

Sault Ste.
Marie

Sudbury



LAKE HURON

NORTH CHANNEL CYCLING ROUTE STUDY



FINAL REPORT March 2013





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We would also like to acknowledge **Denis Baldwin** who developed the detailed preliminary route mapping which served as a key background source for the development of the study.

EXECUTIVE SUMMARY

The Sault Ste. Marie Tourism Company has developed a Cycling Network and Strategic Implementation and Marketing Plan to facilitate the development of a Recreational Cycle Touring Route which links the Cities of Greater Sudbury and Sault Ste. Marie as well as the communities and key touring destinations in between. The route was developed to be primarily on-road which will form a key segment of the Trans-Canada cycling route which will provide economic, tourism, health and environmental benefits for residents and visitors as part of Northern Ontario.

In April 2012, Tourism Sault Ste. Marie retained MMM Group and ^{the} Tourism Company to undertake a feasibility study to develop and refine the cycling route alignment and create a cycle touring connection primarily on lower volume roads, some sections of Highway 17 and off-road multi-use trails where possible. Throughout the study process, the study team and consulting staff consulted with residents and local stakeholders as well as representatives from the First Nations communities through which the route is proposed to pass.

In addition, a detailed field investigation both in the car and by bicycle were completed which was used to assess the opportunities and barriers associated with the proposed route. The route selection criteria developed for the study were applied to key segments and assessed for future consideration. The information gathered through the consultation and field investigation stages of the study process helped to refine the proposed route and define an implementation and marketing strategy as outlined in this Lake Huron North Channel Cycling Route Study Report.

Vision & Objectives

A vision for the cycling route was defined to help guide the route's development. The route vision is as follows:

“Develop a cycling route that is geared towards touring and recreational cyclists which connects communities between Sault Ste. Marie and Greater Sudbury as well as to connect key destination and attractions”

A set of driving factors / objectives were defined to support the vision for the Lake Huron North Channel Cycling Route which included:

- Keeping cyclists off the main Trans-Canada Highway Corridor where possible;
- Increasing demand for sustainable transportation alternatives between the urban areas and smaller communities;
- Support from municipal and tourism staff and first nations representatives; and
- Identify the potential for economic, tourism, health and environmental benefits.

Increasing Demand for Cycling Routes and Tourism in Northern Ontario

In June 2011, the Regional Tourism Organization (RTO) 8 completed and published a study entitled “Cycle Tourism Assessment and Strategy Study”. The study acknowledges the great potential for the development of more extensive cycle routes on paved roads as well as the improvement of off-road trails (e.g. the Trans Canada Trail) throughout the Province of Ontario. In addition, the report provides an assessment of existing cycle tourism trends and benefits as well as recommendations on strategies that could contribute to enhanced cycle tourism. Though specifically developed for RTO 8, many of the facts and findings can be applied to cycle tourism throughout Ontario including the Lake Huron North Channel corridor and RTO 13.

In addition, the Ministry of Transportation with the support of MMM Group, ^{the} Tourism Company and Velo Quebec undertook a study to inventory and document selected existing and previously planned cycle touring routes throughout the Province of Ontario (2011) that could be used sometime in the future as the starting point for planning a province-wide cycle touring route network. A key component of the study was a set of consultation sessions with representatives from tourism organizations throughout the Province of Ontario. Representatives from RTO 13 as well as Tourism Sault Ste. Marie were among those interviewed and asked questions pertaining to the wants and needs for cycle touring routes throughout Ontario. From these interviews significant support was expressed for the development of a cycling route along the North Channel of Lake Huron as well as increase recreational cycle tourism efforts within the Region.

More details regarding each of these studies can be found in Section 2.1 and 2.2 of the study report.

Consultation

An important component of the study process was consulting with municipal staff, local stakeholders, and members of the First Nations Communities. The involvement of these representatives was essential in creating an interest in the Lake Huron North Channel Cycling Route and to build momentum for the Route’s development. A more detailed summary of the input received can be found in Section 3.0 of the study report. A key component of the plan was a series of three workshops with tourism operators, municipal representatives and interest groups as determined by the Study Steering Committee. The purpose of the workshop sessions was to introduce the route concept and gather input based on discussions with stakeholders regarding route development and implementation. Consultations with eight (8) First Nation stakeholders in Lake Huron North Channel corridor, including Chiefs of seven (7) First Nation communities and the CEO of the North Shore Tribal Council were sought out, but formal consultations have not yet occurred.

As part of the study to develop the Lake Huron North Channel Cycling Route, a web-based questionnaire was developed and hosted using the online service SurveyMonkey (www.surveymonkey.com). The questionnaire was posted in May 2012 and concluded July 2012. The questionnaire, although not statistically valid, provided the study team with useful public and stakeholder input regarding routing and facility type alternatives. In total there were 155 responses provided.

Without exception, results from the consultation methods indicated significant support for the development of the Lake Huron North Channel Cycling Route concept. Most respondents understand the potential economic benefits to communities and businesses which could result from an increase in cycle tourism. Some visionaries see the route as the first step in a bicycle tourism route spanning North Ontario from Quebec to Manitoba.

The Recommended Lake Huron North Channel Cycling Route

The Lake Huron North Channel Cycling Route was developed using a detailed description of the proposed route provided by Tourism Sault Ste. Marie which was originally presented at the Northern Ontario Bike Summit in 2011. Using this information, the study team created the route in GIS which was used throughout the study process to refine the route. In order to refine and develop the cycling route for the Lake Huron North Channel, the study team undertook a detailed field investigation applying specific route selection criteria and ranking individual route segments. The segments which were assessed included the following:

- Gros Cap to Sault Ste. Marie
- Hiawatha Highlands to Sault St. Marie
- Sault Ste. Marie Waterfront to Highway 18B,
- Highway 17B to Echo Bay
- Echo Bay to Bruce Mines, Routes A & B
- Bruce Mines to Little Rapids and Thessalon
- Thessalon to Iron Bridge
- Iron Bridge to Blind River, Routes A & B
- Blind River to Algoma Mills
- Algoma Mills to Spanish
- Spanish to Espanola
- Espanola to Nairn Centre
- Nairn Centre to Whitefish
- Whitefish to Sudbury West/Sudbury West to Sudbury Centre, Routes A & B

A detailed summary of the findings from the field investigation can be found in Section 4.3 and Appendix B of the study report. Using the facility type guidelines outlined in section 4.4 of the study report, the proposed route may consist of a number of on and off-road cycling facilities including signed-only cycling routes on local roads, signed-only cycling routes with wide curb lanes, signed cycling routes with sharrows, signed cycling routes with paved shoulder, bicycles lanes, in-boulevard cycling facilities within the road right-of-way and multi-use trails outside of the road right-of-way. Through assessment of the preliminary routes considered, the study team has identified the primary recommended route (such as Routes A found in Section 4.0 of the Report) and in some cases a secondary alternate route (such as Routes B found in Section 4.0 of the Report).

