RYERSON UNIVERSITY

THE DEMAND FOR CYCLE TOURISM IN ONTARIO'S GREENBELT REGION

Prepared by: Ga, D., Kamal, N., Lopez Silveira, M.C., Naccarato, G., Scott, S., and Dodds, R.

Published by
Ryerson University
Toronto, Ontario, Canada
December 3, 2010

TED ROGERS SCHOOL OF
HOSPITALITY AND TOURISM MANAGEMENT

EXECUTIVE SUMMARY

The purpose of this research is to determine the demand and growth potential of cycle tourism in the Greenbelt area of Ontario. In order to gain some background knowledge on the cycle tourism industry, research and information was gathered based on a national and international scope. The literature review defines cycle tourism, identifies the growth of the industry, and states some benefits (i.e. increased business and employment opportunities, health benefits, and environmental benefits) and challenges (i.e. limited funding, increase of property prices, safety issues, weather constraints, lack of systematic integration, and unsustainable forms of transportation to trails) of cycle tourism, and discusses the current state of cycle tourism in the Ontario Greenbelt region.

Through the implementation of a questionnaire, the resulting significant findings show that respondents were predominantly male, between the ages of 21 to 40 years old, have single family status, and have a household income over $75,000. The majority of respondents cycle two to three times a week, primarily for health and fitness or leisure purposes, and are most frequently accompanied by friends. Furthermore, cyclists feel that experiencing the natural environment and new destinations are most important when on a cycling trip. Respondents indicated that their most preferred cycle route is a bikelane on a shared roadway. Lastly, the most important mode of communication selected overall was "Websites", however among respondents under 30 years old "Social Networks" were most preferred.

As a result of the findings, four main themes were extracted: (1) A predominant group of respondents were those who cycle often (2 to 3 times and week) and those who have a high income bracket of $75,000 and over; (2) Cyclists do not consider cycling trips in the Greenbelt region to be a cycle holiday destination; (3) Preferred modes of communication were websites

among all respondents and social networks among respondents under 30 years old; and (4) Cyclists who are motivated by health and fitness prefer bikelanes on shared roadways as a cycling route.

The most significant statistical changes between this study and the 2009 study conducted by Bike Train were the following: an increase in the percentage of male cyclists, different motivations for cycling, different accommodation preference, and a decreased percentage of people who have cycled within the Greenbelt region.

As a result of the discussion the following five recommendations were made: (1) Utilize websites as the primary mode of communication to deliver cycle tourism promotions, information, and events; (2) Promote the development of bike lanes on a shared roadway within the Greenbelt region; (3) Use social networks to target younger cyclists; (4) Promote the Greenbelt region as an international holiday destination for cyclists by partnering with international associations and by hosting international cycling competitions; and (5) Develop and implement dedicated cycling maps with a specific rating system for each trail indicating the different levels of difficulty, ranging from leisurely to high endurance trails.

Consequently, this study identifies a high demand and gathers primary data that forecasts the positive growth potential of cycle tourism in the Ontario Greenbelt region.

TABLE OF CONTENTS

TABLE OF FIGURES

TABLE OF TABLES

1.0 INTRODUCTION

The tourism industry continues to be one of the fastest growing industries, and as such is constantly developing and evolving. International tourist arrivals have increased by 7% between January and August 2010 compared to depressed levels of the same period of 2009 (United Nations World Tourism Organization, 2010). In 2009, 47% of travelers arrived at their destination by land rather than by air; this includes 39% by road, 5% over water, and 3% by rail (UNWTO, 2010). Transportation in tourism can have impacts on the local economy:

> "The relationship between tourism and transportation development is inseparable that it affects local economy, nation-wide and international competitiveness in many countries. It appears that bicycle usage and associated tourism activities has become a popular travel mode together with the rising environmentalism and increasing awareness for sustainable development" (Chang and Chang, 2003, p.1675 – 1676).

As the tourism industry's environmental impacts and concerns grow, they are acknowledged and can be reflected by the emerging trend of cycle tourism (Chang & Chang, 2003). "In North America, the American Nationwide Personal Transportation Survey in 1990 discovered that 55% of trips by bicycle were for social or recreational means" (Ritchie, 1998, p.569). The growth of bicycle use for recreational purposes is a positive indicator to the growth of cycle tourism (Ritchie, 1998). Cycle tourism is currently being planned and implemented throughout Europe, parts of Asia, and as far as New Zealand (Ritchie, 1998). To sustain the growth of the cycle tourism industry, more research is needed to identify the demand and growth potential (Ritchie, 1998). In Canada, recognition of the growth of the cycle tourism industry can be reflected in the formation of associations like the Bicycle Trade Association of Canada (BTAC) whose members are made up of bicycle retailers, manufacturers, and suppliers in the cycling industry of Canada (BTAC, 2009b). They are the "national voice of cycling in Canada and the hub of the Canadian bicycling industry" (BTAC, 2009b). The research and information

provided by the BTAC focuses on the cycle industry of Canada at large but fails to focus on the industry on a smaller scale, i.e. information on cycle tourism specifically in Ontario and the Ontario Greenbelt region.

Proposed Research Problem

The objective of this research study is to evaluate the current demand and economic impact as well as growth potential of cycle tourism in Ontario and particularly Ontario's Greenbelt region. The research will investigate the perceptions of cycling opportunities in the Greenbelt and of transportation options within Greenbelt areas as well as current economic spending on cycle tourism. The research question to be answered is: What is the current demand and growth potential of cycle tourism in the Greenbelt region of Ontario? The objectives of the research is to determine the demographic of current and potential cycle tourists, the household income of this select group of individuals, and to determine the motivations cyclists have for participating in cycle tourism.

In general, this report will include a literature review on cycle tourism and information on Ontario's Greenbelt; the methodology used for the study; an in-depth explanation of the research findings; and will conclude with recommendations on how to increase cycle tourism in the Ontario Greenbelt region.

2.0 LITERATURE REVIEW

In evaluating the current demand and economic impact as well as growth potential of cycle tourism in Ontario's Greenbelt region, insight into the perceptions of cycling opportunities in the Greenbelt is necessary. This section focuses on research and information gathered on a national and international scope. This literature review aims to provide some background information on the topic of cycle tourism, growth of cycle tourism, challenges and benefits of cycle tourism, the Ontario Greenbelt region, and cycle tourism in the Ontario Greenbelt region.

Defining Cycle Tourism

Cycle tourism can be defined as "a recreational visit either overnight or a day away from home, which involves cycling as a significant part of the visit" (Faulks, Ritchie & Fluker, 2006, p. 7). In their research on the topic of social perspectives of cycle tourism, Dickinson & Robbins (2009) presented two varying perspectives. From one point of view, people largely consider cycling as a leisure activity. Alternatively, cycling can be more than a leisure activity, the thrill and rush of the activity can be a liberating experience. Those who participate in cycle tourism are considered to be cycle tourists. On one end of the scale, there are cycle enthusiasts that view cycling as the only means of transportation when on a holiday. The purpose of a holiday for cycle enthusiasts is primarily to cycle. On the other end of the scale, there are occasional cyclists who consider cycling as an option and a pleasant means of transport when touring on vacation. Somewhere in the middle of these two extremes lie the majority of cycle tourists (Ritchie, 1998). According to Page (2006), there are three different types of cyclists: (1) occasional leisure cyclists, (2) frequent leisure cyclists, and (3) frequent cycling enthusiasts. Occasional leisure cyclists ride 20-25 miles during a day excursion on quiet country roads and prefer circular day cycle routes so they are able to ride back to their car to begin their journey home. Frequent

leisure cyclists enjoy day cycle trips (30-35 miles on traffic free paths) and may require cycle-friendly accommodations. Very frequent cycling enthusiasts can ride up to 40-45 miles in one day and participate in independent cycle touring (Page, 2006). For the purpose of this literature review, a cycle tourist will be defined as:

> "A person who is away from their home town or country...for the purpose of a vacation or holiday, and for whom using a bicycle as a mode of transport during this time away is an integral part of their holiday or vacation. This vacation may be independently organized or part of a commercial tour and may include the use of transport support services and any type of formal and/or informal accommodation" (Ritchie, 1998, p. 568).

Growth in Cycle Tourism in Canada

The growth and demand of cycling has impacted local and destination communities in different ways. Pucher & Buehler (2005) conducted a study on the cycling trends and policies in six Canadian cities: Montréal, Québec City, Ottawa, Toronto, Vancouver, and Victoria. The majority of these cities indicated that cycling levels have increased during the past twenty years. All of these cities were found to promote cycling, as well as safety in regards to cycling within their communities (Pucher & Buehler, 2005). In 2009, the Bicycle Trade Association of Canada (BTAC) reported total retail bicycle sales of over $200 million. Although unit sales were down by 8%, mostly due to economic recession nationwide, a sales increase of 14% illustrates the growth in spending by cyclists (BTAC, 2009a). Most recently, the city of Toronto has adopted BIXI Montréal's bike sharing system in response to the growing demand for cycling. The bike sharing system allows users to "take a bike from any station, ride it away and return it to any other station in the network" (BIXI Toronto, 2010, para. 6). As quoted in a BIXI Toronto press release on October 19, 2010, "BIXI can significantly reduce the cost of commuting and make a healthy impact on the city and its residents". Since its 2009 launch in Montréal, the bike sharing system has been introduced in Minneapolis, Washington D.C., London, and Melbourne (BIXI

Toronto, 2010). Other initiatives to promote and support the growth of cycling in Toronto include the development of the "Bikeway Network". The city of Toronto is in the process of "...developing a 1,000 km Bikeway Network that will ultimately link cyclists with neighbourhoods and destinations across the city" (City of Toronto, 2010a, para. 1). Targeting commuters and recreational cyclists, the bikeway will consist of bicycle lanes, shared roadway routes and multi-use pathways in parklands and hydro and rail corridors. The goal is to have all Toronto residents within a five minute bike ride to the bikeway (City of Toronto, 2010a). This response to the increase in cycling demand reflects the increasing popularity of cycling as an important means of transportation during a vacation or holiday. Cycling is perceived as an environmentally-friendly means of transportation, which assists in creating a greater demand for tourism activities (Lumsdon & Page, 2004). Packaged holiday vacations are in less of a demand and a new market of environmentally conscious consumers is emerging (Lumsdon, 2000).

