a Memorandum of Understand with respect to the applicability of the PAN strategy to land within the CRA's of Whistler and Blackcomb Mountains. In a spirit of cooperation based on shared sustainability and ecological values, Whistler Blackcomb supports the RMOW's PAN Strategy.

The RMOW acknowledges that the PAN is non-binding with respect to land use development within the CRA because the CRA is provincial Crown land. However, Whistler Blackcomb will endeavour to incorporate PAN whenever possible in future projects within the CRA.

.8 Whistler Interpretive Forest MOU

The Whistler Mountain CRA overlaps a portion of the Whistler Interpretive Forest (WIF) on the south side of Whistler Mountain above the Cheakamus River. In 2000, a Memorandum of Understanding (MOU) regarding the use and management of Crown land within a portion of the WIF was established between the Ministry of Forests, British Columbia Assets and Land Corporation and Whistler Mountain. The approximately 121 hectares (300 acres) of Crown land covered by this agreement was thereafter called the Whistler Interpretive Forest Agreement Area (WIFAA) and was then designated as part of Whistler Mountain's CRA. The agreement ensured that any non forest development in the area would focus on alpine skiing and related uses by the Prime Recreation Operator (Whistler Mountain).



.9 Overview of Archaeological Studies

In 1997, the Ministry of Forests (Squamish District) completed an archaeological overview assessment of the Whistler and Blackcomb Mountain Controlled Recreation Areas. Within the CRA, two areas were identified as having the potential of containing culturally modified trees and two other areas were identified as having the potential for evidence of previous habitation. These areas were assessed in greater detail and no evidence of either culturally modified trees or previous habitation was found. In 1999, an archaeological field reconnaissance of the area proposed for the Spring Creek development was conducted by a registered archaeologist on behalf on Intrawest, the Squamish First Nation and the Lil'wat First Nation. No evidence of archaeological sites including culturally modified trees was found. In 2000, the Xay Temixw - Squamish Nation Traditional Territory Forest and Wilderness Land use Study (2001) was completed and no indication of sensitive areas was found within either mountain's CRA. An archaeological field investigation of the site for the Kadenwood Gondola and a new water reservoir was conducted in June 2008 by representatives of the Lil'wat Nation. Again no evidence of archaeological potential was found. In over forty years of working within the Whistler Mountain CRA, no artifacts or culturally modified trees have been found by Whistler personnel.