Maps 4-1 through 4-7 (Found in Section 4.0 of the Report) illustrate the recommended Lake Huron North Channel Cycling Route. The maps include the recommended route (red), several alternate routes (yellow) and links to key destinations and points of interest nearby the recommended route (purple). Wherever possible and practical the recommended route follows local low-volume roads and local trails that connect towns, hamlets and key points of interest between Sudbury and Sault Ste. Marie. However, there are several sections of Highway 17 that are part of the recommended route, where there are no alternative routes available or where following Highway 17 better satisfies the route selection criteria than the alternative route(s) identified.

The westerly terminus of the Lake Huron North Channel Cycling Route is at the Roberta Bondar Pavilion on the in Sault Ste. Marie waterfront and the eastern terminus is at Science North on Ramsey Lake in Sudbury. Linking west towards Thunder Bay, south to Sault Ste. Marie Michigan and Manitoulin Island, and east towards North Bay are logical future connections that could be explored as part of a broader cycling route network.

A few points of interest along the recommended Lake Huron North Channel Cycling Route include:

- Gros Cap
- The waterfront, John Rowswell Hub Trail, Bush Plane Museum and Hiawatha Highlands Conservation Area in Sault Ste. Marie
- The Iron Bridge Museum
- The Blind River waterfront
- Science North, Ramsey Lake and downtown Sudbury
- The Massey Area Museum
- Numerous spectacular views of the Mississagi River, Spanish River, North Channel and the La Cloche Mountains
- The Lee Valley area

In addition to the recommended primary route a number of links to nearby destinations include St. Joseph Island, Towns of Bruce Mines and Thessalon, Manitoulin Island, Chute and Fairbanks Provincial Parks and downtown Greater Sudbury.

Appendix C provides a detailed list of individual segments that comprise the primary route along with recommendations for each regarding bicycle facility improvements.

Implementing & Marketing the Plan

A two-phase implementation plan was developed and is recommended for the Lake Huron North Channel Cycling Route to transition from the completion of this feasibility study to full operation of the route. The implementation strategy includes the following key steps:

	Phase 1	Phase 2
Objective	<ul style="list-style-type: none"> • To formally secure the necessary support of key stakeholder for the Cycling Route and its implementation; and • To establish an organization that will be responsible for coordinating the capital development, marketing and ongoing maintenance of the Cycling Route. 	<ul style="list-style-type: none"> • To prepare capital development and marketing plans based on the recommendations in this report; • To coordinate the implementation of the capital development and marketing plans; • To coordinate the ongoing maintenance and upkeep of the Cycling Route; and • To monitor and report on the use and related regional economic benefits generated from development and operation of the Cycling Route
Tasks for Consideration	<ul style="list-style-type: none"> • Task 1: Establish Temporary Working Group • Task 2: Public Validation & Consultation • Task 3: Memorandums of Agreement • Task 4: Establish Coordinating Agency 	<ul style="list-style-type: none"> • Task 1: Prepare Capital Development and Marketing Plans • Task 2: Coordinate Implementation of Capital Development and Marketing Plans • Task 3: Coordinate Ongoing Maintenance and Upkeep of the Route • Task 4: Monitor and Report on Route Use and Related Regional Benefits

The Marketing Strategy identified in this study report identifies potential marketing activities recommended for inclusion as part of a future marketing plan to be prepared by the Coordinating Agency. The marketing strategy identifies six key areas that could be focused on, which include:

- Brand;
- Signs;
- Maps;
- An Online Presence;
- Product Development; and
- Print Listings & Advertisements.

For further details on both the implementation and marketing strategies please refer to Section 5.0

The Investment

The total infrastructure investment is estimated to be \$10,146,850 (\$12,176,220 including a modest 20% for design and other contingencies). Based on similar models for multi-jurisdictional cycling routes such as the Lake Ontario Waterfront Trail it is assumed that each local authority would be responsible for implementing the recommended signage and roadway/trail improvements within their jurisdiction and the Ministry of Transportation would be responsible for the cost of shoulder paving along sections of provincial highways that form part of the recommended route. Table EX-1 provides a high-level cost estimate to develop the infrastructure along the route.

The other main costs include:

- A one-time cost of for preparing the Capital Development Plan – estimated at \$75,000
- Preparation and maintenance of Memoranda of Agreement - estimated at \$25,000/yr
- Development, launch and ongoing maintenance of the Marketing Plan – estimated at \$50,000 per year for the first 2 years, and \$35,000K annually thereafter

The Benefits – Why Invest?

For host communities, tourism is an economic activity with economic benefits in the form of contribution to gross domestic product, generation and support of jobs, and taxes paid to municipal, provincial and federal governments. When tourism is sustainable, the economic benefits are realized in combination with environmental and social/cultural stewardship. This “triple bottom line” results in an enhanced quality of life for host community residents as well as an authentic visitor experience for tourists.

The proposed Lake Huron North Channel Cycle Route(s) represents a sustainable tourism development initiative that will benefit tourists and residents across a wide swath of Northern Ontario, from Sault Ste. Marie to Sudbury along the north shore of Lake Huron. These benefits will include:

- Establishment of an international cycle tourism destination – link the cities of Sault Ste. Marie and Greater Sudbury as well as communities located between these two centres in a shared tourism development initiative with the potential to brand the region as an international cycling destination.
- Increased regional tourism economic benefits – as a branded international cycle tourism destination, new cycle tourist spending will be attracted to the region.
- Increased safety of cycling activities along the North Shore -- by providing an attractive, compelling cycling experience that redirects cyclists off the Main Trans-Canada Highway Corridor between Sault Ste. Marie and Greater Sudbury, and when that is not possible, provides appropriate cycling facilities along this corridor.

- Enhanced regional quality of life – use of the Route(s) by regional residents for recreation and for transportation between communities would facilitate increased physical activity and its related health and fitness benefits, while replacing some motorized travel with bicycles thus reducing air pollution and greenhouse gas emissions.
- Contribution to a regional Northern Ontario economic development strategy – success from implementing this shared, regional economic development initiative bringing together cities, towns, townships and First Nation communities can provide a model and platform for additional projects and initiatives.

1.0 INTRODUCTION

1.1 What is the Lake Huron North Channel Cycling Route?

The Lake Huron North Channel Cycling Route is envisioned as a primarily on-road cycling touring route that will connect communities and area tourist destinations from Sault Ste. Marie to Sudbury. When completed this cycle touring route will form a key segment of the Trans-Canada cycling route as well as connect key destinations and attractions and provide economic, tourism, health and environmental benefits for residents and visitors to this part of Northern Ontario.