Growth of Cycling Tourism in International Destinations

International initiatives in Europe, Taiwan, the United States, and the United Kingdom support the growth of cycle tourism as a means of sustainable transportation. A common factor within the growth of cycle tourism among international destinations is the need for a more sustainable and environmentally friendly means of transportation. In Europe, the promotion of cycling and cycle tourism emphasizes "sustainable mobility, public well-being, and economic development via sustainable tourism" (European Cyclists' Federation, 2009). EuroVelo, the European cycle route network, is a project of the European Cyclist's Federation (ECF). Their mission is to "promote and coordinate the creation and operation of a complete European cycle route network, the EuroVelo network, crossing and uniting the whole European continent" (European Cyclists' Federation, 2009).

Taiwan has also begun developing cycle routes in order to reduce carbon emissions, to encourage cycle tourism, and to create a demand for cycle trips and holidays (Ritchie, Tkaczynski, & Faults, 2010). In 2002, approximately 21 billion NT dollars were invested into the development of cycle routes in Taiwan. The planning and establishment of the Bikeway Systems was launched by the Taiwan Sports Council (Change & Chang, 2003).

In the United States, steps have been taken in order to promote sustainability and to reduce the use of travel by car. Trails and greenways, which are reserved for non-motorized travel, have experienced significant growth. The Rails-to-Trails Conservancy, created in the United States, is a not for profit organization. Its mission is to create a nationwide network of trails from former rail lines in order to promote sustainability within environments for cyclists as well as people traveling by foot (Mundet & Coenders, 2010). These greenways protect the habitat from land development therefore positively affecting the environment by giving people an environmentally friendly travel alternative to automobile use (Mundet & Coenders, 2010).

In the UK, "cycle tourism is becoming an increasingly significant element within rural sustainable development projects" (Richards & Hall, 2000, p. 128). The *Sustainable Rural Tourism Report* by the Countryside Agency in the UK highlighted twenty-one projects exemplifying sustainable tourism practices. Out of the twenty-one projects, eight were focused on cycle tourism. These projects were being developed in various rural locations and ultimately encouraging a different type of focus to tourism (Richards & Hall, 2000).

This international awareness of cycle tourism illustrates the growth and future potential of this industry. Naturally, along with the growth of this industry a set of challenges and benefits need to be identified and addressed.

Benefits of Cycle Tourism

The promotion of cycle tourism provides numerous benefits including: increase in business opportunities, increase in employment opportunities, health benefits, and environmental benefits.

Increase in Business Opportunities

As the demand for cycle tourism increases, cyclists' spending on food, drinks, entertainment and other expenses related to the sport will also increase at travel destinations (BTAC, 2009a). Cycling provides an added activity, that helps to extend the length of stay and encourages repeat visits during holiday vacations. Cyclists use all types of accommodations, from five star hotels to camping grounds, with the average length of stay for short cycling trips being two nights and long cycling holidays extending up to 7.1 nights (Fraietta, 2004).

Increase in Employment Opportunities

There are many employment opportunities with the growth of cycle tourism. The Bicycle Trade Association of Canada (BTAC) suggests that an annual requirement between 50 and 100 new mechanics in the Greater Toronto Area, and as many as 1000 in other major cities in Canada, will be demanded as cycling continues to gain popularity. This will positively impact the increasing need for employment in Ontario (BTAC, 2009a).

Health Benefits

Pucher & Buehler (2005) indicate that health benefits are motivational factors for cyclists as cycling is proven to be a helpful type of cardiovascular exercise that benefits both mental and physical health. One core aspiration of cycle tourists is to restore their feeling of well-being.

Environmental Benefits

Cycle tourism has become an increasingly important component within rural sustainable development projects because of its contribution to eliminating greenhouse gas emissions. Transport offerings, such as the National Cycle Network (NCN) in the UK, experience long-term environmental gains if there is a potential to move from motorized to non-motorized travel. By doing this, there will be an overall reduction in car mileage, pollution, and congestion (Lumsdon, 2000). Cycle tourism plays a part in eliminating the use of motorized travel, i.e., for sightseeing purposes; tourists and visitors will spend the day cycling rather than touring by car or bus (Lumsdon, 2000).

Challenges of Cycle Tourism

Despite these benefits, some of the challenges of cycle tourism include: limited funding, increase of property prices, safety issues, weather constraints, lack of systematic integration, and unsustainable forms of transportation to trails.

Limited Funding

Despite the increase in demand, there are issues of infrastructure. For example as Pucher & Buehler (2005) outline, these cities have reached their limit in development of cycling infrastructure due to limited funds available.

Increase of Property Prices

Lumsdon (2000) describes studies reported in the US which describe increased property prices experienced close to cycle routes. Many rural communities within the US have dominant retired-residential sectors, populated with residents who are less inclined to see benefits of supporting trail and route developments to sustain cycle tourism.

Safety Issues

Safety concerns arise in some destinations causing a barrier for cycle tourism when tourists have a fear of traffic (Lumsdon, & Page, 2004). Although this remains a challenge, this issue has been resolved in *some* areas where destinations have created cycle trails, which are traffic free or traffic calmed (Lumsdon, 2000). For example, in the UK, the Bristol and Bath Railway Path has been redeveloped as a 17-mile traffic-free bike trail along the disguised railway to promote a healthy and safe route of transportation (Sustrans, 2010).

Weather Constraints

In Canadian cities and other destinations with severe weather changes, cycling is considered to be a seasonal activity. In Canada, only 5% of those who cycle during the peak summer months continue to cycle during the winter (Pucher & Buehler, 2005). This proves to be a challenge as cycling demand can be affected by weather and seasonality.

Lack of Systematic Integration

In regards to the cycle routes in Taiwan established by the Taiwan Sports Council the main barrier preventing further developments of these cycle routes is the lack of systematic integration of each cycle network; each project has its own target goal (Kuo, 2009).

Unsustainable Forms of Transportation to Trails

It has been estimated by Toronto Public Health that out of the 6,000 air pollution related hospital admissions (directly from traffic and car emissions), approximately 1,700 cases result in pre-mature deaths in Toronto, Ontario every year (City of Toronto, 2010b). Creating cycle networks and embracing cycle tourism reduces negative impacts on the environment such as car emissions. Although there are environmental benefits, there is still a challenge as there is an

increase in the number of people taking bicycles by car to trail and countryside locations (Lumsdon, 2000).

Motivations of Cyclists

Common motivational factors of cycle tourists which have been recognized include physical challenge, relaxation, social escapism, peace and quiet (Lumsdon & Page, 2004). More tourists are choosing activities such as cycling with the aim of creating a healthier lifestyle (Lumsdon, 2000). Moreover, integrating cycle tourism at travel destinations provides an alternative travel method and acts as a substitute for other modes of transport, such as private cars, which are less sustainable forms of transportation (Dickinson & Robbins, 2009).Thus, the motivational factors of health and sustainability reflect the demand for cycling within tourism. Currently in Canada, there are various companies and organizations who offer cyclists a variety of programs targeting these various motivations. Such organizations include: the Canadian Cycling Association (2006) who organize and promote competitive cycling events, Ontario Cycling Association (2009) who "deliver and promote quality programs and services for existing and future members in the sport of cycling" (para. 1), and Bike Train (2010) who has partnered with VIA Rail Canada to offer cyclists transportation between Toronto and Niagara to enjoy a cycling getaway.

> "...the Bike Train will connect Toronto with destinations across Ontario, providing cyclists of all abilities easy access to the Greenbelt, wine and culinary regions, northern lakes and forests, off-the-beaten-path towns and villages, world-renowned natural and historical sites, and thousands of kilometres of recreational trails and on road cycling routes" (Bike Train, 2010, para. 4).

The Greenbelt region of Ontario has the potential for fulfilling these motivations for cyclists.

Background and History of the Greenbelt Region

A Greenbelt Region is protected green space surrounding cities or towns, which contains a mix of public land and privately held land on which development restrictions are placed (Esakin, 2010). The Greenbelt model can be considered a modern land use planning tool to help achieve local food security, protect ecological integrity, conserve biodiversity, protect local water quality and quantity, and provide natural recreation areas for nearby urban centers (Esakin, 2010). The Greenbelt imposes a freeze on privately owned agriculture land that would have otherwise been available for development (Pond, 2009).

Both government and non-governmental bodies are involved and the plan is reviewed every ten years. Municipalities' decisions and official plans in the Greenbelt area must conform to the Greenbelt Plan. Recently, the council has worked to prevent planned and proposed development in a number of sensitive areas in the Greenbelt as well as create programs to support farming, recreation and tourism abiding the Act (Esakin, 2010).The model of the Greenbelt has been in practice for nearly 75 years. London and other cities in the UK established the Greenbelt Act in 1938 to empower local authorities to buy land and keep it open as a Greenbelt (London Green Belt Council, 2009). With the Greenbelt Act that was established in the UK in 1938, the provincial Cabinet has the authority to establish a Greenbelt Plan and to establish a Greenbelt Council which is able to regulate the land development in designated greenbelt areas (Esakin, 2010). Environmental awareness and sustainability issues are recognized as important issues of concern on an international basis. Identical concerns can be seen in Ontario, Canada. In response to the growth of environmental concerns in Ontario, the Greenbelt region of Ontario was developed in 2005. Figure 2.1 is a map of Ontario's greenbelt region, which surrounds Toronto areas and stretches along the Niagara escarpment. The Greenbelt

protects much of Canada's most sensitive green-land and productive farmland. Since 2005, 1.8 million acres of land has been protected as designated greenbelt area in Ontario (Esakin, 2010). This designated land surrounds the province's Golden Horseshoe region, the most populated area in Canada, and includes green space, farmland, vibrant communities, forests, wetland, watersheds and key environmentally sensitive areas (Esakin, 2010). From a tourism perspective, cycling is an ideal tourism activity to promote in the Greenbelt area since it is an environmentally conscious activity. With 125,000 acres of parkland, the Greenbelt provides breathtaking landscapes and trails that encourage visitors to take part in activities such as sports festivals and events, hiking, rock climbing, cycling, as well as the ability to experience its pebbled beaches, waterfalls, wetlands, and rich range of wildlife (Greenbelt, 2010b).

