

Sea to Sky Mountain Biking Economic Impact Study

Whistler Report



Western Canada
Mountain Bike Tourism Association
c/o 2654 Eton Street, Vancouver, BC, Canada V5K 1K1
Web: www.mbta.ca
Email: info@mbta.ca



Executive Summary

Whistler has long been known as one of the premier North American ski destinations, but increasingly, the Resort is becoming one of the top summer destinations as well, particularly for mountain biking. In addition to the Whistler Bike Park, the Whistler Valley has an officially authorized trail system and plays host to the Crankworx mountain bike festival, a nine day spectator oriented event running at the end of July each year. As a result of visitor spending in the Resort, mountain biking in Whistler generates considerable economic activity over the summer months. However, quantifiable data was needed to demonstrate the value of the trails to further encourage investment in infrastructure, and establish appropriate trail management policies. To meet these objectives, the Western Canada Mountain Bike Tourism Association (MBTA) conducted a pilot study to measure the economic impact of mountain biking in the Sea to Sky Corridor which, in addition to Whistler, includes the communities of Squamish and the North Shore (North Vancouver and West Vancouver).

Total visitor spending in Whistler attributable to mountain biking exceeded \$34.3 million over the period June 4 to September 17, 2006 supporting an estimated \$39.1 million in new economic activity (GDP).

The Whistler municipal trail system demonstrates the potential benefit of mountain biking in the Sea to Sky corridor, with visitor spending attributable to the Whistler Valley Trail system totaling just over \$6.6 million, this accounts for nearly two-thirds of the total generated from local trails in the Sea to Sky study communities (note figure excludes Whistler Bike Park and Crankworx spending).

In addition to the trail systems, the study also measured spending by visiting riders at the Whistler Bike Park (WBP) and spectators at the Crankworx festival. The WBP, the most visited mountain bike park in North America, is a considerable source of revenue for both Whistler and the Province of BC. Non-resident visitors to the WBP spent an estimated \$16.2 million in Whistler during the study period. Finally, the Crankworx Mountain Bike Festival continues to grow, attracting 55,000 unique visitors to the 2006 event (of these, more than 23,000 travelled to Whistler solely to attend the Festival). Crankworx generated non-resident expenditures in excess of \$11.5 million. In total, visitor expenditures in Whistler attributable to mountain biking totaled in excess of \$34.3 million during the 3 month study period.

The authorized trail system in the Whistler Valley generates considerably more economic activity than the trail systems in Squamish and the North Shore where few authorized trails exist. Whistler has been able to capture higher visitor expenditure in part by having the ability to promote its municipal trails and associated services (bike rentals, guides, camps, etc) directly to visitors both within the Resort and externally.

Although one might draw the conclusion that the lift accessed Whistler Bike Park draws most riders to Whistler, the survey showed that just over half of the Whistler Valley riders indicated cycling was an important trip motivator (i.e. 52% gave cycling a 4 or 5 on a 1 to 5 scale of importance where 5



represents cycling being the primary reason for taking the trip), illustrating the importance of the municipal trail system. Furthermore, the survey found that there was less than 10% cross over between Whistler Bike Park riders and those on the Whistler Valley Trails reinforcing the notion that the Valley Trails were a significant stand alone draw.



Table of Contents

1.0 Introduction	5
2.0 Methodology	6
3.0 Trail Users Surveys.....	9
4.0 Crankworx.....	19
5.0 Economic Impact Results	23
Appendices.....	24

Cover Image: Comfortably Numb, Whistler, B.C. Photo: Pat Mulrooney



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For more information on this study, please contact:

Donna Green, Martin Littlejohn, Jimmy Young,
Directors, Western Canada Mountain Bike Tourism Association
Email: info@mbta.ca

Tony Fisher
Principal, Paradigm Consulting Group
Senior Research Consultant, Canadian Sport Tourism Alliance
Email: paradigm.consulting@rogers.com



1.0 Introduction

The Sea to Sky Corridor, situated on BC's southwest coast, running from North and West Vancouver through Squamish, to Whistler, features some of North America's most challenging and diverse terrain for all types of mountain biking. Trails on 'the Shore' are challenging for even the most experienced freeriders, while Squamish has a multitude of trails for epic cross-country rides as well as freeride trails. Whistler features both cross-country trails throughout the Whistler Valley and the Whistler Bike Park with 44 lift accessed downhill trails for all skill levels. A number of mountain bike oriented events also take place in the Sea to Sky corridor, including the participant-based Test of Metal cross-country race in Squamish (June) and the spectator-based Crankworx Freeride Mountain Bike Festival in Whistler (July).

Mountain biking on trail systems in the Sea to Sky Corridor provides a considerable benefit to host communities. For local residents, the trails provide a venue to participate in an active, healthy lifestyle, and can be an important motivator for living in the area. Moreover, the trails are an attraction for residents of both neighbouring and out of town areas to visit the communities, thereby providing support for local businesses and increasing the economic activity for the region.

The Sea to Sky Mountain Biking Economic Impact Study aims to quantify the economic impact of mountain biking in the Sea to Sky Corridor, and thus has several components. The largest of these involved collecting spending data directly from mountain bikers while they were on the trails in the three communities; the North Shore (made up of West and North Vancouver), Squamish and Whistler. An additional component of the survey program saw data being collected from spectators and participants at the Test of Metal race in Squamish and spectators at Crankworx in Whistler. Finally, in order to further corroborate the findings of the surveys, supplemental data from bike stores on the North Shore and Squamish was collected in order to understand intra-regional mountain biking related spending.

This document focuses exclusively on providing in-depth detail on the findings for Whistler (for findings related to the entire corridor see the Sea to Sky Mountain Biking Economic Study – Overall Results Report). The methodology used to collect expenditure data from respondents, as well as a brief description of the economic impact model are contained within the next section, with section 3 providing an in-depth description of the survey results from the Whistler Valley trail system and the Whistler Bike Park. Subsequently, section 4 presents the survey result from the Crankworx Freeride Mountain Bike Festival, and section 5 provides the economic impact results. An overview of the MBTA, the survey stint schedule, a more detailed description of the STEAM Pro economic impact model and a glossary of the terms used are found in appendices 1-4.



2.0 Methodology

The mountain biking survey was launched on June 24, 2006 in Whistler, with all surveys being finished by September 17, 2006. A team of 5 surveyors were hired in the community to conduct interviews with mountain bikers, and the surveys took place at 4 popular trail access points as well as the Whistler Bike Park. Over the course of the summer, some of the survey locations in Whistler shifted due to low visitor volumes, as noted in Table 2.1. The surveyors used hand held computers (Palm PDAs equipped with Techneos Entryware survey software) to record the data which was then uploaded over the Internet to a central server for compilation and assessment.