The concept for the Lake Huron North Channel Cycling Route was first conceived by local cyclists and interest groups which culminated in a presentation made by Tourism Sault Ste. Marie at the Northern Ontario Bike Summit in 2011.

Building on the significant support for this project, Tourism Sault Ste. Marie, with funding support from the Ontario Trillium Foundation selected to undertake a study to assess the feasibility of a Lake Huron North Channel Cycling Route.

In April 2012, Tourism Sault Ste. Marie retained MMM group and ^{the} Tourism Company to undertake a feasibility study to develop and refine the cycling route alignment and create a cycle touring connection primarily on lower volume roads, some sections of Highway 17 and off-road multi-use trails where possible.

1.2 Study Vision & Objectives

There were a number of driving factors behind the development of the initial route and the subsequent refinement of the route through this study that has led to the recommended Lake Huron North Channel Cycling Route. These factors included:

- Keeping cyclists off the main Trans-Canada Highway Corridor where possible;
- Increasing demand for sustainable transportation alternatives between the urban areas and smaller communities;
- Support from municipal and tourism staff and first nations representatives; and
- The potential for economic, tourism, health and environmental benefits.

The overall vision is to develop a cycling route geared towards touring and recreational cyclists which connects communities between Sault Ste. Marie and Greater Sudbury as well as to connect key destinations and attractions. In addition, the route will be designed to create economic, tourism, health and environmental benefits for residents and visitors alike through the sustainable development of a northern Ontario cycle touring route that would parallel the Trans-Canada Highway.

1.3 Who are the Route Users?

In order to develop a route which accommodates the needs of its expected users, it is important to define the user groups and types of activity which would take place along the route. Cycle Tourism is defined as recreational cycling activity by visitors in or to destinations, including short and long distance riding, as well as same day and multi-day riding. A recent 2011 study completed by the Province of Ontario outlined a set of defining characteristics for long and short distance touring cyclists based on consultation with stakeholders and interest groups¹. The following table, **Table 1.1** outlines these user groups.

Table 1.1 Recreational and Touring Cyclist Groups		
Characteristics	Long Distance Recreational Touring Cyclists	Short-Distance / Local Community Recreational Touring Cyclists
Type of User	Long-distance recreational touring cyclists are typically engaged in multi-day touring trips and are willing to spend money on accommodations and food. These cyclists are typically avid riders who are generally receptive to exploring new routes and trails.	Short-distance recreational touring cyclists are typically interested in undertaking trips to provide access to scenic attractions, points of interest, historical sites and key community destinations for recreational purposes such as community centres or local parks which can be undertaken in a day or less. These cyclists are typically interested riders who often cycle but are wary of the route and terrain on which they ride. Cyclists are often looking to rent / borrow bicycles at their destination.
Trip Length	Multi-day trips of 2 days or more.	1 day or less (typically do not stay overnight). Sometimes multiple excursions of less than a day each during extended stays at a destination.
Type of Routes Used	<ul style="list-style-type: none"> • Connecting Key Geographic Areas; • Accessing American Routes across the border; • Long Distance Routes (e.g. Waterfront Trail); • Loop or Circle Routes; and • Routes which facilitate cross provincial touring routes and access to bordering Provinces (e.g. Quebec and Manitoba). 	<ul style="list-style-type: none"> • Connections to local destinations (i.e. community centres or schools); • Connections to segments of existing cycling routes (i.e. the Waterfront Trail); and • Areas of Local Natural Beauty.

¹ Data Inventory of Cycling Routes throughout Ontario. Ministry of Transportation Ontario (MTO). 2011.

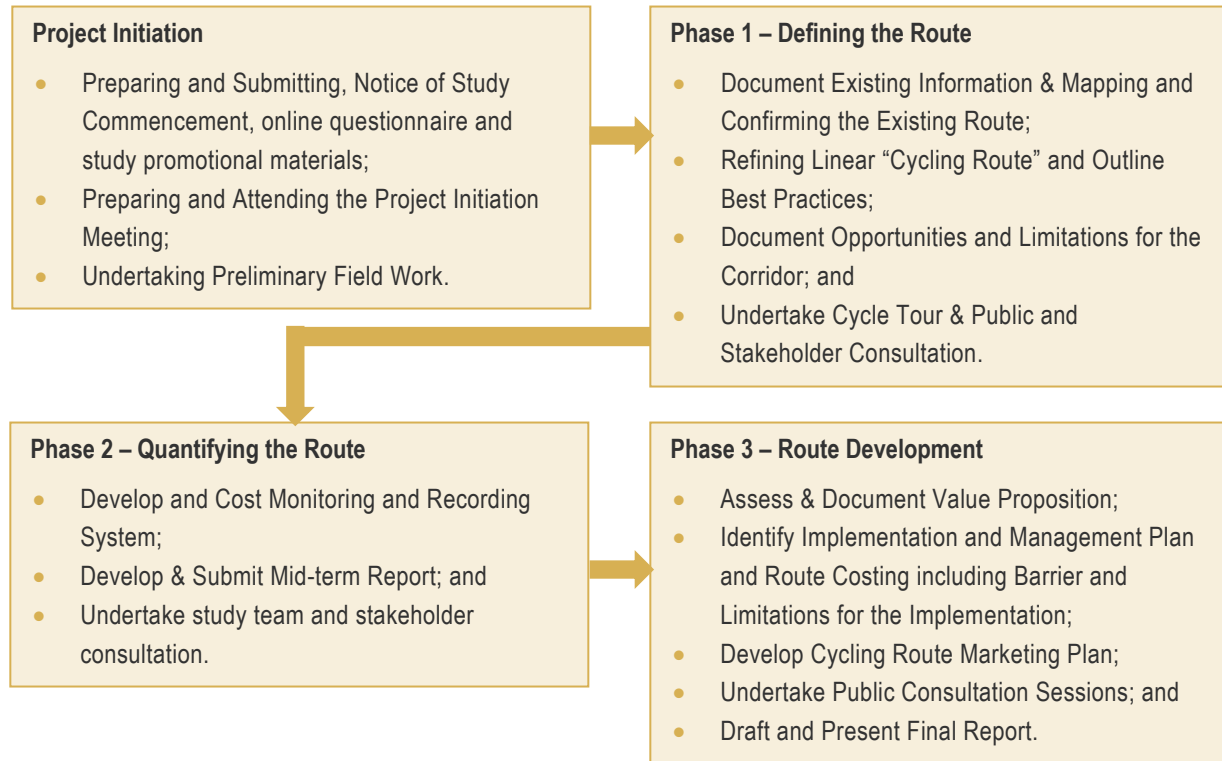
Table 1.1 Recreational and Touring Cyclist Groups

Characteristics	Long Distance Recreational Touring Cyclists	Short-Distance / Local Community Recreational Touring Cyclists
Amenities Accessed	<ul style="list-style-type: none"> • Daily Food and Drink; • Housing / Accommodations for multi-night stays; • Complementary transportation (i.e. public transit or the Bike Train); • Destination signage and Distance Markers; • Local Maps and Touring Information; • Detailed information on trail / route conditions, such as surface type, physical barriers, trail width, etc., for trip planning; • Emergency Response Providers; • Guides and trip support such as luggage transfer; • Secure bicycle storage at overnight stays; and • Bike / Repair Shops. 	<ul style="list-style-type: none"> • Food and Drink; • Signage and destination markers; • Emergency Response providers; • Local Maps and touring information; • Rental or loaner bicycles; and • Access to alternatives modes of transportation (i.e. public transit or parking).