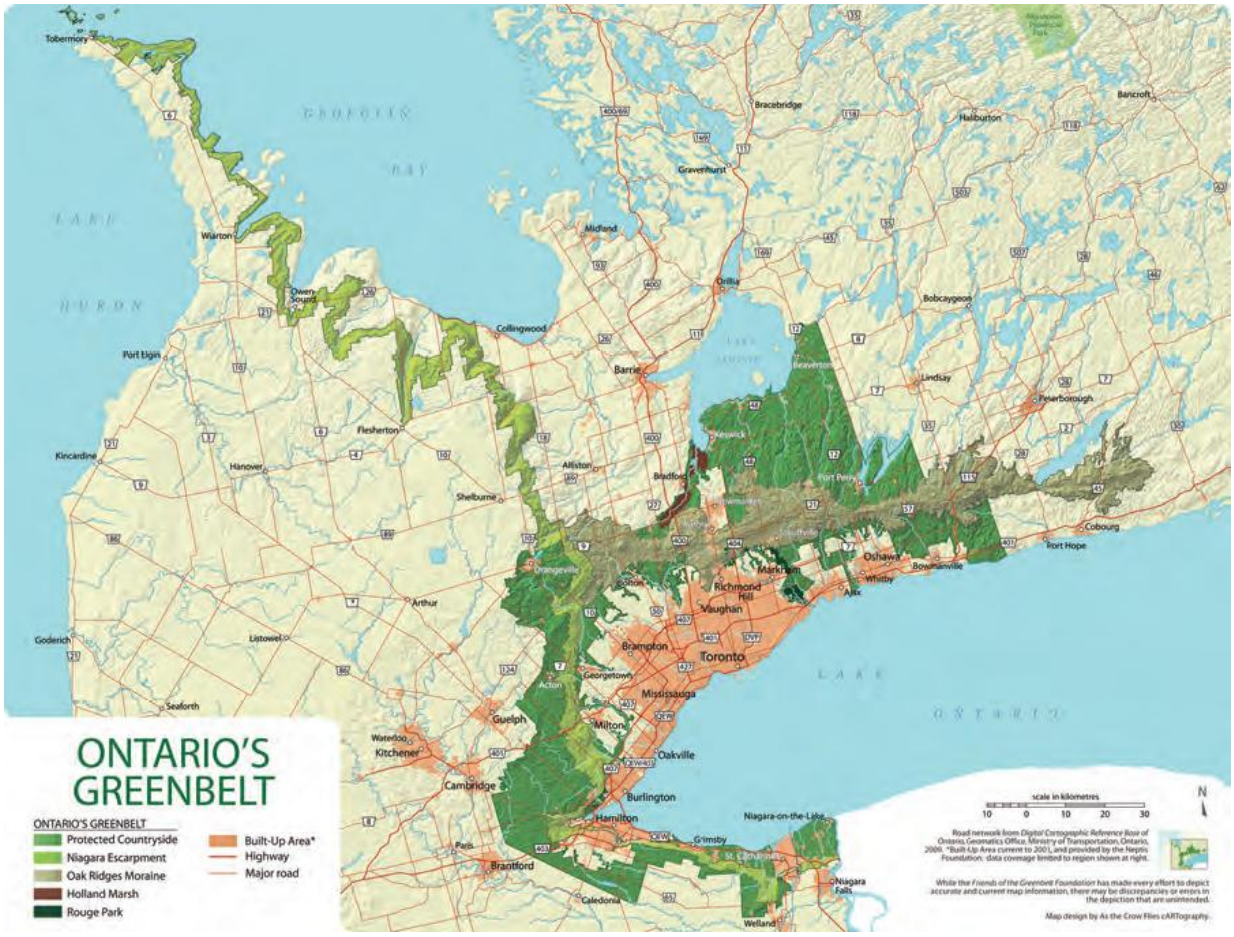


Figure 2.2.1: Map of Ontario's Greenbelt Region

Cycle Tourism in Ontario's Greenbelt Region

The development of cycle initiatives such as the BIXI Toronto bike sharing system in Ontario and the maintenance of trails in the Ontario's Greenbelt region support the growth of cycle tourism opportunities in Ontario's Greenbelt. Polls conducted in 2010 by Environics Research Group for the Greenbelt Foundation highlight the significance and support for maintaining and preserving the Ontario Greenbelt region (Greenbelt, 2010a). The research goes on to describe the growth of farmland in the Greenbelt, preservation of animals, insects and plants, and other ecological related topics but fails to investigate the growth of the tourism activities in the Ontario Greenbelt region; specifically the growth of cycle tourism. Compared to the research conducted on the growth of cycling tourism in international cycling destinations such as Europe, Taiwan, the United Kingdom, and the United States, which were previously discussed, there is a lack of information available about the Canadian cycle tourism sector, specifically in Ontario. The cycle tourism industry growth potential and the possibilities of many business opportunities in the Ontario Greenbelt region will remain unknown until further studies and research are conducted on the topic. For this reason, executing this research study was essential in order to fill in the missing gaps of information required to promote the development of the cycle tourism industry in Ontario's Greenbelt region.

3.0 METHODOLOGY

Introduction

The purpose of this research was to determine the demand and growth potential of cycle tourism in the Greenbelt region of Ontario. The methodology will outline the use of primary data, which was gathered via consumer surveys administered by group members, and secondary data, which includes academic and peer reviewed journal articles to determine the current knowledge on cycle tourism. In addition, it will also include an explanation of why quantitative research was conducted, how the survey was created and modified, the time period and locations of when and where surveys were collected, and how the data was analyzed.

Secondary Data Collection

Secondary data was used to gather background information and findings about cycle tourism and Ontario's Greenbelt region in order to develop a literature review. The information was obtained by consulting past cycling related research articles and journal publications. Academic literature that was used includes sources such as: *Transport and Tourism: Cycle Tourism – a model for sustainable development? (2000),* and *Cycling Trends and Policies in Canadian Cities (2005)*. Looking at these articles was necessary in order to learn about the cycle tourism industry, the growth of cycle tourism, the benefits and challenges of cycle tourism, as well as to obtain knowledge about Ontario's Greenbelt region.

Primary Data Collection

Quantitative primary data was collected by distributing questionnaires to people who are active cyclists. Quantitative research was chosen for the study rather than qualitative research as it enables researchers to manipulate the data findings in order to determine patterns and relationships (Neuman & Robson, 2009). The information gathered from the surveys will contain

insight on cycling motivations within the Greenbelt, preferred types of cycle routes, as well as information about the spending habits and motivations of people participating in cycling tourism.

Research Method

A survey research method was selected to conduct the study for a variety of reasons. First, using a questionnaire allowed for information to be collected in a unified manner. Data collected from respondents were comparable because they were asked in the same way and the same order (Neuman & Robson, 2009). Second, a questionnaire was selected rather than an interview because it reduces interviewer bias; no verbal or visual cues are present to influence the response of cyclists (Walonick, 1993). Finally, the questionnaire was the most efficient method of collecting information due to time constraints. Questionnaires can be distributed to more than one respondent at a time making the data collection process more rapid.

To create the research questionnaire, a variety of resources were first analyzed and reviewed. A previous cycling questionnaire *(Richie, 1998)* and the client, Bike Train, were consulted to guide the creation of the questionnaire. It was modified and edited according to the suggestions and recommendations of Louisa Mursell, the *Welcome Cyclists Network Manager at* Bike Train, and Professor Rachel Dodds.

The questionnaire was composed of 14 questions that took less than 5 minutes to complete. It included both closed and open ended questions. Closed ended questions are structured and fixed responses which are easier and quicker for respondents to answer, responses are easier to compare, and there will not be any irrelevant or confusing answers to the questions (Neuman & Robson, 2009). Open ended questions are unstructured and free responses which will help respondents answer in detail and can qualify and clarify responses (Neuman & Robson, 2009). Prior to distribution, the questionnaire needed to be tested for clarity and comprehension.

Piloting

A pilot study was performed on four randomly selected cyclists from Ryerson University as well as one Bike Train representative to identify any weaknesses or additional design elements that needed to be modified. There were few changes to the questionnaire after piloting. First, it was necessary to insert an age range question with the same age intervals as past surveys conducted by Bike Train to allow for future comparisons. Second, an additional question about holiday cycling within a 12 month period was added to generate more recent data. Third, preference of mode of communication to receive information about cycling was added as it was seen as important information for Bike Train. Forth, several ranking questions were reworded for clarity. Lastly, motivations to explore the Greenbelt were incorporated as other questions. See Appendix A for a copy of the pilot questionnaire and Appendix B for a copy of the final questionnaire that was used for this research study.

Sample Size

For the purpose of this study, a sample size of 400 was used. As recommended by Professor Rachel Dodds, 400 questionnaire responses are an appropriate sample size and will therefore be representative of Ontario cyclists.

Data Collection

The research study in its entirety was completed over a period of 12 weeks. More specifically, questionnaires were gathered over a 2 week period. The questionnaires were administered by group members at various locations within Toronto. A Bike Train representative recommended high traffic locations where cyclists are likely to be found, such as: Mountain Equipment Coop retailer and the Toronto Harbour Front cycling lanes and bicycle racks. Additional research was also conducted to find alternative locations, such as: The Annual

Toronto International Bicycle Show. This is where most of the questionnaires were collected. A small number of surveys were also collected from Bike Train employees, who filled them in and returned them via mail. Figure 3.1 below summarizes the number of surveys collected at each location.

Table 3.1: Locations Where Surveys Were Collected and Number of Surveys Collected

Location	Number of Surveys Collected
Annual Toronto International Bicycle Show	215
Mountain Equipment Coop (Cycling Department)	120
Toronto Harbour Front Cycling Lanes and Bicycle Racks	53
Bike Train Employees	12
TOTAL	**400**

Assumptions

In order to interpret the collected research data in a unified manner, some assumptions must be made: the 400 questionnaires that were collected represent the characteristics and opinions of the general population of cyclists in Ontario, this was assumed by asking participants a preliminary question: "Are you a cyclist?"; the questionnaires were answered in an honest manner and the opinion of the respondents will provide accurate results; the surveys were completed individually so that there were not any biases and are therefore reliable; the respondents had the surveyor's cooperation to clarify questions if there was difficulty in understanding the questions; the respondents did not have a time limit.