The survey methodology and interviewing schedule was designed using the *Guidelines for Measuring Tourism Economic Impact at Ungated or Open Access Events and Festivals*¹ as a general set of guiding principles. In particular, the guidelines were closely followed in developing a stratified random sampling plan. A list was prepared that included all possible survey shifts including morning and afternoon shifts for each day at all of the locations for both weekdays and weekends. Shifts were then selected at random from the weekday and weekend list to reach a total of 47 stints. The stints were then balanced to ensure an appropriate mix between the different locations in Whistler, as well as the month, day of the week, and time of day of surveying.

Table 2.1 Whistler Survey Locations

	Whistler
Survey Locations	Lost Lakes Trailhead
	Whistler Bike Park
	Wedge Mountain Parking Lot
	Emerald (switched to Function Junction in July)
	Rainbow Parking Lot

Surveyor turnover was a challenge in conducting the project in Whistler where an abundance of part-time employment opportunities created issues around scheduling shifts and maintaining commitment to the project.

¹ Available on-line at: <http://www.tourism.gov.on.ca/english/tourdiv/research/resources.htm>



2.1 Survey Sample

Table 2.2 shows the breakdown of the Whistler sample. The results are broken out by the interview location as there is very little overlap between riders on the Whistler Valley Trails and in the Bike Park. A total of 400 riding parties² were intercepted on the Whistler Valley Trails (220) and at the Bike Park (180), of which 92 (22.9%) declined to participate and a further 2 (0.5%) of riding parties were composed of riders who had all been previously intercepted. This left a total of 306 valid surveys collected over the 11 week period.

These riding parties were then categorized as to whether they were residents of the area (23% of the sample), non residents (68%), or a mixed party comprised of resident and non resident riders (8%). **Note that minimal information was gathered from residents as their spending does not represent “new” money into the community.** For the purposes of this study, the definition of non-resident for same day riders was having traveled a distance of more than 40km, one-way from the primary residence to the start of the ride (in addition, same-day riders from Squamish or Pemberton who also work in Whistler were treated as Whistler residents). For overnight visitors, there was no minimum distance threshold other than staying overnight away from the respondent's primary residence, and the overall length of stay in the community was less than 30 days (Table 2.2).

Table 2.2: Number of Responses & Rider Origin

	Whistler Total	Whistler Valley Trails	Bike Park
Riding Parties Intercepts	400	220	180
Agreed to Survey	308	170	138
Previously surveyed	2	2	0
Total surveyed	306	168	138
Rider Origin			
Resident	23%	34%	13%
Non resident	68%	57%	80%
Mixed	8%	9%	7%

² A riding party was defined as the group of riders that agreed to ride together prior to the start of the day's ride (i.e. they did not meet up on the trail)



2.2 Rider Volumes

A key component of the study was determining the number of riders who used the trail systems in Whistler. Estimates of the average weekly use of the trails were devised by analyzing the average number of riders that passed the surveyors. Because of the randomization of the survey stint schedule, shifts were spread throughout the week, occurring during the mornings, afternoons and early evenings at each of the locations. As a result, we were able to estimate the average number of riders who used the trails on a typical weekday and typical weekend by counting the number of riders who participated in the survey and the number of riders who passed the surveyors when they were engaged with survey respondents. Essentially, the surveyors counted the number of riders who went past them during their shift, and these numbers were then used to provide the estimated number of riders per week.

As surveyors were not able to count the number of riders that went by them in the Whistler Bike Park, volumes for the park are based on visitor totals provided by Whistler Blackcomb. This data was then used in combination with survey response information to work out the number of times riders went to the Bike Park per trip.

Table 2.3: Intercepts and Riders per week – Whistler

Location	Estimated Total number of riders (June 24 - September 15)	Estimated Riders per Week
Rainbow Parking Lot	4,590	306
Comfortably Numb	3,630	242
Function Junction	2,175	145
Lost Lake Trailhead	15,315	1,021
Bike Park**	76,671	5,111
Total (Valley Trails)	25,695	1,713

*Number of intercepts (riding parties) per location multiplied by number of riders per party

** Whistler Bike Park riders per week is average of total estimated visitors provided by the WBP



3.0 Trail Users Surveys

A great deal of information was gathered from mountain bikers participating in the trail users survey. The results presented in the following section are broken out by interview location as there is very little overlap between riders on the Whistler Valley Trails and in the Bike Park.

3.1 Party Characteristics

The party size at both the Whistler Valley trails and the Bike Park locations was comparable, with an overall average of 3.0 riders per group (Table 3.1). The vast majority of respondents were staying overnight in Whistler (90%).

Three quarters of survey participants were under the age of 40. The most common age group of riders was the 30-39 category; however riders in Whistler tended to be younger than those on the North Shore and Squamish. A large majority of the riders intercepted were male, particularly in the Bike Park.

Table 3.1: Non-Resident Riding Party Characteristics

	Total (n=306)	Whistler Valley Trails (n=168)	Whistler Bike Park (n=138)
Avg. Party Size	3.0	2.9	3.3
% on a day trip	10%	10%	11%
% staying overnight	90%	90%	89%
Age Profile			
18 and Under	14%	18%	10%
19-29	24%	21%	27%
30-39	37%	31%	42%
40-49	18%	19%	17%
50-59	5%	8%	3%
60-69	2%	3%	1%
70 and over	0%	0%	0%
Gender			
Male	70%	67%	74%
Female	29%	33%	26%



3.2 Rider Origin

All non-resident riders were asked to specify their primary residence. Whistler, as expected, had the broadest origin of riders of the three communities, with 59% of respondents residing outside of Canada.

US residents accounted for 37% of respondents. Top U.S. markets for the Bike Park included Washington (29% of U.S. riders), California (24%) and other short-haul U.S. markets (15%, includes Colorado, Idaho, Montana, Oregon), with other riders coming from a wide variety of long-haul markets ranging from Hawaii to Florida. For the Whistler Valley trails, the top two markets were also Washington (44%) and California (25%).

Outside of North America, the U.K. was the top international market at the Bike Park, with nearly 40% of the 23 international riding parties, followed by Switzerland at 21% and a variety of others including Australia, Germany, Japan, and France. On the Valley trails, the U.K. was also the most common overseas market.

Table 3.2: Origin of Non-Resident Riders

	Total	Whistler Valley Trails	Whistler Bike Park
Greater Vancouver	23%	27%	19%
Sea to Sky Corridor	2%	3%	0%
Other BC	11%	8%	13%
Other Canada	10%	9%	10%
U.S.	37%	33%	40%
Overseas	22%	22%	23%

*Note that multiple responses were allowed to accommodate parties of mixed origins, thus the totals sum to more than 100%



3.3 Non Resident Spending in Whistler

Non-resident riders were asked about their spending while in Whistler. As noted earlier, 90% of survey respondents were an overnight trip to Whistler, which results in considerable spending in the area. Table 3.3 shows reported spending by riding party broken down into broad categories. Total per trip expenditures varied considerably between Whistler Valley trail visitors and Whistler Bike Park visitors. While expenditures directly related to the Bike Park itself were part of the reason for the higher WBP expenditures, trail riders did have higher trip expenditures on accommodation due in part to the higher frequency of use of hotels/motels compared to WBP riders (see Table 3.6).