This information on cycle touring and users was used to inform and guide the study team in the review and assessment of the proposed route.

1.4 Study Process & Report Structure

A study approach was developed by the MMM Group and the Tourism Company which builds upon and integrates the work previously developed, confirms the route alignment and develops a business, marketing and implementation plan for the sustainable development of the route. The study approach included the following phases and tasks:



The Lake Huron North Channel Cycling Route Study Report is meant to be a guiding document to be used by Tourism Sault Ste. Marie and its partners including those who will ultimately be responsible for the route’s implementation in the short and long-term. It is intended to build upon the existing route concept while providing facility design, routing and promotion and marketing options for consideration in the future. Implementation of the route is aimed at providing recreational and touring cyclists with safe and sustainable transportation alternatives between two key urban centres connecting communities and local tourism destinations along the North Channel of Lake Huron. The report includes the following sections:

Section 1.0 provides an overview of the study and its objectives, defines the potential users groups which would be accommodated on the route and outlines the study process which was developed and undertaken by the study team to develop the Lake Huron North Channel Cycling Route and associated strategies and plans.

Section 2.0 sets out the justification for developing the route including emerging trends for cycle tourism for the Province of Ontario and the areas within northern Ontario, supportive policies and plans as well as the benefits associated with an investment in cycle tourism infrastructure.

Section 3.0 provides an overview and summary of the input gathered from the consultation events held throughout the study process.

Section 4.0 outlines the approach used to develop the Lake Huron North Channel Cycling Route as well as the final proposed route and an overview of potential facility types and design guidelines for consideration developing the route.

Section 5.0 outlines the proposed implementation strategy. It defines the implementation schedule and route priorities identified by the study team as well as the cost associated with route development and potential partnership and funding alternatives. The chapter also defines a marketing and management strategy and monitoring system for future promotion and documentation.

Section 6.0 is a summary of the recommendations outlined throughout the report as well as concluding.

Appendix A is a summary of the consultation materials used and information gathered at public information centres and stakeholder workshops.

Appendix B provides an assessment of the proposed route and alternative route segments, using information gathered from field investigations.

Appendix C outlines the individual segments that comprise the primary route as well as recommended facility improvements.

Appendix D provides a series of maps that illustrate the proposed route by facility type and identifies segments where road improvements (in addition to route signing) are proposed.

2.0 ESTABLISHING THE NEED

2.1 Cycling Tourism Trends in Ontario

In June 2011, the Regional Tourism Organization (RTO) 8 completed and published a study entitled “**Cycle Tourism Assessment and Strategy Study**”. The study acknowledges the great potential for the development of more extensive cycle routes on paved roads as well as the improvement of off-road trails (e.g. the Trans Canada Trail) throughout the Province of Ontario. In addition, the report provides an assessment of existing cycle tourism trends and benefits as well as recommendations on strategies that could contribute to enhanced cycle tourism. Though specifically developed for RTO 8, many of the facts and findings can be applied to cycle tourism throughout Ontario including the Lake Huron North Channel corridor and RTO 13. The following are some of the key findings from this study.

- A number of reports have been released, both in Canada and internationally which show that there is a growing and affluent market for bicycle related tourism.
- Based on a survey of Bike ON Tours clients in the 1990s cycling tourists were primarily age 30 to 55 (www.bikeontours.on.ca/tourism.htm) while VeloQuebec research report “Bicycling in Quebec 2005” reported the “over the past decade, the rate of cycling has remained stable among 35 – 54 year olds, while the rate among the 55 – 64 age group has increased substantially from 34 to 43%. However, the most spectacular increase has been among 65 – 74 year olds, with the proportion of active cyclists more than doubling in 10 years jumping from 12 to 25%.”
- The survey from Bike On Tours showed that most cycling tourists had professional – white collar jobs with annual incomes of over \$60,000. 47% had annual incomes of \$60,000 to \$80,000, or 18% has annual incomes of over \$80,000.
- Other recreational activities enjoyed by cyclists when tourism include eating out, canoeing, camping, hiking, theatre, shopping, museums / historic sites, water sports/ swimming / beaches in declining order of frequency while other interests mentioned include sightseeing, golfing, skiing and walking according to Bike On Tours survey.

In addition to the growing trends for cycle tourism there is a significant argument for the economic benefits associated with increasing the number of cyclists. It is important to note that “cyclists often travel to scenic rural areas that are otherwise not developed as tourist areas, support rural accommodation providers, stores and other services with little or no environmental impact”. In 2000, the annual amount spent by cyclists traveling on the Route Verte totaled \$95.4 million which represents 2,000 jobs (person years) and revenues of \$15.1 million for the government of Quebec and \$11.9 million

for the government of Canada. Cycle tourists spent 57% of the money associated with the use of the Route Verte or a total of \$54.6 million. In addition, people who live near the route also spend a considerable amount of money on route related activities. In 2003 the Road World Cycling Championships were held in Hamilton, ON between October 6 and October 12 and this event is estimated to have generated a total estimated economic activity of \$48.3 million in the province including \$31.1 million in the Hamilton Region and an additional \$17.2 million for other regions which resulted in a significant contribution to the provincial GDP, an increase in jobs, wages and salaries as well as a significant increase in the number of visitors.

Lastly, the Cycle Tourism Assessment and Strategy Study document also provides an overview of current tourism trends and cycle tourism which includes general trends which would need to be considered in the development of routes which are meant to increase cycle tourism. They include:

- People are increasingly planning their own holiday and making extensive use of internet resources to plan and undertake their vacations;
- Travelers expect to be able to find all the information that they need in one place;
- Comfort and convenience are top decision priorities;
- Activities and events are a significant draw for cycling tourists; and
- There is a growing demand for unique and culturally authentic travel that preserves the ecological and cultural environment and is differentiated from previous and more stereotypical experiences.