Data Analysis

In order to analyze the data findings, SPSS (Statistical Package for the Social Sciences) Software was used. SPSS is a comprehensive, easy-to-use set of data and predictive analytic tool which offers superior analysis capabilities, flexibility and usability (SPSS, 2010). Many critical steps were undertaken to complete the analysis portion of the report. First, the questionnaire was coded to create a template for inputting data into SPSS. Coding entails assigning a value to each

question (e.g. Q1, Q2, Q3, etc.), and assigning a numeric value to each response (e.g. "Yes" = 1, "No" = 0). See Appendix C for the coding format of the questionnaire. Second, the questionnaire responses where inputted into the SPSS database. Third, in order to analyze the data, frequency tables were generated to summarize the findings of each question. Fourth, correlation tables, referred to as "cross-tabulations" in SPSS software, were created in order to determine the relationship between variables in different questions (e.g. Respondent's cycling motivation for health and fitness versus Age). Throughout the Report Findings section, the bottom of each cross-tabulation table presents three values: chi square, degree of freedom (d), and the significance (p). These three values assist in identifying the relevancy, accuracy and significance of each cross-tabulation. For the relationship to be considered significant, the p value must be less than 0.05, and the value of degree of freedom must be below 9. The chi-square value is used to assess whether a relationship exists between the two variables presented within a table. Some of the tables were altered by combining variables within a table in order to create relevant and significant data; this is referred to as collapsing the variables. For example, if a table includes the relationship between the respondent's age and the frequency in which they cycle, and the table does not possess the appropriate degree of freedom certain variables need to be re-grouped or collapsed (i.e. combine age brackets "Under 20" and "21 to 30" to make "Under 30" years old). Through the process of re-grouping (or collapsing) categories, the significance and degree of freedom can result in providing relevant and accurate data. All of the tables presented within this section prove to be significant because the required values are satisfied. The ultimate purpose of analyzing the various relationships is to determine the current demand and future growth opportunities for cycle tourism in the Greenbelt region of Ontario. The relationships will also be

used to generate recommendations that will guide the development and growth of cycling within Ontario's Greenbelt based on cyclists' responses.

Using the results of each cross-tabulation, the Discussion and Recommendations sections of the report was produced with the aim of answering the research question for this study: What is the current demand and growth potential of cycle tourism in the Greenbelt region of Ontario? Upon completion of the analysis portion of the study, explanations of the economic value and long-term growth potential about cycle tourism was identified. To conclude the report, a set of future recommendations and growth strategies on how to increase cycle tourism in the Greenbelt region was included. The research that has been conducted on this topic to date will be valuable information and provide insight into a potentially booming industry in Ontario.

Limitations

Some limitations have been identified throughout the research study. During the process of conducting the research, the major obstacles that occurred include: Many respondents were in a rush while completing the questionnaire therefore their responses may be affected; due to time constraints, piloting only occurred once therefore limiting additional editing for clarity; lastly, many cyclists avoided to participate in the survey because there were no incentives for participating in the study.

4.0 REPORT FINDINGS

This section of the research report will display and discuss the findings of the survey responses while highlighting the most significant data. The findings will begin with a discussion of the demographics of cyclist survey respondents, and then progress into more specific information such as cycling motivations, and preferred methods of communication.

Profile of Ontario Cyclists

Figure 4.1: Gender

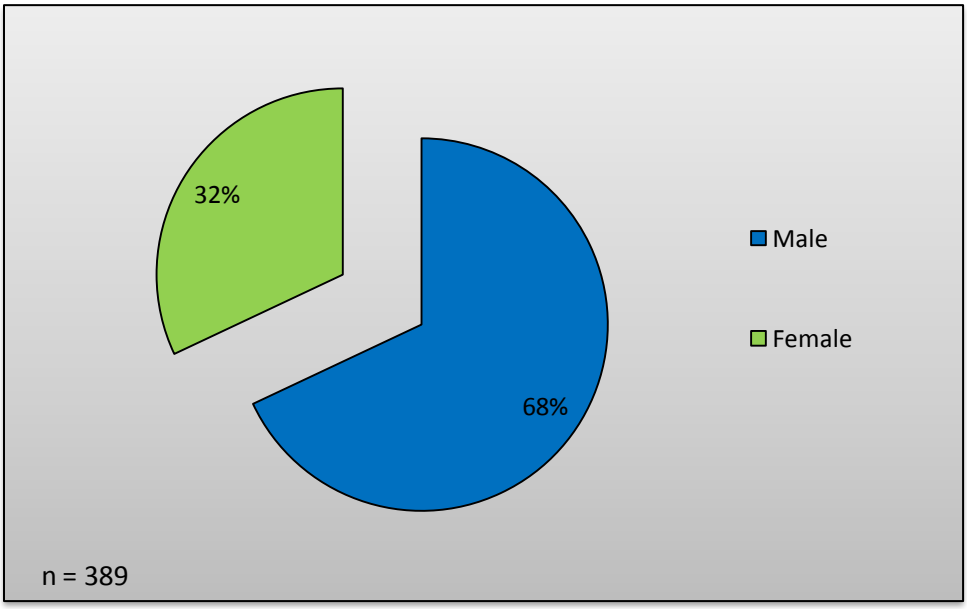
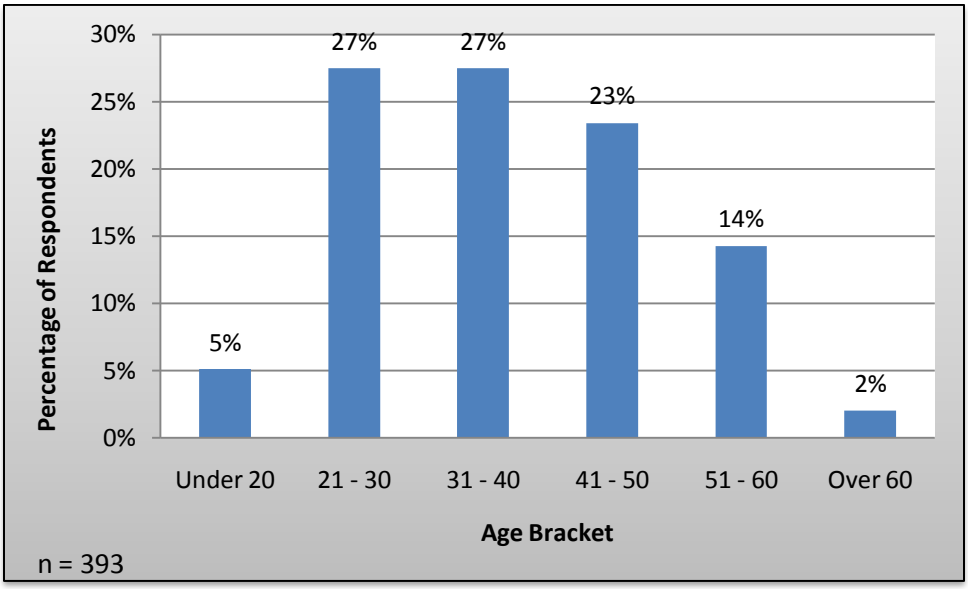


Figure 4.1 demonstrates that the majority of respondents were male, dominating 68% of total cyclists surveyed. Since the locations where the information was collected were not gender focused, the greater number of male respondents can be an indication that the majority of cyclists in Ontario are male.

Figure 4.2: Age Bracket



The predominant age range of respondents lies between the ages of 21 to 40 years old (see Figure 4.2). The two age brackets (21 to 30 years old and 31 to 40 years old) comprise 54% of the total respondents. The third largest age bracket was between the ages of 41 to 50 years old (23%).

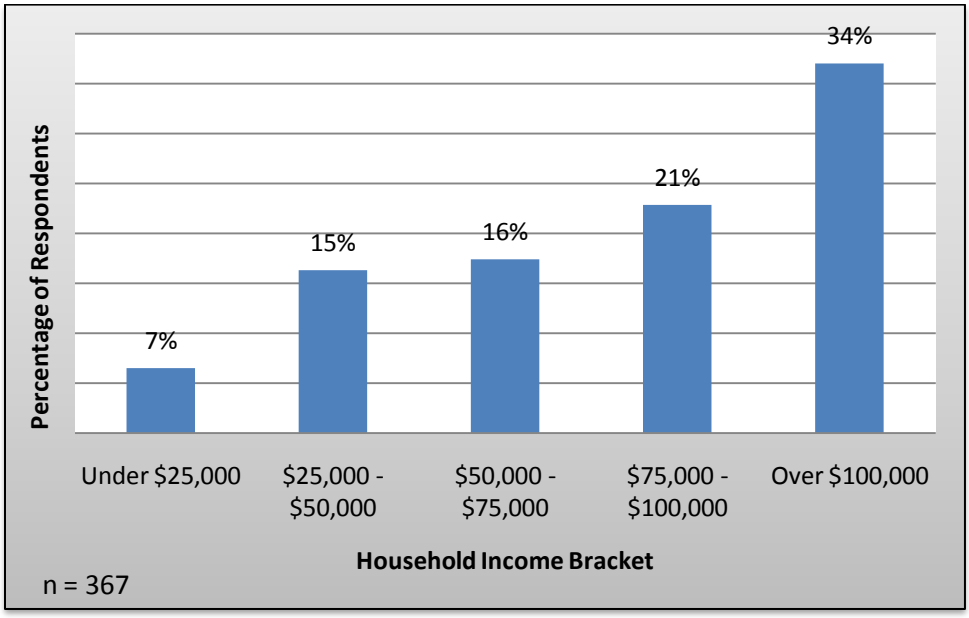
Table 4.1: Family Status

Family Status	(%)
Single	42
Married/ Common Law without children	24
Married/Common Law with children under 12 years at home	10
Married/ Common Law with children over 12 years at home	15
Empty Nester	5
Other	1

n = 386

The greatest number of respondents were single (42%), while 24% were married/common law without children (See Table 4.1). Only four respondents selected "Other" as their family status and all four indicated that they are divorced, which represents 1% of the total cyclists that were surveyed.

Figure 4.3: Household Income



The household income of the cyclists that were surveyed is illustrated in Figure 4.3. From this figure, 55% of cyclists have higher than average income ($75,000 +) and 34% earned $100,000 +. Respondents with the household income below $25,000 is low, therefore it is evident that those who cycle predominantly have a higher household income.