Table 3.3: Riding Party Expenditures in Whistler – per party, per trip

Location Type of trip (num of resp.)	Whistler Valley Trails		Whistler Bike Park	
	Sameday (10)*	Overnight (92)	Sameday (13)**	Overnight (103)
Accommodation	\$0.00	\$629.57	\$0.00	\$576.14
Restaurant / Pub / Night Club	\$38.00	\$333.73	\$170.00	\$566.45
Groceries / Other F&B	\$3.50	\$105.08	\$0.00	\$153.44
Bike Park	\$0.00	\$0.00	\$230.38	\$384.33
Rec & Entertainment	\$0.00	\$81.97	\$0.00	\$72.85
Bike Shop	\$167.50	\$58.81	\$26.54	\$180.16
Other Shopping	\$30.00	\$116.26	\$8.08	\$78.72
Own Vehicle expenses	\$18.60	\$32.76	\$6.92	\$32.93
Rental Vehicle	\$0.00	\$36.07	\$0.00	\$57.39
Local Transport	\$7.00	\$2.32	\$0.00	\$9.30
Other Spending	\$0.00	\$16.37	\$0.00	\$47.02
Total per party	\$234.60	\$1,296.70	\$433.85	\$2,080.01
<i>Avg. Party Size</i>	2.8	3.1	4.4	3.2
<i>Avg. Nights</i>		4.5		5.0
<i>Avg. Spend per person per day</i>	\$83.79	\$93.48	\$98.95	\$133.13

*Caution: small sample size

**WBP Sameday expenditures featured some very large party sizes distributed over a relatively small sample size



The data in Table 3.4 shows that non resident mountain bikers spending at least one night in Whistler spend an average of \$121.78 per person per night while staying in the community. This may seem lower than expected, but the travel party size must be taken into consideration. The average mountain biking party size ranges from 3 to 4 people, many of whom are likely sharing accommodation. Shared accommodation will reduce the daily per person expenditure considerably. Also, summer room rates in Whistler are reasonable, especially for larger accommodation units. Finally, while Overseas visitors had the lowest average daily expenditure, they also had the longest length of stay in Whistler, averaging just over 7 nights; consequently total spending per party was quite high at over \$2,400 per party.

Table 3.4: Average Spending in Whistler per Overnight Visitor Based on Rider Origin

	Sample Size	Total Spending	Average Party Size	Average Nights in Whistler	Average Spending per person per night
GVRD	45*	\$749	2.6	2.6	\$113.62
Other BC	23*	\$1,194	3.3	2.7	\$136.23
Other Can	19*	\$1,289	2.6	4.5	\$111.75
California	18*	\$2,714	3.5	4.6	\$170.19
Washington	26*	\$1,704	3.5	3.9	\$125.45
Other U.S.	30*	\$2,865	3.5	6.5	\$125.29
Overseas	40*	\$2,406	3.4	7.5	\$95.43
Total	201	\$1,799	3.1	4.7	\$121.78

*Caution: small sample size

3.3 Accommodation in Whistler

Table 3.5 shows the breakdown of overnight stays by residency. On average, Bike Park riders tended to stay slightly longer (5.0 nights) than riders using Whistler Valley trails (4.5 nights). Long haul visitors stayed the longest in Whistler with an average of 8.0 nights among Whistler Valley trails users and 7.1 nights among Bike Park users.

Table 3.5: Nights in Whistler Among Overnight Riders by Residency

	Whistler Valley Trails		Bike Park	
	(n)	Mean	(n)	Mean
GVRD	26	2.8	19	2.2
Sea to Sky	3	1.3	0	n/a
Other BC	8	3.3	12	2.6
Other Canada	9	4.2	10	4.7
U.S.	32	4.5	40	5.8
Overseas	18	8.0	22	7.1
Total	96	4.5	103	5.0

* Caution: small sample size



In terms of types of accommodation used in Whistler, slightly less than half the riders (46%) stayed in hotels. Larger rental units (reported by 14% of respondents), staying with friends and relatives (14%), or personal vacation property (10%) were the other accommodation types most commonly utilized by non-resident riders.

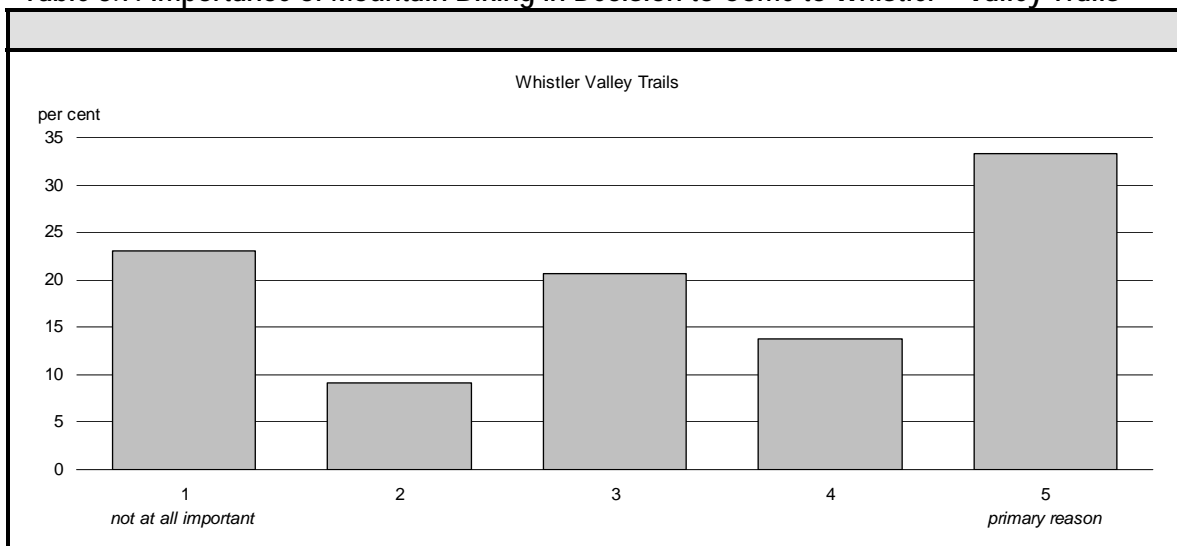
Table 3.6: Type of Accommodation by Rider Type

	Total	Whistler Valley	Bike Park
Hotel/Motel	46%	51%	42%
Rented Cabin/Chalet	14%	11%	17%
Friends/Relatives	14%	12%	15%
Own Cabin/Chalet	10%	13%	8%
Timeshare	5%	2%	8%
Camping	6%	6%	6%
Other	2%	1%	3%
B&B	2%	2%	1%

3.4 Mountain Biking as a Trip Motivator

Non-resident riders were asked to rank the importance of mountain biking in their decision to come to Whistler on a scale of 1 to 5, with 1 being not at all important and 5 being the primary reason for the visit. Somewhat expectedly, a range of responses was received when this question was posed to riders using the Whistler Valley Trails. These trails are accessible to everyone at no cost, so users tend to be a mix of keen bikers and recreationalists who try mountain biking as one of many activities in the Resort. Based on the level of importance that the trails played on the riders' decision to come to Whistler, Valley Trails users were segmented into two groups; Primary users (provided importance ratings 4 or 5) and Secondary users (ranking 1 to 3).