2.2 Increasing Demand for Cycling and Trail Tourism in Northern Ontario (RTO 13)

In 2011, the Ministry of Transportation with the support of MMM Group, ^{the} Tourism Company and Velo Quebec undertook a study to inventory and document selected existing and previously planned cycle touring routes throughout the Province of Ontario that could be used sometime in the future, as the starting point for planning a province-wide cycle touring route. A key component of the study was a set of consultation sessions with representatives from tourism organizations throughout the province of Ontario. Representatives from RTO 13 as well as Tourism Sault Ste. Marie were among those interviewed and asked questions pertaining to the wants and needs for cycle touring routes throughout Ontario. The results were summarized and the following are some of the key points and findings which are being considered throughout the development of the Lake Huron North Channel Cycle Route.

Overarching themes from the interviewees noted that the cycling experience is the primary attractor for cycle tourists throughout Northern Ontario and that a cyclist's safety is also a highly influential and determining factor for user groups. Despite safety concerns due to heavy traffic and unavailable paved shoulders, provincial highways are most often used by cyclists in northern Ontario Cities and Towns such as Sault Ste. Marie and Greater Sudbury as there are few if any parallel alternatives. It is important to note that concerns regarding cycling and trail safety need to be addressed in tourism development strategies. A significant barrier for cycle tourism within the study team is the large distance between cycling supportive services along key cycling route as well as local communities. Inaccessibility of support services and the lack of available and convenient cycle touring information is addressed through RTO 8's study, documented above. To mitigate this, the report recommends that communities throughout the Province of Ontario develop cycle tourism strategies.

The following are some route specific considerations for cycle tourism which were brought up through the interview sessions.

Current Cycling Visitors	
<ul style="list-style-type: none"> • Touring cyclists within the area are primarily visiting as part of a larger tour e.g. cross Canada or Ontario. • Many cycle tourists are passing through from the US or through the Province to Quebec. • There is a potential for major Cities as well as local organizations to market existing trails e.g. the Sault Ste. Marie Hub Trail & the Trans Canada Trail. 	
Main Destinations:	Points of Interest:
<ul style="list-style-type: none"> • Opportunity to provide cycling routes alongside the Algoma Central Railway and to develop a “Bike Train” network accessing wilderness routes. • The HUB Trail links tourist destinations such as the Agawa Canyon Tour Train, Canadian Bush Plan Heritage Centre, Parks Canada Canal and the Ermatinger Clergue National Historic Site. • The HUB trail provides connections to several accommodations, retailers and dining opportunities. • Riverside Park and Visitor Information Centres along key routes. 	<ul style="list-style-type: none"> • Sault Ste. Marie HUB Trail; • Trans Canada Trail; • Trans-Canada Highway east of Sault Ste. Marie; and • North Channel Trail from Sault Ste. Marie to Sudbury.
Heaviest Trail Use:	Barriers:
<ul style="list-style-type: none"> • Downtown near the waterfront along the HUB Trail; and • Sections of the Trans Canada Trail System. 	<ul style="list-style-type: none"> • Marketing of the existing trail system; • Consistent Signage; • Access to cyclist amenities; and • The perception of safety for on-road cyclists.
Potential Route Development Options:	Signage & Maintenance Considerations:
<ul style="list-style-type: none"> • Proposed Lake Huron North Channel Cycling Route between Sault Ste. Marie and Greater Sudbury. 	<ul style="list-style-type: none"> • Significant Cost associated with rebranding, possibility of integrating existing as well as new signage; • Focus on information, and consistent marketing; and • Winter maintenance is not considered an issue with the exception of maintenance along the waterfront and segments of the route.

One of the key outcomes of the study was a set of proposed route priorities for future consideration by the Province of Ontario. The Lake Huron North Channel Cycling Route along Highway 17 was one of these routes.

2.3 Supportive Policies & Plans

2.3.1 The City of Greater Sudbury

The City of Greater Sudbury released a report in November 2012 titled, The City of Greater Sudbury Official Plan. The purpose of the official plan was to provide goals and policies that manage effects on natural, social and economic environments over an extended period of time and further promote beneficial changes to the City as a whole. The official plan develops policies which implement efficient and well-designed transportation links connecting living areas, employments areas and other important areas. The report addresses the need to integrate well designed sidewalks, bike lanes, bike paths and sidewalks into the transportation system, providing users with safety and accessibility while further encouraging economic development opportunities. Discussed policies and plans to develop and redevelop transportation networks are listed below:

- Existing networks will be expanded through additional pedestrian walkways, trails and bikeways and adequate signage.
- Development proposals will be assessed and encouraged to provide pedestrians with access in new developments. The City may acquire lands to provide pedestrian facilities as a condition of approval.
- Bicycle facilities for development and redevelopment of roads will be assessed upon safety, potential usage, costs and connectivity to major employment, educational and recreational centres.
- Good road design practices should achieve a maximum level of separation between pedestrians and cyclists for motor vehicle traffic.
- To promote a safe pedestrian environment and access to other transportation linkages the policies of the Official Plan should provide the following:
 - Sidewalks on both sides of urban Arterial Roads and Collector Roads
 - Sidewalks on at least one side of Local Roads
 - Pedestrian connections to transit
 - Pedestrian connections between neighbourhoods
 - Pedestrian linkages to major attractions
- Sidewalks should accommodate the mobility of peoples with disabilities.
- Barrier free design of pedestrian facilities will be required through the site plans.
- Updating the Bicycle Advisory Committee Reference Manual and develop a bicycle network plan.
- Specific attention to community centres, educational centres and linkages between communities / schools / neighbourhoods when expanding existing networks.
- City owned parks and buildings will provide bicycle storage facilities. Other public or private development will be encouraged to provide such facilities.
- Public awareness of commuter walking and cycling will be promoted.

2.3.2 The City of Sault Ste. Marie

The Official Plan for the City of Sault Ste. Marie includes policies that manage the change of social, natural and economic environments within a community. Policies reviewed in the Official Plan are reflective of the City's goals, to which the current needs of community members and future developments are expressed. Through consideration of development strategies for the City, policies will address future plans to further implement active transportation modes.

The Official Plan has identified initiatives to encourage the development and redevelopment of pedestrian travel through the City. Implementation of pedestrian travel will include the use of sidewalks on local, collector and arterial roads, whereby pedestrian and vehicular traffic should be separated. Bicycle routes and facilities will be implemented into the City's transportation system and new development with consolidation of Sault Ste. Marie's Cycling Master Plan. Additional policies addressed in the City's Official Plan report address the implementation of recreational transportation systems using multi-use trails and shared trails. Policies to encourage the development of multi-use and shared trails promote the benefits of recreational and economic opportunities in the City and Region.