Motivations for Cycling

Table 4.2: Motivations for Cycling

	Leisure	Family Activity	Health & Fitness	Min. Environmental Impacts	Transportation
Very Important	20%	3%	39%	4%	19%
Important	18	8	16	9	12
Neutral	13	12	13	14	11
Unimportant	12	11	5	20	15
Least Important	7	30	3	16	9

n = 400

By referring to Table 4.2, it is observed that the predominant motivation for cycling was "Health & Fitness". At 39%, Health and Fitness was selected as the significantly most important motivation for cycling relative to the other motivational options.

Table 4.3: The Importance of the Following Activities As Part of Cycling Trip

	Stop to Visit Sites and Attraction	Enjoy a Meal Out	Experience Natural Environment	Shop At Local Retailers	Experience New Destination	Physical Exercise
Very Important	28%	26%	56%	10%	56%	62%
Important	36	38	28	16	27	27
Neutral	22	25	11	31	10	8
Unimportant	7	6	2	29	2	3
Not important At All	4	2	1	11	1	1

n = 400

Table 4.3 shows the importance of activities during a cycling trip. It is significant to note that 62% of respondents indicated that physical exercise is a very important activity when they participate in cycling trips. It is also important to note that 56% of respondents agree that experiencing the natural environment and experiencing a new destination are very important activities.

Frequency of Cycling

Table 4.4: How Frequent Respondents Cycle

Daily (year round)	29%
Daily (warm weather only)	11
Often (2-3 times a week)	37
Occasionally (2-3 times a month)	15
Rarely (less than once a month)	5
Other	3

n =398

By observing Table 4.4, it has been determined that the majority of cyclists cycle "Often (2-3 times a week)" with 37% and "Daily (year round)" with 29%. It is important to mention that 3% of respondents selected "Other" and indicated that they cycle only during the summer season.

Cycle on Holiday

Table 4.5: Number of Times within the Last 12 Months that Respondents Have Travelled for a Cycling Holiday

Never	51%
1-2 times	25
2-3 times	14
4-5 times	5
5+ Times	5

n = 396

In Table 4.5, it is evident that 51% of respondents have never been on a cycling holiday in the last year. Although, this data indicates that cycling holidays are not that popular among about half of the respondents, there is still a market for the other 48% of respondents that have been on a cycling holiday at least once within the last 12 months.

Table 4.6: Destinations Where Respondents Have Taken a Cycle Holiday

Ontario	Quebec	Elsewhere in Canada	Europe	Other International Destinations
44%	13%	14%	12%	11%

n = 197

The number of respondents that have taken a cycle holiday in specified destinations is shown in Table 4.6. Evidently, 44% of the respondents that have been on a cycling holiday have taken it within the province of Ontario.

Table 4.7:Who the Respondents Cycle With on Their Trip(s) or Holidays

Alone	In a Club	Family	Friends	Significant Other	Commercial Cycling Tour
34%	7%	32%	56%	23%	6%

n = 400

Table 4.7 indicates that 56% of respondents primarily cycle with friends while on a trip or holiday. However, a large number of respondents also have a preference to cycle alone, with family or with their significant other. A small number of respondents cycle within a club or on a commercial cycling tour.

Table 4.8: Type of Accommodation that Respondents Prefer to Use During a Cycling Trip

	Homestay	Camp Grounds	Bed and Breakfast	Motel	Hotel
Most Preferable	23%	15%	19%	5%	21%
Preferable	9	14	16	11	10
Neutral	8	9	15	18	9
Less Preferable	13	8	9	18	12
Least Preferable	13	19	5	9	14

n =400

As shown in Table 4.8, 23% of respondents ultimately prefer to use “Homestay” as their accommodation type while on a cycling trip. However, staying at a hotel or bed & breakfast are also popular types of accommodation. Therefore, the following three accommodations, in order

of most preferable, are (1) homestay, (2) hotel, and (3) bed & breakfast. The least preferred accommodation type is the use of camp grounds.

Table 4.9: Preferred Type of Route to Cycle On

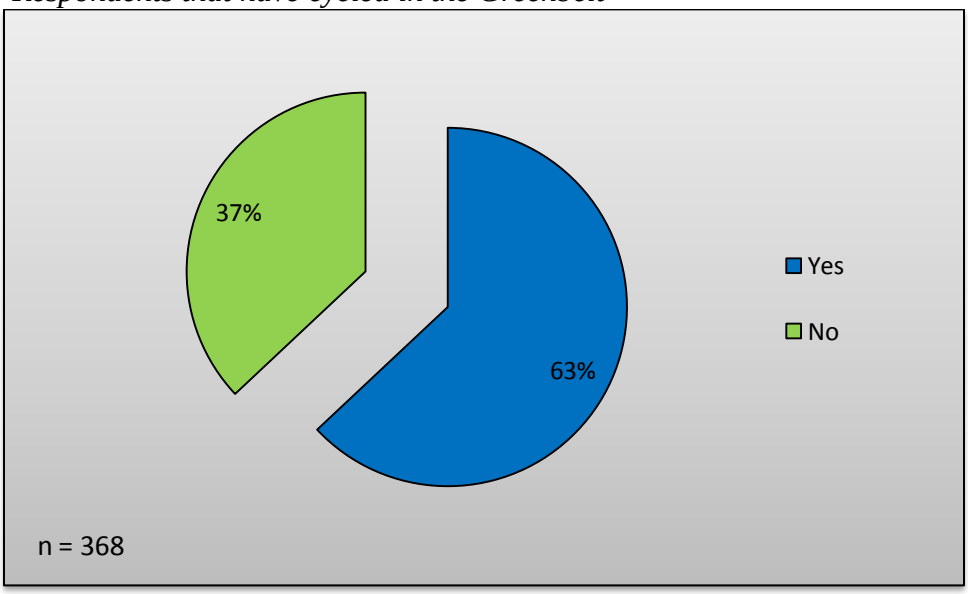
	Paved Off Road Recreational Trail	Unpaved Off Road Trail	Mountain Biking Track	Paved Shoulder on Shared Roadway	Bike Lane on Share Roadway	Secondary Roadway
Most Preferable	31%	5%	17%	8%	15%	9%
Preferable	7	16	6	14	16	8
Somewhat Preferable	14	5	7	14	14	14
Somewhat Not Preferable	12	9	6	12	11	18
Less Preferable	5	23	8	10	10	9
Least Preferable	4	9	26	13	4	10

n = 400

Table 4.9 illustrates the preferred type of route to travel on while cycling. As evident in the table above, 31% of the surveyed cyclists prefer to use routes that provide "Paved Off Road Recreational Trails". Therefore, it is clear that bicycle routes along the greenbelt should primarily focus on providing these types of paths in order to better accommodate and attract more cyclists. This will be described in more detail in the "6.0 Recommendations" section of this report.

Motivation and Knowledge of Greenbelt

Figure 4.4: Respondents that have cycled in the Greenbelt



In reference to Figure 4.4, 63% of cyclists indicated that they have cycled within the Greenbelt area. If participants had not cycled within the Greenbelt area, they were asked to select what would motivate them to explore the Greenbelt by bike.

Table 4.10: The Motivations that Would Lead to Explore the Greenbelt by Bike for Cyclists that Have Never Visited the Area

Organized Cycling Events	More Promotions and Promotional Materials about Cycling in this Area	Sustainable Transportation Options	Dedicated Cycling Maps
12%	13%	6 %	15%

n = 137

Table 4.10 indicates that 15% of participants would be motivated to explore the Greenbelt by bike if there were "Dedicated Cycling Maps" indicating the route they can travel

on. Further, “More Promotions and Promotional Materials” about cycling in the greenbelt (13%) and “Organized Cycling Events” (12%) were selected as motivations to explore the area.

Mode of Communication

Table 4.11: The Preferred Mode of Communication to Receive Information on Cycling in Ontario

	Advertising	Word of Mouth	Websites	E-Newsletters	Social Networks	Promotions at Events
Most Preferable	9%	10%	37%	21%	4%	6%
Preferable	8	7	12	13	9	5
Somewhat Preferable	10	9	9	7	9	9
Somewhat Not Preferable	10	11	3	6	8	14
Less Preferable	8	410	5	7	11	11
Least Preferable	10	9	2	10	12	9

n = 400

As displayed in Table 4.11, 37% of respondents primarily selected “Websites” as the preferred mode of communication to receive information on cycling in Ontario. Two respondents suggested advertising particularly on one website called “Pinkbike.com”. The second most preferred mode of communication was “E-newsletters”. Three respondents also suggested e-mailing the e-newsletters to cycling club presidents, who can then pass on the information to the club members. In addition, it is important to note the least preferred communication mode selected, which was “Social Networks”.

Motivations and Greenbelt Cyclists

Table 4.12: Respondents who have cycled within the Greenbelt versus those with the Cycling Motivation of Leisure

		Have you ever cycled within the Greenbelt area?	
		No	Yes
Leisure as a Motivation for Cycling	Very Important	26%	30%
	Important	19%	32%
	Neutral	18%	20%
	Unimportant	26%	12%
	Least Important	11%	6%
Total		100%	100%

Chi Square=12.654, d=4, p=<0.05

Table 4.12 indicates a strong relation between those who have cycled within the Greenbelt area and those who indicated leisure as their most important motivation for cycling. Out of the percentage of people who have cycled within the Greenbelt, most respondents in this category indicated that leisure is either very important (30%) or important (31%). It is important to note that out of the percentage of people who have not cycled within the Greenbelt, 26% of respondents indicated leisure as being very important. Contrastingly, within this same category, people also indicated that leisure was unimportant with the same percentage of respondents being 26%. Although these two indications contrast, since there is still a large percentage who feel that it is very important, this shows that there is still a market and current demand to promote leisure within the greenbelt.

Table 4.13: Respondents that cycle In a Club during cycling trip versus Respondents that have cycled within the Greenbelt area

		Have you ever cycled within the Greenbelt area?	
		No	Yes
With whom do you cycle on your trip(s) or holidays? (In a club)	No	99%	89%
	Yes	1%	11%
Total		100.0%	100%

Chi Square=12.142, d=1, p=<0.001

In reference to Table 4.13, the overall majority of respondents (whether they have or have not cycled within the Greenbelt) do not cycle in a club. Therefore, it can be concluded that there is no relationship between visiting the Greenbelt and participating in cycling clubs. This can indicate one of two things, (1) there is not enough promotion advertising the existence of these cycle clubs, or (2) cyclists are generally not interested in participating in cycling clubs, therefore these clubs are not a large potential target market for the Greenbelt. Thus, these cyclists are most likely independent and cycling clubs could be a key promotional opportunity as awareness is low.