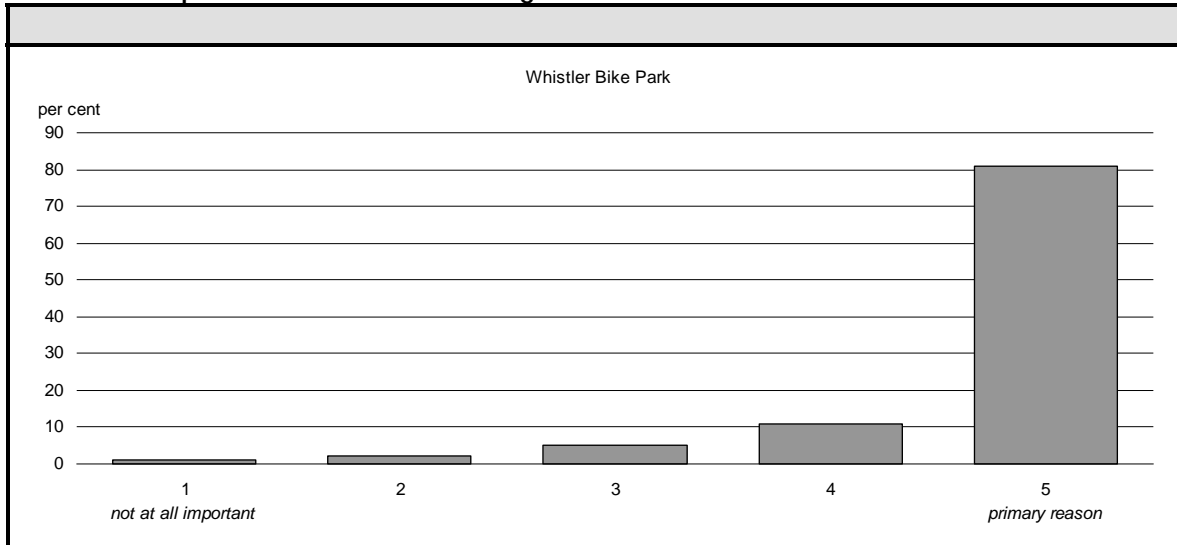
Table 3.7: Importance of Mountain Biking in Decision to Come to Whistler – Valley Trails





Not surprisingly, the Whistler Bike Park was the primary motivation for park riders to visit Whistler. More than 80% gave the Bike Park a 5 out of 5 ranking in terms of its importance in their decision making.

Table 3.8: Importance of Mountain Biking in Decision to Come to Whistler – Bike Park





3.5 Information Sources

Survey respondents were asked to identify key sources of information which influenced their decision to go mountain biking in Whistler. A large portion of respondents (45%) cited a previous mountain biking trip to Whistler, which suggests the Resort has a very loyal segment of visitors, likely comprised of GVRD residents and some short haul US markets. Word of mouth was an important source of information (mentioned by 21% of respondents). As might be expected, 43% of Whistler Valley Secondary riders made the choice to go mountain biking once they were in the Resort versus 9% of Bike Park riders. Magazine articles and advertisements also generated some awareness for Whistler's mountain biking products.

Table 3.9: Information Sources Utilized by Survey Location

	Total	Whistler Valley Primary*	Whistler Valley Secondary**	Bike Park
Have ridden here previously	45%	56%	33%	46%
Word of mouth prior to arrival	21%	24%	24%	19%
Decided upon arrival in destination	16%	5%	43%	9%
Magazines article(s)	7%	7%	2%	10%
Magazine advertisements	5%	7%	0%	6%
Newspaper article(s)	2%	2%	2%	2%
Newspaper advertisements	1%	0%	0%	1%
Whistler-specific website	2%	2%	4%	1%
Mountain bike specific website	2%	7%	0%	1%
Mountain bike movie/video(s)	3%	2%	2%	3%
Preparation/Participation in race	1%	0%	0%	1%
Other	14%	10%	9%	19%

* Primary Whistler Valley Riders gave a score of 4 or 5 as to the importance of riding in their decision to travel to Whistler

** Secondary Whistler Valley Riders gave a score of between 1 and 3 as to the importance of riding in their decision to travel to Whistler



3.6 Rider Profiles

Overall, household incomes among riders in Whistler are high, with 54% riders of Valley Secondary riders and 37% of Bike Park riders having household incomes in excess of \$100,000. However, 50% of Valley Primary users had household incomes of less than \$50,000.

Table 3.10: Riders Household Income (before taxes) in 2005

	Valley Primary	Valley Secondary	Bike Park
Under \$25,000	16%	4%	9%
\$25,000-\$49,000	34%	13%	20%
\$50,000-\$74,999	19%	11%	16%
\$75,000-\$99,999	13%	17%	18%
\$100,000-\$124,999	9%	17%	13%
\$125,000-\$149,999	2%	13%	9%
\$150,000+	7%	24%	15%

Over two-thirds (71%) of all riders surveyed in Whistler were riding their own personal bike. This figure was even higher among the Valley Trails Primary group (90% using personal bikes) and Bike Park users (79% using personal bikes). The highest percentage (62%) of rental bikes was found among the Valley Trails Secondary users, which fits the profile of this rider; someone who came to generally came to Whistler for another reason and then chose to go for a ride.

Table 3.11: Mountain Bike Ownership

	Total	Valley Primary	Valley Secondary	Bike Park
Personal bike	71%	90%	32%	79%
Rental bike	27%	10%	62%	20%
Borrowed friend/family bike	2%	0%	6%	1%



Overall, the majority of riders preferred to ride “more difficult” or “advanced” trails. However, 74% of Valley Trails Secondary riders preferred the “easiest” category. Bike Park users expressed a higher than average preference for “expert” trails with large drops, high built structures and steep slopes. Given the range of trail preferences by visiting riders in Whistler having a wide variety of trails available to meet all riding styles will continue to be important.