2.3.3 Municipalities within the Algoma District

The Algoma District is made up of a number of towns and townships. Each of these communities has developed policies including Official Plans, which provide guidance on social, economic and environmental growth and development. The study team undertook a policy review of the municipalities within the Algoma District which are found along the Primary Lake Huron North Channel Cycling Route Corridor. Each of the policies and plans have been reviewed to assess their support for the development of the Cycle Touring Route as well as their overall support for the development of cycling and / or trail related tourism initiatives and programs. The municipalities with applicable plans and policies include:

- Township of Prince;
- Township of Macdonald, Meredith and Aberdeen Additional;
- Township of Laird;
- Township of Tarbutt and Tarbutt Additional;
- Township of Johnson;
- Township of Plummer Additional;
- Township of Bruce Mines;
- Town of Thessalon;
- Municipality of Huron Shore;
- Town of Blind River;
- Township of The North Shore;
- Town of Spanish; and
- Town of Sables – Spanish River.

The plans assessed from the list above include:

- Township of Johnson Official Plan (2009);
- Township of Bruce Mines Official Plan (2012);

- Municipality of Huron Shores Official Plan (2011);
- Town of Blind River Accessibility Plan (2011/2012);
- Township of Sables – Spanish Rivers Official Plan (2010); and
- Township of Sables – Spanish Rivers Strategic Plan for Economic Development 2011-2016.

The policies and objectives addressed in these reports each promote recreation, tourism and economic benefits through the implementation and development of multi-use trails. In addition, they also support an overall increase in connectivity between local communities using alternate forms of transportation, including but not limited to cycling. From this, it can be assumed that a vast majority of the municipalities which the proposed Cycling Route would pass through would be supportive of the development of this initiative as it reflects / supports overall community objectives and strategies. In addition to the plans identified above, the Algoma District implemented the East Algoma Economic Development Strategic Plan in June 2012 which will be used to guide and promote the growth of regional tourism and economic development throughout the area Regional Tourism Organization (RTO13). The Strategic Plan has identified initiatives which could be used to encourage the development of recreational activities and increase accessibility to local attractions to provide connections to potential tourists and communities. This overarching goal is consistent with those goals and objectives identified for the development of the Lake Huron North Channel Cycling Route.

2.4 Supportive Organizations

2.4.1 Canadian Trail Organizations

The Trans Canada Trail Organization is a not-for-profit organization which promotes and assists in the development and use of the Trans Canada Trail in every province and territory across Canada. The Organization also provides funding to local trail builders to support the development of trails throughout their towns, communities etc. Today there are more than 16,500 km of Trans Canada Trail which have been developed. Ultimately, the trail is proposed to span 22,000 km linking 1,000 communities.

In addition to the Trans Canada Trail Organization, Canada Trails is an organized directory of trail sports which facilitate self-propelled activities including information on trails, clubs, events and related services. In addition, mapping is also provided to illustrate the location of major trails as well as trail listings including ratings submitted by visitors to the trails. This catch-all website and organization provides more specific details on:

- Bicycling including road routes, city biking, clubs and tours;
- Mountain Biking including mountain biking trails and events;
- Hiking including hiking trails and clubs;
- Multi-use Trails including the 15,000 km of Trans Canada Trail and other multi-use recreation trails;
- Cross Country Skiing including details on more than 500 ski areas, plus clubs and events;
- Guide Services including companies offering guided outdoor activities and outdoor program; and
- Lodging including accommodations located in tranquil settings and offering easy access to outdoor activities.

Currently, portions of the Trans-Canada Trail run between the Cities of Greater Sudbury and Sault Ste. Marie and consist of operational land trails, proposed land trails as well as proposed water routes. The existing trails intersect with Highway

17 within the Township of Spanish and just outside of the Municipality of Iron Bridge and also provide a key connection / loop route throughout Sault Ste. Marie. The proposed connections including land trails and water routes will ultimately be developed to the south of Highway 17 to connect up to the City of Greater Sudbury. The organization has recently developed an interactive online mapping tool which facilitates route planning and provides users with a tool which can be used to assess, explore and search cycle / trail touring alternatives along the Trans Canada. The tool can be access on the organization’s website or directly at: <http://tctrail.ca/explore-the-trail/>.

2.4.2 Ontario Based Trail Organizations

The Ontario Trails Council (OTC) is a not for profit organization that promotes the development of trails throughout Ontario. The Trillium Trail Network (TTN) is an initiative of the Ontario Trails Council that represents an opportunity for trails to link together between regions and communities in Ontario. The Trillium Trail Network consists of Ontario Trails Council member trails registering their trail as a system member. The Trillium Trail Network is designed to be a province-wide system of trails. Overall, the Trillium Trail Network works to:

- Make Ontario a more attractive place to live and visit;
- Promote trail travel and tourism;
- Increase the number of trails available for use;
- Improve trail management as Trillium Trail Network trails will work to implement accepted trail standards;
- Promote ecological conservation;
- Provide access to local history and community culture; and
- Promote accessibility for persons with disabilities.

2.4.3 Local Cycling and Trail Clubs & Organizations

There are a number of cycling and trail organizations and clubs which can be found within the local communities along the route. The organizations represent both interest groups who advocate the development of trail and cycling facilities throughout major cities and communities as well as trail organizations who are responsible for the promotion and maintenance of local trails and cycling routes. The following are the key organizations and groups who would likely be supportive of the Lake Huron North Channel Cycling Route initiative.

City of Sault Ste. Marie	City of Greater Sudbury
<ul style="list-style-type: none"> • Voyageur Trail Association: 	<ul style="list-style-type: none"> • Sudbury Cyclists Union:
<ul style="list-style-type: none"> • Sault Naturalists: 	<ul style="list-style-type: none"> • Sudbury Trail Plan Association:
<ul style="list-style-type: none"> • Take Heart Algoma 	<ul style="list-style-type: none"> • Rainbow Routes Association
<ul style="list-style-type: none"> • Sault Cycling Club 	<ul style="list-style-type: none"> • Sudbury Cycling Club

2.5 Community Benefits & Impacts

Cycling activities provide significant health and fitness, transportation, environmental, economic and tourism benefits. Municipalities throughout the Province of Ontario are implementing initiatives to promote and encourage active transportation including cycling activities as a viable alternative to the private automobile for short-distance trips and as a method of promoting a more active and healthy lifestyle.

The following provides an overview of some of the key benefits associated with the development of active transportation including cycling and is organized to highlight current research and trends in the field of active transportation (pedestrian and cycling). Best practices and lessons learned are presented to demonstrate specific benefits which have been experienced by communities throughout Canada.