Table 4.14: Respondents that cycle with Friends during a cycling trip versus Respondents that have cycled within the Greenbelt

		Have you ever cycled within the Greenbelt area?	
		No	Yes
With whom do you cycle on your trip(s) or holidays? (Friends)	No	55%	36%
	Yes	45%	64%
Total		100.0%	100%

Chi Square =14.629, d=2, p=<0.01

In comparison to the table above, Table 4.14 indicates that out of the number of people who have cycled within the Greenbelt, a large percentage, 64% cycle with friends. Thus, those who cycle with friends are a large target market for the Greenbelt.

Table 4.15: Respondents that cycle with Commercial Cycling Tour during a cycling trip versus Respondents that have cycled within the Greenbelt

		Have you ever cycled within the Greenbelt area?	
		No	Yes
With whom do you cycle on your trip(s) or holidays? (Commercial cycling tour)	No	97%	92%
	Yes	3%	8%
Total		100.0%	100.0%

Chi Square =4.517, d=1, p=<0.05

Table 4.16: Respondents that cycle within a Commercial Cycling Tour versus Age Bracket

		Please indicate the age bracket you fall under		
		Under 30	31 - 50	51 and Over
With whom do you cycle on your trip(s) or holidays? (Commercial cycling tour)	No	98%	94%	86%
	Yes	2%	6%	14%
Total		100.0%	100%	100%

Chi Square =10.492, d=2, p=<0.01

Similar to Table 4.13, Table 4.15, indicates that regardless of whether or not the individual has visited the Greenbelt, they do not participate in commercial cycling tours. Table 4.16 also supports this analysis as it indicates that the majority of respondents within all age groups do not participate in commercial cycling tours. Therefore, according to the questionnaire responses, cycling clubs and commercial cycling tours are generally not utilized and perhaps not widely offered.

Motivations and Demographics

Table 4.17: Cycling Frequency versus Household Income Bracket

		Please indicate your household income bracket		
		Under $50,000	$50,000 - $75,000	$75,000 and Over
How often do you cycle?	Daily (year round)	42%	25%	24%
	Daily (warm weather only)	12%	18%	10%
	Often (2-3 times a week)	25%	33%	43%
	Occasionally (2-3 times a month)	12%	18%	16%
	Rarely (less than once a month)	8%	3%	5%
	Other	1%	3%	2%
Total		100.0%	100%	100%

Chi Square=19.235, d=9, p=<0.05

As illustrated in Table 4.17, those who cycle most frequently (Daily – year round) have indicated a household income bracket of under $50,000. This can be an indication that respondents within this household income bracket utilize a bicycle for transportation more than for tourism purposes because of the high frequency of use. Those who cycle "Often" (2-3 times a week) also show a high frequency of cycling with people in this category (43%) having a household income bracket of $75,000 and over. The relationship is significant to note because this could indicate that those with higher household incomes utilize cycling more as a leisure activity and are more likely to spend money because they may have more disposable income due to their higher earnings.

Table 4.18: Respondents with the Motivation for Health and Fitness versus Age

		Age Bracket		
		30 and under	31 – 50	51 and over
What is your motivation for cycling? (Health and Fitness)	Important	61%	77%	84%
	Neutral	34%	20%	16%
	Least Important	5%	3%	
Total		100.0%	100%	100%

Chi Square=12.054, d=4, p=<0.05

In Table 4.18, another significant relationship can be seen between cycling motivations and age range. Across all age ranges that were surveyed the majority selected health and fitness as their top motivation for cycling. This is an indicator of the growth potential of cycling and how it can be promoted within the Greenbelt.

The following report findings are based on a number of cross-tabulations that were created in order to determine the relationship between variables in different questions:

Motivations and Preferences

Table 4.19: Health and Fitness as a motivation for cycling versus the Route preference for a Bikelane on a Shared Roadway

		What type of routes do you prefer to cycle on? (Bikelane on shared roadway)		
		Preferable	Somewhat Preferable	Least Preferable
What is your motivation for cycling? (Health and Fitness)	Important	77%	69%	59%
	Neutral	23%	25%	33%
	Least Important		6%	8%
Total		100.0%	100%	100%

Chi Square =10.626, d=4, p=<0.05

As outlined earlier from the above findings, health and fitness was the strongest cycling motivation among respondents. Looking at Table 4.19, 77% of those with a motivation for health and fitness indicated that their preferred route to cycle on is a bikelane on a shared roadway. If

cyclists who cycle within the Greenbelt prefer bikelanes on shared roadways, this should be taken into consideration when developing cycle tourism throughout the Greenbelt as well as provincially.

Table 4.20: Health and Fitness as a Motivation for Cycling versus Frequency of Cycling

		What is your motivation for cycling? (Health and Fitness)		
		Important	Neutral	Unimportant
How often do you cycle?	Daily (year round)	25%	37%	41%
	Daily (warm weather only)	12%	17%	7%
	Often (2-3 times a week)	42%	18%	38%
	Occasionally (2-3 times a month)	15%	15%	10%
	Rarely (less than once a month)	4%	11%	3%
	Other	2%	2%	
Total		100.0%	100%	100%

Chi Square=16.857, d=9, p=<0.05

In Table 4.20, those who cycle with an important motivation for health and fitness, cycle often (2-3 times a week) as indicated by 42% of respondents. Therefore, this generates a demand for bikelanes on a shared roadway since the majority of surveyed cyclists who are motivated by health and fitness, cycle often and would utilize these routes.

Table 4.21: Health and Fitness as a Motivation for Cycling versus Websites as a Mode of Communication

		What would be your preferred mode of communication to receive information on cycling in Ontario? (Websites)		
		Preferable	Somewhat Preferable	Least Preferable
What is your motivation for cycling? (Health and Fitness)	Important	76%	67%	58%
	Neutral	23%	31%	29%
	Least Important	1%	2%	13%
Total		100.0%	100%	100%

Chi Square=12.933, d=4, p=<0.05

As displayed in Table 4.21, the relationship between health and fitness as a motivation for cycling and using websites as a mode of communication is compared. It is significant to note that 76% of respondents who feel health and fitness is important, also feel that the use of

websites to communicate cycling events and information is a preferred mode of communication. Referring to the findings indicated earlier in this section, this relationship is significant as 39% of the total respondents believe health and fitness is very important and 37% of the total respondents believe that websites are the most preferred mode of communication.

Demographics and Preferences

Table 4.22: Respondents that Preferred Websites as a Mode of Communication to Receive Information on Cycling in Ontario versus Age Range

		Please indicate the age bracket you fall under		
		Under 30	31 - 50	Over 51
What would be your preferred mode of communication to receive information on cycling in Ontario? (Websites)	Preferable	60%	77%	91%
	Somewhat Preferable	24%	17%	3%
	Least Preferable	16%	6%	6%
Total		100.0%	100%	100%

Chi Square=16.680, d=4, p=<0.01

Focusing on Table 4.22, it is observed that all age range brackets indicated that they prefer Websites as a mode of communication to receive information on cycling in Ontario. Cyclists that are over 51 years of age are the cyclists who prefer this mode of communication the most. This suggests that Websites are seen as the most convenient form of communication.

Table 4.23: Respondents that Preferred Social Networks as a Mode of Communication to Receive Information on Cycling in Ontario versus Age Range

		Please indicate the age bracket you fall under		
		Under 30	31 - 50	51 and Over
What would be your preferred mode of communication to receive information on cycling in Ontario? (Social Networks)	Preferable	31%	20%	20%
	Somewhat Preferable	38%	27%	30%
	Least Preferable	31%	53%	50%
Total		100.0%	100.0%	100.0%

Chi Square=10.030, d=4, p=<0.05

The data in Table 4.23 illustrates that cyclists that are under 30 years of age prefer (31%) and somewhat prefer (38%) to use Social Networks as a mode of communication to receive information on cycling in Ontario. As the age bracket range increases the preferred level of using Social Networks as a mode of communication decreases. This indicates that cyclists that are 51 years of age and over have the least preference to using Social Networks as a communication tool to receive information about cycling in Ontario.

Greenbelt Cyclists an d Cycle Holidays

Table 4.24: Respondents Who have Cycled Within the Greenbelt versus Respondents that have Taken a Cycle Holiday in Ontario

		Where have you previously taken a cycle holiday? (Ontario)	
		No	Yes
Have you ever cycled within the Greenbelt area?	No	44%	27%
	Yes	56%	73%
Total		100.0%	100.0%

Chi Square=12.419, d=1, p=<0.001

Table 4.24 below shows that 73% of cyclists who have cycled in the Greenbelt region have also participated in previous cycling holidays within Ontario. Such a high figure indicates that cyclists who have cycled in the Greenbelt observe the Greenbelt area as an Ontario holiday destination. On the other hand, 56% of cyclists who have cycled within the Greenbelt area

indicated that they have not been on a cycle holiday in Ontario. This suggests that those cyclists do not consider the Greenbelt as a cycle holiday destination implying that the Greenbelt has not been widely promoted as a cycling holiday destination in Ontario.

Table 4.25: Respondents that have cycled within the Greenbelt area versus Respondents that have taken a Cycle Holiday in Quebec

		Where have you previously taken a cycle holiday? (Quebec)	
		No	Yes
Have you ever cycled within the Greenbelt area?	No	40%	16%
	Yes	60%	84%
Total		100.0%	100%

Chi-Square=10.087, d=1, p=<0.001

As shown in Table 4.25, 84% of survey respondents have taken a cycle holiday within Quebec and have also cycled within the Greenbelt. This indicates that many cyclists, who utilize the Greenbelt, also make use of bike trails within Quebec. Therefore, Greenbelt cyclists can be considered to be cycle enthusiasts who are willing to travel to take part in a cycling holiday.