Table 3.12: Trail Preference

	Total	Valley Primary	Valley Secondary	BP rider
Easiest - Flat and wide - no special skills required	30%	19%	74%	15%
More Difficult - Moderate single track - small structures / drops - good hiking	38%	49%	33%	37%
Advanced - Steeper & tougher - some mandatory air / drops, strenuous hiking	44%	48%	13%	57%
Expert - Large drops, very high, very skinny structures, steep slopes, exposed situations – difficult to walk	27%	29%	0%	40%

Those respondents on an overnight trip to Whistler were asked how a series of attributes impacted the decision making process when selecting a mountain biking destination. They were asked to rate attributes on a 5 point scale, with 1 being very unimportant and 5 being very important. As Table 3.13 shows that variety of trails has the greatest impact on destination choice (4.1 average score), although this attribute is of limited importance to those not coming to Whistler specifically to mountain bike (2.5 score). The ease of getting to the destination is very important for all respondents (4.0 score) as is the number of trails (3.9 score). The results suggest that a destination’s reputation for mountain biking is relatively unimportant (3.2 score). However, destination reputation is important among Valley Trails Primary users (3.5 score) and Bike Park users (3.7 score). As might be expected, those not in Whistler specifically to mountain bike (Valley Trails Secondary group) were much more interested in the availability of other activities than other respondents.

Table 3.13: Factors Important in Choice of Mountain Biking Destination

	Total	Valley Primary	Valley Secondary	BP rider
Variety of Trails	4.1	4.5	2.5	4.6
Ease of Getting to Destination	4.0	4.3	3.8	4.0
Number of Trails	3.9	4.4	2.4	4.5
Bike Friendly Amenities	3.8	4.1	2.6	4.3
Weather	3.7	3.6	3.8	3.7
Overall Cost of Trip	3.6	3.5	3.5	3.8
Destination Reputation	3.2	3.6	1.8	3.7
Availability of Other Activities	3.1	3.0	4.0	2.6



Those who indicated an attribute was important in their choice of a mountain biking destination (provided a rating of 4 or above) were asked to rate their satisfaction with this aspect of Whistler. As Table 3.14 shows, mountain bikers are extremely pleased with almost all aspects of Whistler. The only attribute to receive a satisfaction score of less than 4.0 was the overall cost of the trip.

Table 3.14: Satisfaction with Whistler

	Total	Valley Primary	Valley Secondary	BP rider
Destination Reputation	4.8	4.9	4.8	4.8
Availability of Other Activities	4.8	4.7	4.7	4.8
Variety of Trails	4.7	4.9	4.7	4.7
Weather	4.7	4.7	4.8	4.8
Number of Trails	4.7	4.8	4.7	4.7
Bike Friendly Amenities	4.6	4.7	4.6	4.6
Ease of Getting to Destination	4.4	4.5	4.3	4.4
Cost	3.8	3.8	3.9	3.7

Respondents were also asked about the likelihood of returning to Whistler for another mountain biking vacation in the next two years. As Table 3.15 illustrates, 80% of respondents indicated they were very likely to return to Whistler and a further 10% are somewhat likely to return.

Table 3.15: Likelihood of Return, by Location and Rider Origin

	Total	Valley Primary	Valley Secondary	BP rider	GVRD	S2S	Other BC	Other Can	U.S.	Overseas
Not likely at all	2%	0%	7%	1%	0%	0%	0%	8%	2%	7%
Very unlikely	2%	3%	0%	2%	2%	0%	0%	0%	3%	0%
Somewhat unlikely	2%	0%	7%	0%	0%	0%	0%	0%	2%	7%
Neutral	4%	0%	12%	1%	7%	0%	0%	0%	2%	7%
Somewhat likely	10%	6%	21%	6%	9%	0%	17%	0%	10%	10%
Very likely	80%	92%	53%	88%	79%	100%	83%	92%	81%	70%



4.0 Crankworx

The Crankworx Freeride Mountain Bike Festival took place in Whistler between July 22 and July 30, 2006 and was watched by an estimated 55,000 unique individuals. The event was surveyed by Tourism Whistler, and a total of 669 people agreed to participate in the survey and 487 people completed the entire survey (the full survey was only given to those who attended a Crankworx event).

Crankworx has seen dramatic growth over recent years, making it one of the premier mountain biking events in North America. It has also grown in length, with this year being the first to feature the 9 day format, thus making direct comparisons to previous years difficult. While many Crankworx attendees were in Whistler specifically to attend the event, others came to the Resort for different reasons. Survey respondents were asked to rank the importance of the event on their decision to travel on a 1 to 10 scale. Using a score of 8 or higher as the screening criteria, results showed that 42% of those interviewed as a Crankworx attendee came to Whistler specifically for the event, which translates into 23,491 attendees from 7,142 visitor parties.

The following analysis will separate the two groups into Crankworx 'primary' visitors, who came to Whistler specifically for the festival, and Crankworx 'secondary' visitors, who came to Whistler for another reason and decided to attend a Crankworx event.

Table 4.1 Survey Sample Results - Crankworx

Number of Surveys	(n=)
Number of Initial Approaches	777
Decline to participate	65
Previously surveyed	43
Work in Whistler	7
Did not attend any Crankworx event	147
Length of stay over 30 nights	13
Incomplete	39
Total Valid Responses	463
<i>Number of primary Crankworx responses</i>	<i>197</i>
<i>Number of secondary Crankworx responses</i>	<i>266</i>



British Columbia was the main source of Crankworx visitors, accounting for more than 50% of those that came to Whistler specifically to watch the event. The origin of secondary visitors was more diverse, likely reflecting the overall mix of visitors in Whistler at the time who decided to take in an event.

Table 4.2 Visitor Origin - Crankworx

	Total	Crankworx Primary	Crankworx Secondary
Vancouver - Lower Mainland	23%	28%	19%
Rest of BC	17%	23%	12%
Other Canada	16%	16%	16%
Washington State	11%	8%	13%
California	3%	3%	4%
Other US	12%	8%	15%
UK	6%	5%	6%
Europe	6%	4%	8%
Australia	3%	3%	4%
Other International	3%	3%	3%

While the overall party size of primary and secondary Crankworx visitors was similar, primary visitors had slightly longer length of stay, and naturally took in more Crankworx events than secondary visitors. Moreover, primary Crankworx visitors were more likely to spend their entire trip in Whistler (78%). As for accommodation use, it was broadly similar between the two groups, with the exception of time share / condo use.