2.5.1 Health & Fitness Benefits

2.5.1.1 Research & Emerging Trends

Municipalities in Southern Ontario and throughout North America are implementing initiatives to promote and encourage active transportation activities as a method of promoting a more active and healthy lifestyle. Studies have shown that people who use active transportation are, on average, more physically fit, less obese and have reduced risk of developing cardiovascular disease. Physical activity such as walking and cycling is further noted to reduce the symptoms of mental illnesses. Similar to meditation or relaxation, physical activity may reduce the symptoms of depression, anxiety and panic disorders².

- In 2001, approximately \$2.8 billion was spent on health care due to physical inactivity in Canada, which could be reduced by \$280 million if physical activity was increased by 10%³.
- If all Canadians followed the current recommendations for physical activity, it is estimated that 33% of all deaths related to coronary heart disease, 25% of deaths related to stroke, 20% of deaths related to Type 2 diabetes and 20% of deaths related to hypertension could be avoided⁴. (Warburton DER et al. 2007)
- Increase physical activity such as walking and cycling may reduce the obesity rates in Canada. Low physical activity rates are a key factor in Canada's high overweight and obesity rates, as nearly 60% of adults and 26% of children are currently overweight or obese⁵. (Ottawa: Statistics Canada 2005).
- Research has shown that the risk of obesity goes up 6% for every hour spent in a car each day, while the risk of obesity goes down by almost 5% for every kilometre walked every day⁶. (McCann, Barbara, et al. 2003)

A 2012 report from the City of Toronto's Public Health Division concluded that the implementation of active transportation routes and facilities has very important health benefits to improve quality of life⁷. Some of the key findings include:

² Toronto Public Health. Road to Health: Improving Walking and Cycling in Toronto. 2012

³ The Business Case for Active Transportation, Better Environmentally Sound Transportation - BEST, Go for Green, March 2004

⁴ Heart and Stroke Foundation. Shaping Active, Healthy Communities.

⁵ Heart and Stroke Foundation. Shaping Active, Healthy Communities

⁶ Heart and Stroke Foundation. Shaping Active, Healthy Communities

⁷ Toronto Public Health. Road to Health: Improving Walking and Cycling in Toronto. 2012

- Reduced risk of cardiovascular disease, incident coronary heart disease, stroke and hypertension;
- Prevention of the occurrence of Type 2 Diabetes;
- Reduced overall risk of cancer, particularly colon cancer and breast cancer. Physical activity has been found to reduce the overall risk of colon cancer by 24%; and
- Reduced rates of motor-vehicle collisions.

It is important to note that the development of Towns, Cities and Counties / Regions that promote walking and biking tend to be healthier, more user-friendly and efficient for individuals of all ages, specifically children. Active Transportation (AT) friendly communities tend to be “better places to grow up in that they allow children a certain degree of autonomy essential to their development. Being able to go to daily destinations like school on foot or by bike allows young people to discover and experience their neighbourhood” in a more active and health oriented manner⁸.

2.5.1.2 Case Study: Neighbourhood Design, Travel and Health in Vancouver, BC

The study “Neighbourhood Design, Travel and Health” was conducted in the Vancouver metropolitan area to measure the impacts of a neighbourhood’s walkability on physical activity, fitness and automobile travel. Key findings from the study project include⁹:

- Residents living in the 25% most walkable neighbourhoods walk, bike and take transit nearly 3 times more and drive approximately 58% less than residents in auto-oriented areas.
- Residents in the most walkable areas, with good street connectivity and land use mix, were half as likely to be overweight than those in the least walkable neighbourhoods.
- Living in a neighbourhood with at least one grocery store was associated with nearly 1.5 times likelihood of getting sufficient physical activity, compared to areas without grocery stores. Each additional grocery store within a 1-kilometer distance from an individual’s residence was associated with an 11% reduction in the likelihood of being overweight.



Source: www.vancouver.ca



Source: www.geoffmobile.com



Source: www.meetup.com

⁸ Bassett, D.R., et al. “Walking, Cycling and Obesity Rates in Europe, North America and Australia.” *Journal of Physical Activity and Health*. 2008 (5): p. 795 - 814

⁹ Frank, L, Devlin, A et al. “Neighbourhood Design, Travel and Health in Metro Vancouver: Using a Walkability Index”. University of British Columbia. October 2010.

2.5.2 Safety Benefits

2.5.2.1 Research & Emerging Trends

With regard to cycling and pedestrian safety, a report completed by Bueler & Pucher (2011) states that “Cycling safety is an important determinant of cycling levels. The causation probably goes in both directions. Several studies confirm that increased cycling safety encourages more people to cycle. Conversely, the concept of ‘safety in numbers’ proposes that, as more people cycle, it becomes safer because more cyclists are more visible to motorists and an increasing number of motorists are also cyclists, which probably makes them more considerate of cyclists when driving”¹⁰. A research paper developed by the Toronto Coalition for Active Transportation / Clean Air Partnership in 2010 defines the two principal safety concerns for pedestrians and cyclists as concerns related to personal safety that could be jeopardized by crime as well as concerns which arise as a result of traffic safety, due to the fact that non-motorized and motorized modes typically share the same infrastructure¹¹. Research has found that in the United States, pedestrians and cyclists suffer 2-3 times more accidents than a car driver (per 100 million trips) (Pucher and Dijkstra, 2003)¹².

In another study completed by the Thunderhead Alliance, collision data was compared to the presence of bicycle and pedestrian fatalities and active transportation mode share. Results indicated a positive correlation between the levels of cycling and walking and increased safety of users. Cities with the highest raw numbers of walking and cycling also had the lowest per capita fatality rates for pedestrians and cyclists¹³. Substandard infrastructure can also enhance the safety concerns of pedestrians and cyclists. Inadequate hard infrastructure sidewalks and bicycle paths, dangerous intersections and crosswalks and poor lighting were found to be significant contributors to increased fatality and injury rates among pedestrians and cyclists¹⁴. Another study completed in 2001 note the following factors which tend to impact the safety of pedestrians¹⁵:

- Presence of a sidewalk;
- Lateral separation from motor vehicle traffic;
- Barriers and buffers between pedestrians and motor vehicle traffic;
- Motor vehicle volume and composition;
- Effects of motor vehicle traffic speed; and
- Driveway frequency and access volume.

Public opinion research indicates that with the development and / or enhancement of hard infrastructure, such as the implementation of separated bike lanes, bike boxes and cycle tracks, application of the complete street design principles and improved signage along designated cycle routes, many pedestrians and cyclists report that they feel safer and thus participate more frequently in active transportation activities. It is also important to complement the hard infrastructure with soft infrastructure such as education and awareness campaigns and pedestrian and cycling safety initiatives. Examples of these include:

¹⁰ Buehler, R. and Pucher, J. “Cycling to Work in 90 Large American Cities: New Evidence on the Role of Bike Paths and Lanes”. Springer Science+Business Media, LLC. (2011)

¹¹ Behan, K & Smith Lea, N. “Benchmarking Active Transportation in Canadian Cities”. Toronto Community Foundation. Clean Air Partnership (2010).