Table 4.26: Respondents that have cycled within the Greenbelt versus Respondents that have taken a Cycle Holiday Elsewhere in Canada

		Where have you previously taken a cycle holiday? (Elsewhere in Canada)	
		No	Yes
Have you ever cycled within the Greenbelt area?	No	39%	24%
	Yes	61%	76%
Total		100.0%	100%

Chi Square=4.690, d=1, p=<0.05

As displayed in Table 4.26, 76% of respondents who have previously taken a cycle holiday elsewhere in Canada (other than Quebec or Ontario), have also cycled within the Greenbelt region. Again, this indicates that there is a nationwide demand for cycle tourism;

however most cyclists who have cycled throughout various destinations in Canada also take advantage of cycling within Ontario's Greenbelt.

Table 4.27: Respondents who have Cycled within the Greenbelt versus Respondents that have taken a Cycle Holiday in Europe

		Where have you previously taken a cycle holiday? (Europe)	
		No	Yes
Have you ever cycled within the Greenbelt area?	No	39%	18%
	Yes	61%	82%
Total		100.0%	100%

Chi Square=8.177, d=1, p=<0.01

The data in Table 4.27 shows that 82% of those who have taken a cycle holiday in Europe have also cycled within the Greenbelt. This relationship is significant as it is possible to assume that those who take cycle trips abroad are more likely to cycle in the Greenbelt and therefore are contributing to its growth.

Table 4.28: Respondents Who have Cycled Within the Greenbelt versus to Respondents that have Taken a Cycle Holiday in Other International Destinations

		Where have you previously taken a cycle holiday? (Other International Destinations)	
		No	Yes
Have you ever cycled within the Greenbelt area?	No	39%	18%
	Yes	61%	82%
Total		100.0%	100.0%

Chi Square=7.384, d=1, p=<0.01

Similar to the results presented in Tables 4.24 – 4.27, Table 4.28 illustrates that 81% of cyclists who have cycled in the Greenbelt area have also previously taken a cycling holiday to other international destinations. This strong relationship demonstrates that cyclists who cycle in other international destinations are more likely to cycle within the Greenbelt Region.

Summary of Findings

The results of the findings, illustrate that the characteristics of Ontario's cyclists are predominantly male, between the ages of 21 to 40 years old, have a single family status, and have a household income over $75,000. The majority of respondents stated that they cycle two to three times a week, primarily for health and fitness purposes, and are most frequently accompanied by friends. The second most common categories were close with cycling alone at 34% and cycling with family at 32%. The increase of cyclists who prefer to cycle alone can be associated with the fact that many also indicated they cycle for the purpose of transportation. It can be concluded from the findings that websites are the preferred mode of communication among cyclists. In addition, cyclists consider experiencing the natural environment and new destinations as very important activities during their cycling trips. There is a high percentage of respondents who feel that leisure is an important motivator for cycling, thus this preference should be promoted within the Greenbelt. Cycling clubs and commercial cycling tours are generally not utilized and perhaps not widely offered. The respondents who cycle "Often – 2 to 3 times a week" (43%) have a high household income bracket of $75,000 and over. Across all age ranges that were surveyed the majority selected health and fitness as their top motivation for cycling. Out of this majority, 77% indicated that their preferred route to cycle on is a bikelane on a shared roadway. Cyclists that are under 30 years of age prefer (69%) to use social networks as a mode of communication to receive information on cycling in Ontario. Respondents who have cycled in the Greenbelt region (73%) have also participated in previous cycling holidays within Ontario. A high percentage of those who have cycled within Ontario's Greenbelt region have also taken cycle holidays in other parts of Ontario, Quebec, elsewhere in Canada, Europe, and other international destinations.

In sum, the findings describe a variety of correlations that can be used as indications of the current demand of cycle tourism in Ontario's Greenbelt region. It provides an indication of the general demographic of an Ontario cyclist and their motivations for cycling. This information will be used in the Conclusion & Recommendations section which will make recommendations about how to promote and generate a greater demand for cycle tourism in the Greenbelt.

5.0 DISCUSSION

The research question for this study was: What is the current demand and growth potential of cycle tourism in the Greenbelt region of Ontario? This section will refer back to the research and study findings of this report in order to draw some conclusions about the economic impact, demand and potential growth of cycle tourism in the Greenbelt. Furthermore, the reasoning of why these findings are important to consider when developing cycle tourism demand in the Greenbelt will be outlined. Some prominent themes have been identified based on the information gathered from this study. The themes to be discussed are the change of cyclist demographics and preferences based on 2009 statistics, high income cyclists, promoting the Greenbelt as a cycle tourism destination, preferred modes of communication, and bike lanes on shared roadways as a preferred cycling route.

Statistical Comparisons

In the 2009 Bike Train Final Report (Lafontaine, 2009), a similar study was conducted in order to determine the demographics, cycling motivations, and the demand of cycling in the Ontario Greenbelt. The study was done on a smaller scale with 258 responses. Some similarities and differences in the responses have been identified. Table 5.1 displays the comparison of the most significant information from Bike Train 2009 statistics and the current 2010 statistics.

Table 5.1: Comparison of Bike Train (2009) & Ryerson (2010) Statistics

	Bike Train 2009 Statistics	**Ryerson 2010 Statistics**
Gender	Female (56%)	Male (68%)
Household Income	$75,000+ (40%)	$75,000+ (54%)
Age	21 – 50 years (61%)	21 – 50 years (77%)
Motivation for Cycling	Leisure/Recreation (38%)	Health & Fitness (39%)
Cycle Trip Company	Friends (38%)	Friends (56%)
Type of Accommodation	Chain Branded Hotel (33%)	Homestay (23%)
Have you ever cycled within the Greenbelt	Yes (85%)	Yes (63%)

Some conclusions can be drawn based on these comparisons. It is important to mention that these statistical differences can be the result of administering the questionnaires in different locations and through a different method. The most significant statistical differences include: an increase in the percentage of male cyclists, different motivation for cycling, different accommodation preference, and a decreased percentage of people who have cycled within the Greenbelt region.

In the 2010 study, males have been identified as the predominant gender of cyclists and the major motivation for cycling for most people is health and fitness as opposed to leisure and recreation. This means that in order to increase the demand of cycle tourism in the Greenbelt, an alternative marketing strategy must be implemented. Rather than promoting the culture, recreational activities, and attractions at the Greenbelt, a more focused strategy on the availability of various lengths and types of trails can be promoted.

Next, the preferred type of accommodation by cyclists going on a cycle holidays has changed from a Hotel stay to a Homestay. This is an indicator of the business opportunities within the Greenbelt region. With an increased preference of homestays, smaller scale accommodation providers and independently owned small hotels could succeed within the Greenbelt region.

Finally, although almost 50% of people indicated that they had taken cycle holidays in Ontario, the percentage of people who have cycled within the Greenbelt has decreased by over 20%. This could have been influenced by the location where the questionnaires were administered. Since this questionnaire was collected from people only within the Greater Toronto Area (GTA), the results may be slightly biased. Therefore, it can be said that there is a high demand for cycle tourism since people are actively participating in cycling holidays. In addition, although over 60% of respondents indicated that they have cycled within the Greenbelt region of Ontario relative to 2009 statistics, the knowledge of the Greenbelt of Ontario is limited, specifically within the GTA.

High Income Cyclists

Due to the fact that the majority of Ontario cyclists belong to a high income bracket, they most likely contribute to the majority of bicycle sales in Ontario. This can be further supported through the 2009 Bicycle Trade Association of Canada (BTAC) report indicating that total retail bicycle sales were over $200 million. A sales increase of 14% illustrates the growth in spending by cyclists (BTAC, 2009a). This relationship between sales and income demonstrates that the high income bracket respondents have likely contributed to the recent sales increase. Overall, this income factor is important when taking into consideration the economic impact and growth potential of cycle tourism in the Greenbelt. A large amount of revenue can be generated by attracting this market of cyclists to tour along the Greenbelt region.

Promoting the Greenbelt as a Cycle Tourism Destination

More than half of the respondents who identified that they have previously cycled within the Greenbelt region of Ontario also stated that they have not participated in cycle tourism in Ontario. From this information, it can be determined that cyclists do not consider cycling trips in

the Greenbelt region to be a cycle holiday destination. Alternatively, in considering the respondents who have cycled within the Greenbelt region, a significantly larger number of respondents also stated that they have been on a cycle holiday in Quebec compared to Ontario. In Montreal, Quebec, there has been a growth and demand for cycling in general as evident by initiatives like the BIXI Bike Sharing system. This project was founded in Montreal and readily provides cyclists with access to bicycles in various locations within Montreal on a rental basis.

Therefore, people who visit the Greenbelt are interested in taking cycling holidays in locations where cycling initiatives are being implemented as they are likely cycling enthusiasts. To further reinforce the demand of cycle holidays, approximately half of the respondents surveyed indicated that they have been on a cycling holiday within the last 12 months.

This positively reinforces the growth potential of cycle tourism within the Greenbelt region. People are evidently willing to go on cycling holidays signifying that there is potential to promote the Greenbelt region of Ontario as a cycle holiday destination.

Preferred Modes of Communication

Another main theme found throughout this study concerns the preferred mode of communication to receive information on cycling in Ontario. The findings show that the majority of respondents selected 'Websites' as their most preferred mode of communication. Respondents from all age groups selected websites as their preferred mode of communication to receive information. This suggests that websites are seen as a convenient form of communication and could be ideal when promoting the Greenbelt as a cycle tourism destination.

Further, an important theme is illustrated by comparing age ranges with 'Social Networks' as a mode of communication to receive information on cycling in Ontario. Younger respondents indicated that they prefer communication through the use of social networks. This

finding is important to take into consideration when targeting certain markets to promote cycling within the Greenbelt.

In order to promote the growth of cycle tourism in Ontario, media such as websites and social media will be most effective in reaching the greatest audience.

Bikelanes on Shared Roadways as Preferred Cycling Route

Cyclists who are motivated by health and fitness prefer bikelanes on shared roadways as a cycling route. Within the city of Toronto, the growth of the cycling industry has been recognized and responded to by resurfacing and re-painting much of the city's bikelanes (City of Toronto, 2010c). The development of the bikeway network will be partly made up of bikelanes on shared roadways therefore positively supporting the city's developments and targeting those interested in cycling for health and fitness reasons. Consequently, the Greenbelt region would benefit from developing similar roadways to appeal to this growing demand and at the same time, can contribute to increasing cycle tourism.