Table 4.3 Party Characteristics and Accommodation Use of Crankworx Visitors

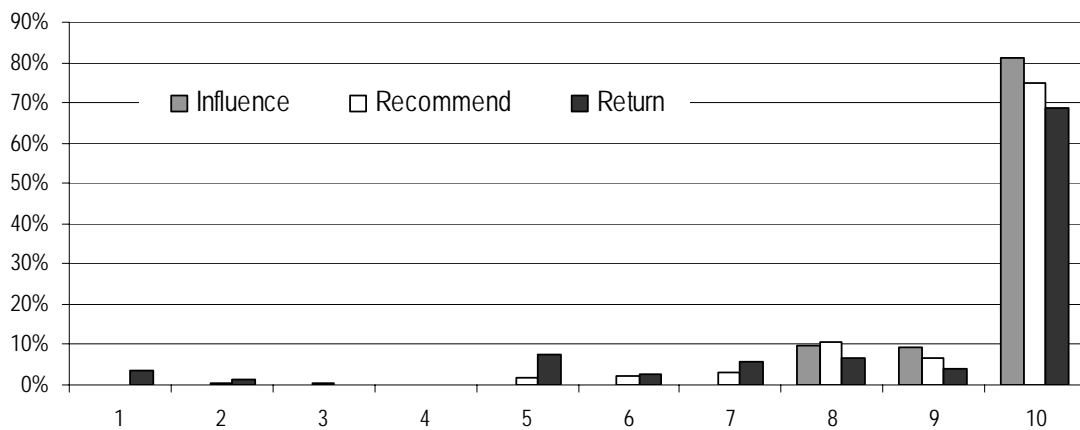
	Total	Crankworx Primary	Crankworx Secondary
Party Size	3.3	3.2	3.3
Nights in Whistler	5.0	5.4	4.8
Days at Crankworx events	3.2	4.1	2.6
% spending all nights in Whistler	68%	78%	60%
Accommodation Use			
Hotel	42%	41%	43%
Home of Friends or Relatives	17%	18%	16%
Rented Condo or Town home	17%	20%	14%
Timeshare	8%	4%	11%
Campground (tent or RV)	6%	7%	5%
Hostel or Club Cabin	3%	3%	3%
Second Homeowner	3%	3%	2%
Other	2%	2%	2%
Rented Chalet / home	1%	1%	2%
Bed & Breakfast or Pension	0%	1%	0%



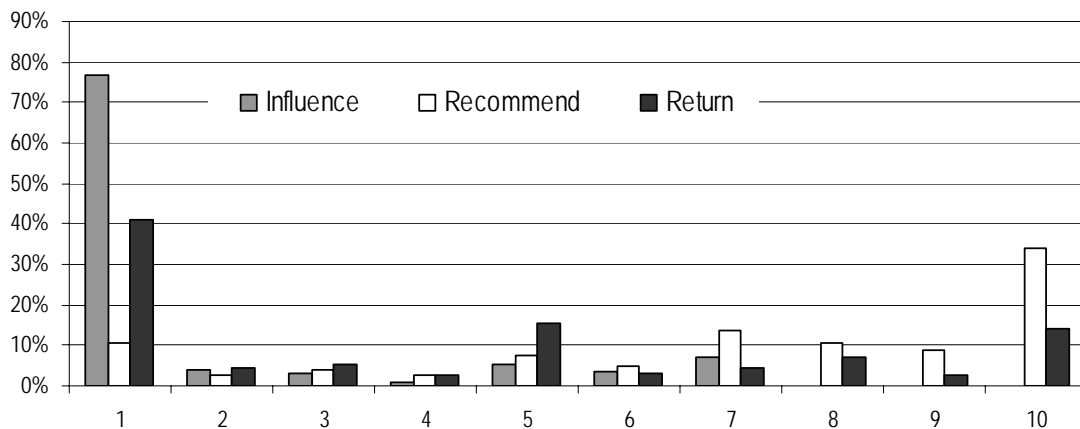
Figure 4.4 shows the influence of Crankworx between the two groups as well as their likelihood to recommend Crankworx to others and to return to the event in 2007. Overall, primary Crankworx visitors were very satisfied, with more than 70% indicating they would recommend it to others. This was also the case for secondary Crankworx visitors, despite the fact that more than 75% of visitors said that the event played no role in their decision to travel to the event, more than 30% would be very likely to recommend the event to others, and more than 20% of secondary visitors gave a rating of 8 or above for their likelihood to return to the event.

Figure 4.4 Influence of Crankworx in Travel Decision, Recommendation of Crankworx to Others & Likelihood of Return

Crankworx Primary Visitors (those ranking Crankworx as 8-10 in their travel decision)



Crankworx Secondary Visitors (those ranking Crankworx as 1-7 in their travel decision)





Nearly three quarters of primary Crankworx visitors had previously been to Whistler, as compared to just under 60% of secondary visitors. Not surprisingly, the vast majority of primary visitors were active mountain bike riders (80%), as compared to less than half of secondary visitors (45%). Additionally, nearly half of primary Crankworx visitors indicated a preference for advanced trails, while 30% indicated that they preferred expert trails.

Table 4.5 Previous Visitation and Riding Preferences

	Total	Crankworx Primary	Crankworx Secondary
% Previously in Whistler	65%	74%	58%
% Currently mountain bike	60%	80%	45%
Trail preference			
Easy	28%	16%	44%
More difficult	36%	36%	37%
Advanced	39%	46%	29%
Expert	22%	29%	13%

Visitor expenditure differences between the two groups of visitors were statistically insignificant; both spent an average of nearly \$1500 per party for the Whistler component of the trip. Note that any Bike Park expenditures would be contained within the Recreation & Entertainment category.

Table 4.6 Crankworx Visitor Expenditures Per Party, Per Trip

	Total	Crankworx Primary	Crankworx Secondary
Accommodation	\$395.08	\$430.48	\$368.86
Restaurant/Bar	\$344.44	\$330.71	\$354.62
Other Food & Beverage	\$114.31	\$116.38	\$112.77
Recreation & Entertainment	\$255.19	\$215.97	\$284.24
Shopping	\$183.59	\$185.30	\$182.33
Own Vehicle	\$60.35	\$63.71	\$57.87
Rental Vehicle	\$81.45	\$58.73	\$98.27
Local Transport	\$7.91	\$7.98	\$7.86
Other Spending	\$43.59	\$42.10	\$44.70
Total	\$1,485.92	\$1,451.36	\$1,511.52



5.0 Economic Impact Results

With the average expenditures and estimated volumes, the total spending of mountain bike visitors was calculated. It is important to note that attribution factors were taken into consideration. For the Whistler Valley trails, the average importance reported at each location was applied to the estimates spending of that category. This was not necessary in the case of visitors to the Bike Park, as illustrated in Table 3.8, well over 90% of Bike Park riders came to Whistler solely to ride. In a similar fashion, Crankworx visitor expenditures were only included for those who reported an overall importance level of 8 and above (i.e. primary Crankworx visitors). In addition to the considerable spending made by Crankworx visitors to Whistler, the event organizers spent nearly \$500,000 in Whistler to host the event, including production costs, wages and salaries, supplies; which have also been included.

In total, mountain biking has a sizeable impact on the summer economy of Whistler and British Columbia, with total expenditures totaling more than \$34.3 million between the valley trails, the Bike Park, and Crankworx. This spending generated more than \$39.1 million in economic activity, and supported more than \$26.5 million in wages and salaries and 798 jobs throughout the Province. Mountain biking in Whistler also supported considerable tax revenues, with over \$8.5 million and \$7.3 million in government taxes paid at the federal and provincial levels, respectively; while municipal revenues throughout the province exceeded \$2.1 million.