The four main themes presented have evaluated the current demand, economic potential, and growth potential of cycle tourism in Ontario's Greenbelt region. A profile of the Ontario cyclists provided insight into their demographics and cycling preferences in order to identify how to sustain the growth of cycle tourism. The high income bracket of cyclists identified that there will be positive economic benefit in the future growth of the cycle tourism. There is a demand for cycle tourism as people are willing and interested in going on cycling holidays. Promoting the Greenbelt region of Ontario as a cycle holiday destination reinforces its growth potential. In promoting cycle tourism in Ontario's Greenbelt, websites and social networks have been identified as the most effective forms of communication. Finally, the high demand for

cycling and cycle tourism was identified with the increase of bike lanes on shared roadways developments. This was identified as a preferred cycling route by survey respondents and reflects the initiatives taken on by the city of Toronto. Implementing such routes in the Greenbelt will address the needs of cyclists in Ontario. The purpose of this study was to analyze and determine the economic impacts, growth potential, and demand of cycle tourism in the Ontario Greenbelt region. A thorough analysis of past and current research has illustrated that there is a demand for the industry, cyclists' profile supports a positive economic impact on the industry and city wide as well as international initiatives support the growth potential of the industry.

6.0 CONCLUSION AND RECOMMENDATIONS

This report aims to establish the demand and growth potential of cycle tourism in the Greenbelt region of Ontario. Through gathering primary and secondary information, relationships between the data were generated to produce analytical results which assisted in generating strong recommendations. Through implementing the following growth strategies and recommendations, it is believed that the demand for cycle tourism will increase within the Greenbelt region of Ontario:

1. Websites should be utilized as the primary mode of communication for delivering cycle tourism promotions, information, and events. This suggestion is due to the high percentage of respondents who preferred websites over other means of communication. In particular, it is important to target high income ($75,000+) cyclists through this mode of communication as they are the prominent target market in terms of income.
2. Due to the fact that cyclists who are motivated by health and fitness most prefer bike lanes on a shared roadway, it is necessary to promote the development of this type of bike route within the Greenbelt region.
3. Social networks such as Facebook and Twitter should continue to be utilized as promotional tools to target cyclists who are 30 years of age and under. According to the research results, this is the age group that most preferred communication thorough social media. The growth of social media will assist in reaching future generations in higher volumes.
4. Based on the positive correlation between cyclists who have participated in cycle holidays outside Ontario and cyclists who have visited the Greenbelt region, the Greenbelt should be promoted as an international holiday destination for cyclists. This

can be done by partnering with international associations and by hosting international cycling competitions in destinations that recognize the growth of cycle tourism. In reference to the literature review, this includes countries such as the UK, Taiwan, and the United States.

5. For cyclists who have not visited the Greenbelt, "Dedicated Cycling Maps" was the most popular choice as a motivational tool to explore the Greenbelt. As health and fitness is also a major motivational factor for cyclists, it is recommended to implement maps with a specific rating system for each trail indicating the different levels of difficulty, ranging from leisurely to high endurance trails.

The demand of cycle tourism in the Greenbelt region of Ontario is highly evident throughout the study. This is due to the high percentage of respondents who currently utilize the Greenbelt area and recognize it as a cycle holiday destination. A significant factor to note is that health and fitness is the major motivator for cyclists in Ontario. As illustrated through the analysis portion of the report, there is also long term growth potential for the cycle tourism industry in the Greenbelt. This is due to the fact that the majority of cyclists surveyed fell within a younger age bracket of 21 – 40 years of age foreshadowing that there is a high probability that this younger generation will continue to contribute to the growth of the cycle industry. Further, with a younger generation of cyclists, tourism demand can be increased through the use of popular communication tools such as websites and social media networks. The resulting growth and popularity will create a flourishing economic value for the cycle industry. Consequently, this study has identified a high demand and gathered primary data that forecasts the positive growth potential of cycle tourism in the Ontario Greenbelt region.

7.0 REFERENCES

Bike Train. (2010). *About us*. Retrieved November 29, 2010, from http://www.biketrain.ca/about-us

BIXI Toronto. (October 19, 2010). *BIXI Toronto reaches 1,000 members!* Retrieved October 30, 2010, from http://toronto.bixi.com/upload_files/news/1000%20MEMBERS%20FOR%20THE%20TORONTO%20BIXI%20PROJECT%20VF%20ENG.pdf

BTAC - Bicycle Trade Association of Canada. (2009a). *2009 Data Capture*. Retrieved September 22, 2010, from http://www.btac.org/files/BTAC-2009_Data_Capture-Media.pdf

BTAC - Bicycle Trade Association of Canada. (2009b). *About us.* Retrieved October 25, 2010, from http://www.btac.org/about/index.html

Canadian Cycling Association. (2006). *Role of CCA*. Retrieved November 29, 2010, from http://www.canadian-cycling.com/cca/about/about_cycling.shtml

Chang Hsin, W. and Chang Hsin, L. (2003). A strategic study of bicycle tourism in Taiwan. *Journal of the Eastern Asia Society for Transportation Studies.* 5 (5), 1675 – 1676.

City of Toronto. (2010a). *Cycling in Toronto.* Retrieved October 30, 2010, from http://www.toronto.ca/cycling/network/index.htm

City of Toronto. (2010b). *Health.* Retrieved October 30, 2010, from http://www.toronto.ca/environment/health.htm#research_air

City of Toronto. (2010c). *Harbord street bikeway.* Retrieved October 30, 2010, from http://www.toronto.ca/cycling/

Dickinson, J.E., & Robbins, D. (2009). "Other people, other times, and special places": a social representations perspective of cycling in a tourism destination. *Tourism and Hospitality Planning & Development, 6*(1), 69-85.

Esakin, T. (2010). Ontario's Greenbelt in an international context. C*anadian institute for environmental law and policy*, 5-8.

European Cyclists' Federation. (2009). *What is EuroVelo?* Retrieved October 30, 2010, from http://www.ecf.com/14_1

Faulks, P., Ritchie, B., Fluker, M. (2006). Cycle tourism in Australia: An investigation into its size and scope. *Sustainable Tourism Corporate Research Centre, 5*(2), 121-132.

Fraietta, J. (2004, May). Cycle tourism research summary. Retrieved September 22, 2010, from http://www.linkbc.ca/torc/downs1/cycleTourism.pdf

Greenbelt. (2010a). *Greenbelt progress report 2010.* Retrieved October 15, 2010, from http://www.greenbelt.ca/greenbelt-progress-report-2010

Greenbelt. (2010b). *Visit Ontario's Greenbelt.* Retrieved October 30, 2010, from http://www.greenbelt.ca/visit-ontarios-greenbelt

IBM. (2010). *IBM SPSS Statistics Products*. Retrieved October 7, 2010, from http://www.spss.com/software/statistics/products/

Lafontaine. J. (2009). *2009 Bike Train Final Report.* Transportation Options.

Kuo, C.Y. (2009). *The planning and establishment of bikeway system in Taiwan.* Retrieved October 30, 2010, from http://www.sac.gov.tw/English/WebData/WebData.aspx?WDID=1947&wmid=325

London Green Belt Council. (2009). *Origins of the Green Belt.* Retrieved October 10, 2010, from http://www.londongreenbeltcouncil.org.uk/

Lumsdon, L. (2000). Transport and tourism: Cycle tourism – a model for sustainable development? *Journal of Sustainable Tourism, 8*(5), 361-377.

Lumsdon, L. & Page, S. (2004). *Transport and tourism: Issues and agenda for the new millienium*. Oxford, UK: Elsevier Ltd.

McCool, S.F., & Moisey, R.N. (2001). *Tourism, recreation and sustainability: linking culture and the environment.* United States: CABI Publishing.

Mill, R. & Morrision, A. (2002). *The tourism system* (4th ed.). United States: Kendall/Hunt Publishing Company.

Mundet, L., & Coenders, G. (2010). Greenways: a sustainable leisure experience concept for both communities and tourists. *Journal of Sustainable Tourism, 18*(5), 657-674.

Neuman, W.L. & Robson, K. (2009). *Basics of social research: Qualitative and quantitative approaches.* Pearson, Toronto.

Ontario Cycling Association. (2009). *About OCA*. Retrieved November 29, 2010, from http://www.ontariocycling.org/about-oca/

Ontario Environment Network. (2010). About us. Retrieved October 5, 2010, from http://oen.ca/index.php?page=about

Page, S. (2006). *Tourism management managing for change* (2nd ed.). Burlington, MA: Elsevier Ltd.

Pond, D. (2009). Ontario's greenbelt: Growth management, farmland protection, and regime change in southern Ontario. *Canadian Public Policy, 35*(4), 413-432.

Pucher, J. & Buehler, R. (2005). Cycling trends and policies in Canadian cities. *World Transport Policy & Practice, 11*(1), 43-61.

Richards, G., & Hall, D. (2000). *Tourism and sustainable community development*. London: Routledge.

Ritchie, B.W. (1998). Bicycle tourism in the South Island of New Zealand: planning and management issues. *Tourism Management.* 19*(6)*, 567-582.

Ritchie, B.W., Tkaczynski, A., & Faulks, P. (2010). Understanding the motivation and travel behaviour of cycle tourists using involvement profiles. *Journal of Travel & Tourism Marketing, 27*(4), 409-425.

Sustrans. (2010). *National cycle network.* Retrived October 30, 2010, from http://www.sustrans.org.uk/what-we-do/national-cycle-network

The London Green Belt Council. (2009). *The History of The London Green Belt*. Retrieved October 10, 2010, from http://londongreenbeltcouncil.org.uk/lgbc%20website/pdf/THE %20HISTORY%20OF %20THE%20LONDON%20GREEN%20BELT.pdf

Walonick, D.S. (1993). *StatPack: Everything you want to know about questionnaires.* Retrieved September 23, 2010, http://www.statpac.com/researchpapers/questionnaires.htm

Whitelaw, G.S., Eagles, P.F., Gibson, R.B., and Seasons, M.L. (2008). Roles of environmental movement organizations in land-use planning: Case studies of the Niagara Escarpment and Oak Ridges Moraine, Ontario, Canada. *Journal of Environmental Planning and Management, 51*(6), 801-816.

United Nations World Tourism Organization. (2010). UNWTO tourism highlights, edition 2010. Retrieved September 24, 2010, from http://unwto.org/facts/menu.html

8.0 APPENDIX A: PRELIMINARY SURVEY

9.0 APPENDIX B: FINAL SURVEY

10.0 APPENDIX C: CODED SURVEY