Table 5.1 Economic Impact Results – Province of BC

	Total	Whistler Valley	Whistler Bike Park	Crankworx
Initial Expenditure	\$34,371,575	\$6,605,342	\$16,236,267	\$11,957,485
Total GDP	\$39,106,776	\$7,415,457	\$18,823,005	\$13,440,190
Total Wages & Salaries	\$26,561,176	\$5,040,425	\$12,784,971	\$9,150,157
Total Jobs	798	155.2	384.1	268.0
Total Industry Output	\$82,286,932	\$15,794,728	\$39,140,975	\$28,496,935
<i>Taxes</i>				
Federal	\$8,591,743	\$1,706,097	\$3,846,213	\$3,039,433
Provincial	\$7,325,422	\$1,450,574	\$3,264,615	\$2,610,233
Municipal	\$2,106,177	\$430,479	\$944,861	\$730,777
Total	\$18,023,271	\$3,587,149	\$8,055,689	\$6,380,433



Appendices

Appendix 1 – Western Canada Mountain Bike Tourism Association (MBTA)

About Us

The **Western Canada Mountain Bike Tourism Association (MBTA)** was initially developed by three mountain biking individuals from different tourism backgrounds that have a common vision of enhancing Western Canada's mountain biking tourism product in a sustainable and market focused manner that is supported by community stakeholders and resort operators.

Our goal is to have Western Canada recognized for its world class sustainable trails and abundant mountain bike experiences that are supported by enthusiastic communities and operators offering high quality services.

The concept gained momentum following the inaugural Northshore World Mountain Bike Conference held in North Vancouver in August 2004, which highlighted the potential for mountain bike tourism in British Columbia and demonstrated the high level of interest from communities and resorts throughout BC.

The MBTA believes that by working together British Columbia can exemplify standards of sustainability in mountain bike tourism that will not only care for natural areas, but also create local opportunities and support community pride.

Directors

Jimmy Young, Martin Littlejohn, Donna Green, Francis Argouin and Cliff Miller

Current initiatives underway for the MBTA include:

- Sea to Sky Mountain Biking Economic Study – summer 2006
- Bike Parks of BC - Marketing and Development Initiatives in partnership with Tourism BC 2006/07
- Participation in the Recreational Mountain Biking on Provincial Crown Land Working Group through the BC Ministry of Tourism, Sport and the Arts
- Participation on the Whistler Cycling Committee for Whistler 2020 Strategy
- Assisting with the Vancouver Coast and Mountains Tourism Region – Outdoor Adventure Directory 2007
- Presentations at the Canada West Ski Areas Association Conference May 2006 and Gravity Logic Bike Park Management Seminar in September 2006.



Appendix 2: Stint Schedule - Whistler

Date	Weekday	Location	Hours	Surveys	Completes	Riders
Jun 24	Sat	WBP	1.5	7	7	22
Jun 25	Sun	Lost Lake	4	14	14	82
Jun 27	Tues	Comfortably Numb	2	3	2	2
Jun 28	Wed	Emerald	3	6	3	9
Jun 29	Thurs	Other	4	6	3	4
Jun 30	Friday	Emerald	2	1	1	2
Jul 1	Sat	Comfortably Numb	1	1	1	1
Jul 4	Tues	Other	4	6	5	17
Jul 5	Wed	WBP	3	15	15	41
Jul 8	Sat	Rainbow Mtn	2.5	6	6	8
Jul 8	Sat	WBP	3.5	14	14	39
Jul 8	Sat	Lost Lake	4	15	15	30
Jul 8	Sat	Rainbow Mtn	1	1	0	0
Jul 9	Sun	Lost Lake	2	9	7	21
Jul 11	Tues	Lost Lake	2.5	11	8	22
Jul 13	Thurs	Comfortably Numb	2	3	2	4
Jul 14	Friday	WBP	4	25	17	62
Jul 16	Sun	Comfortably Numb	4	4	4	11
Jul 19	Wed	Comfortably Numb	1	2	2	7
Jul 23	Sun	Comfortably Numb	3	3	3	5
Jul 24	Sun	Lost Lake	3	7	7	17
Jul 25	Tues	Rainbow Mtn	4	12	5	10
Jul 26	Wed	Function Junction	3.5	5	2	3
Jul 28	Friday	Lost Lake	1	1	1	1
Aug 1	Tues	WBP	2.5	20	11	35
Aug 5	Sat	Lost Lake	3.5	17	16	47
Aug 5	Sat	Function Junction	4	3	3	9
Aug 6	Sun	WBP	0.25	2	2	6
Aug 6	Sun	Function Junction	7	5	5	16
Aug 12	Sat	Rainbow Mtn	2	8	8	29
Aug 12	Sat	Lost Lake	4	15	13	44
Aug 13	Sun	Function Junction	1	2	2	5
Aug 13	Sun	WBP	3.5	15	14	56
Aug 17	Thurs	Lost Lake	3	11	7	20
Aug 18	Friday	Comfortably	1	1	1	4



Date	Weekday	Location	Hours	Surveys	Completes	Riders
		Numb				
Aug 19	Sat	Comfortably Numb	1	2	2	8
Aug 20	Sun	Lost Lake	2.5	19	7	13
Aug 24	Thurs	WBP	3	12	10	30
Aug 25	Friday	Rainbow Mtn	1	3	3	5
Aug 27	Sun	WBP	2	15	10	37
Aug 28	Mon	WBP	2.5	18	8	24
Sept 1	Friday	Lost Lake	2	6	4	15
Sept 6	Wed	WBP	3	14	12	40
Sept 8	Friday	WBP	2.5	9	2	23
Sept 10	Sun	WBP	2	5	5	12
Sept 12	Tues	WBP	1	4	4	8
Sept 14	Thurs	WBP	1	11	6	21



Appendix 3 – STEAM Pro Information

Background

Briefly, the purpose of STEAM Pro is to calculate both the provincial and regional economic impacts of sport tourism. The economic impacts are calculated on the basis of capital and operating expenditures on goods, services and employee salaries, and on the basis of tourist spending within a designated tourism sector. The elements used to measure the economic impacts are Gross Domestic Product (GDP), Employment, Taxes, Industry Output and Imports. STEAM Pro measures the direct, indirect & induced effects for each of these elements.

Technical Description of the Impact Methodology used by STEAM-Pro

STEAM Pro and many other impact studies are based on input-output techniques. Input-Output models involve the use of coefficients that are based on economic or business linkages. These linkages trace how tourist expenditures or business operations filter through the economy. In turn, the coefficients applied are then used to quantify how tourism related activity in a particular region generates employment, taxes, income, etc. The input-output approach indicates not only the direct and indirect impact of tourism but can also indicate the induced effect resulting from the re-spending of wages and salaries generated.

All impacts generated by the model are given at the direct impact stage (i.e. the "front line" businesses impacted by tourism expenditures), indirect impact stage (i.e. those industries which supply commodities and/or services to the "front line" businesses) and the induced impact stage (induced consumption attributable to the wages and salaries generated from both the direct and indirect impact). In this sense, the model is closed with respect to wages. Imports are also determined within the model, so the model is closed with respect to imports. Exports are not endogenized (i.e. additional exports are not assumed with the induced impact) which consequently generates more conservative impacts. Another assumption of the model, which leads to more conservative impacts, is that not all commodities and/or services purchased are assumed to have at least one stage of production within the province. This assumption is crucial for souvenirs, gasoline and other commodities.

Taxes and employment are key economic impacts and as such must involve the use of both input-output and econometric techniques. The data embodied in the provincial input-output tables are from 1996, while taxes and employment incorporate current coefficients and/or rates. These coefficients and/or rates are then applied to measures determined within the input-output framework of the model. Determining the level of taxes and employment outside the input-output framework of the model allows rates and/or coefficients to be selectively changed for updating or in order to conduct a scenario analysis.

Regional (Sub-Provincial) Impact Methodology

The method used to simulate intraprovincial commodity flows and ultimately regional impacts follows directly from regional economics principles. The principle is referred to as the "gravity model". Basically the "gravity model" states that the required commodity (& service) inputs will be



"recruited" in a manner that takes into consideration economies of scale (i.e. production costs), transportation costs and the availability of specific industries. Economies of scale (i.e. lower production costs) are positively correlated with input demand while greater transportation costs are negatively correlated with input demand. Fulfilling that demand from other provincial regions is contingent on the fact that the specific industry does actually exist. An advantage of using the "gravity model" to simulate intraprovincial commodity flows is that as the industrial composition of the labour force changes, or as new industries appear for the first time in specific regions, the share of production between the various sub-provincial regions also changes.

By following this principle of the gravity model, all sub-provincial regions of a province are assigned a coefficient for their relative economies of scale in each industry (using the latest industry labour force measures) as well as a coefficient to represent the transportation cost involved to get each industry's output to the designated market. One variation on the "gravity model" principle involves the estimation of "relative trade distances" by incorporating different "weights" for different modes of transport. Once these coefficients are generated for all regions and over all industries, a measure of sensitivity (mostly relative to price, but in the case of service industries also to a "local preference criteria") is then applied to all commodities. Another variation on the strict "gravity model" approach is that the measure of sensitivity is adjusted by varying the distance exponent (which in the basic "gravity model" is 2) based on the commodity or service required. The variation in distance exponents revolve, principally, around two research hypotheses: (1) the greater the proportion of total shipments from the largest producer (or shipper), the lower the exponent, and (2) the greater the proportion of total flow which is local (intraregional), the higher the exponent.



Appendix 4 – Glossary

Initial Expenditure - This figure indicates the amount of initial expenditures or revenue used in the analysis. This heading indicates not only the total magnitude of the spending but also the region in which it was spent (thus establishing the "impact" region).

Direct Impact - Relates ONLY to the impact on "front-line" businesses. These are businesses that initially receive the operating revenue or tourist expenditures for the project under analysis. From a business perspective, this impact is limited only to that particular business or group of businesses involved. From a tourist spending perspective, this can include all businesses such as hotels, restaurants, retail stores, transportation carriers, attraction facilities and so forth.

Indirect Impact - Refers to the impacts resulting from all intermediate rounds of production in the supply of goods and services to industry sectors identified in the direct impact phase. An example of this would be the supply and production of bed sheets to a hotel.

Induced Impact - These impacts are generated as a result of spending by employees (in the form of consumer spending) and businesses (in the form of investment) who benefited either directly or indirectly from the initial expenditures under analysis. An example of induced consumer spending would be the impacts generated by hotel employees on typical consumer items such as groceries, shoes, cameras, etc. An example of induced business investment would be the impacts generated by the spending of retained earnings, attributable to the expenditures under analysis, on machinery and equipment.

Gross Domestic Product (GDP)- This figure represents the total value of production of goods and services in the economy resulting from the initial expenditure under analysis (valued at market prices).

NOTE: *The multiplier (A), Total/Initial, represents the total (direct, indirect and induced) impact on GDP for every dollar of direct GDP. This is a measure of the level of spin-off activity generated as a result of a particular project. For instance if this multiplier is 1.5 then this implies that for every dollar of GDP directly generated by "front-line" tourism businesses an additional \$0.50 of GDP is generated in spin-off activity (e.g. suppliers).*

The multiplier (B), Total/\$ Expenditure, represent the total (direct, indirect and induced) impact on GDP for every dollar of expenditure (or revenue from a business perspective). This is a measure of how effective project related expenditures translate into GDP for the province (or region). Depending upon the level of expenditures, this multiplier ultimately determines the overall level of net economic activity associated with the project. To take an example, if this multiplier is 1.0, this means that for every dollar of expenditure, one dollar of total GDP is generated. The magnitude of this multiplier is influenced by the level of withdrawals, or imports, necessary to sustain both production and final demand requirements. The less capable a region or province is at fulfilling all necessary production and final demand requirements, all things being equal, the lower the eventual economic impact will be.



GDP (at factor cost) - This figure represents the total value of production of goods and services produced by industries resulting from the factors of production. The distinction to GDP (at market prices) is that GDP (at factor cost) removes indirect taxes and adds subsidies.

Wages & Salaries - This figure represents the amount of wages and salaries generated by the initial expenditure. This information is broken down by the direct, indirect and induced impacts.

Employment - Depending upon the selection of employment units (person-years or equivalent full-year jobs) these figures represent the employment generated by the initial expenditure. These figures distinguish between the direct, indirect and induced impact. "Equivalent Full-Year Jobs", if selected, include both part-time and full-time work in ratios consistent with the specific industries.

NOTE: *The multiplier (B) is analogous to Multiplier (B) described earlier with the exception being that employment values are represented per \$1,000,000 of spending rather than per dollar of spending. This is done to alleviate the problem of comparing very small numbers that would be generated using the traditional notion of a multiplier (i.e. employment per dollar of initial expenditure).*

Industry Output - These figures represent the direct & indirect and total impact (including induced impacts) on industry output generated by the initial tourism expenditure. It should be noted that the industry output measure represents the **sum** total of all economic activity that has taken place and consequently involve double counting on the part of the intermediate production phase. Since the Gross Domestic Product (GDP) figure includes only the **net** total of all economic activity (i.e. considers only the value added), the industry output measure will always exceed or at least equal the value of GDP.

Taxes - These figures represent the amount of taxes contributed to municipal, provincial and federal levels of government relating to the project under analysis. This information is broken down by the direct, indirect and induced impacts.

Imports - These figures indicate the direct, indirect and induced final demand and intermediate production requirements for imports both outside the province and internationally.