¹² Pucher, J. and Dijkstra, L. “Making Walking and Cycling Safer: Lessons from Europe”. *Transportation Quarterly* 54 (2000): 25-50.

¹³ Thunderhead Alliance. “Bicycling and Walking in the US; Benchmarking Report, 2007”. Prescott, AZ: Thunderhead Alliance. 2007.

¹⁴ Zeeger, C.V. “Designing for Pedestrians”. In the *Traffic Safety Toolbox: A primer of Traffic Safety*. Washington D.C.: Institute for Transportation Engineers. (1993)

¹⁵ Buehler, R. and Pucher, J. “Cycling to Work in 90 Large American Cities: New Evidence on the Role of Bike Paths and Lanes”. Springer Science+Business Media, LLC. (2011)

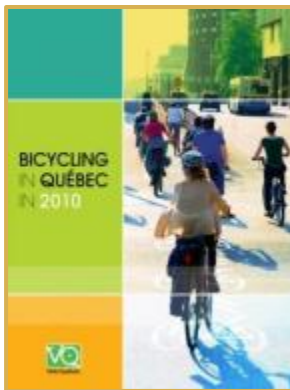
- Canby (2003) recommends the creation of a strong education and advocacy program. European cities have experienced widespread change in pedestrian and cyclist safety with the implementation of traffic safety education program for children at an early age continued through into their teens.
- Zuks (2002) notes that programming related to bicycle handling, road sense, route selection and road rules should be developed to enhance the user's perception of safety while increasing physical safety on and off the roadways.

2.5.2.2 Case Study: Province of Quebec, Canada

Evidence demonstrates that the implementation of improved and better designed hard and soft pedestrian and cycling infrastructure and programming in a community can result in a reduction in the number of collisions and injuries and thus an increase in overall safety. As documented in the TCAT/Clean Air Partnership Paper, research suggests that in the Province of Quebec between the years of 1987 and 2000 the total number of bicycles increased by a factor greater than 100%, with the number of regular cyclists increasing by 50%. At the same time, cycling fatalities fell by 42%, serious injuries fell by 56% and minor injuries fell by 38%¹⁶.

A 2010 study completed by Velo Quebec provides an “overall portrait of cycling in Quebec”. The report provides data on the safety of cyclists as well as the impact on the Quebec population with an increased investment in cycling programs and infrastructure¹⁷. Key findings regarding cycling safety from this report include:

- The number of cyclists who died due to an accident in Québec has remained stable for some years now. In 2005, there were 16 road fatalities; four years later, the toll was unchanged.
- From 2004 to 2009, the number of serious injuries fell by 40%, from 189 to 114. Cycling causes fewer injuries than most other physical activities.



Source: www.velo.qc.ca



Cycling Group Touring Quebec; Source:



Montreal, QC; Source: www.thirdwavecyclingblog.wordpress.com

¹⁶ Pucher, J. and Buehler, R. “Cycling Trends and Policies in Canadian Cities”. *Work Transport Policy and Practice*, 2005, volume 11, issue 1. (2005)

¹⁷ Velo Quebec. “Bicycling in Quebec in 2010”. www.velo.qc.ca. (2010).

Overall it can be concluded that based on significant research Canadian provinces that have invested in cycling have seen an increase in cyclist numbers and a decrease in cycling accident death rates. This has been the case in Quebec, a Province which has implemented a wide range of cycling programs and infrastructure including the mandatory use of lighting while riding a bike after dark¹⁸.

2.5.3 Transportation Benefits

2.5.3.1 Research & Emerging Trends

Walking and cycling are both popular recreational activities and a means of transportation that are efficient, affordable and accessible. These are the most energy efficient modes of transportation that do not directly generate pollution (with the exception of bicycle manufacturing). The transportation benefits of walking, cycling and other active transportation modes include reduced road congestion (i.e. move more people by AT along a road compared to moving the same number of people by car), reduced maintenance costs, less costly infrastructure, increased road safety and decreased user costs¹⁹. In general, cycling is nearly as fast as driving for trips of 7 kilometres or less in urban areas and walking is as fast as driving for trips of 500 metres or less²⁰. Studies estimate that the construction of sidewalks on all city streets could increase non-motorized travel 0.16 km and reduce automobile travel 1.84 vehicles-kilometres per capita²¹.

A 2012 report from the City of Toronto's Public Health Division concluded that the implementation of active transportation has very important transportation benefits. Some of the key findings include:

- Reduced traffic and road congestion;
- Reduced delays from collisions;
- Reduced unreliability of travel time;
- Reduced fuel and transport costs; and
- Improved residents' ability to access facilities and services.

Congestion costs in Ontario were estimated at \$6.4 billion annually and could grow by an additional \$7 billion annually by 2021 without increased investment in alternative modes of transportation²². Studies have shown that walking and cycling improvements may reduce personal expenditures on taxi costs and public transit fares²³. Reducing automobile ownership and usage may further contribute to lower parking costs and fewer parking spaces required at a place of employment. Some of the key findings to encourage active transportation include:

- Reduction in roadway costs (maintenance, safety and enhancement costs);
- Less damage to road surfaces; and
- Lower space requirement than motor vehicles.

¹⁸ Velo Quebec. "Bicycling in Quebec in 2010". www.velo.qc.ca. (2010).

¹⁹ Reynolds, M., Winters, M., Ries, F. & Gouge B. "Active Transportation in Urban Areas: Exploring Health Benefits and Risks". National Collaborating Centre for Environmental Health. June 2010.

²⁰ Toronto Public Health. Road to Health: Improving Walking and Cycling in Toronto. 2012

²¹ Litman, T. "Evaluating Non-Motorized Transportation Benefits and Costs". Victoria Transport Policy Institute. www.vtpi.org. 2005.

²² Transportation Demand Management Strategy, City of Ottawa - TravelWise (Transportation, Utilities and Public Works), April 2003

²³ Litman, T. "Evaluating Non-Motorized Transportation Benefits and Costs". Victoria Transport Policy Institute. www.vtpi.org. 2005.

Surveys indicate that 66% of Canadians would cycle more than they presently do. Seven in ten Canadians say they would cycle to work if there “were a dedicated lane which would take me to my workplace in less than 30 minutes at a comfortable pace”²⁴.

2.5.3.2 Case Study: Portland, Oregon, Davis, California & Boulder, Colorado

There is strong evidence that given complete networks of high-quality cycling routes, a significant number of people will cycle more often. With between 10% and 20% of trips by bicycle, Portland, Oregon, Davis, California and Boulder, Colorado have the highest levels of bicycle use and are recognized as leading bicycle friendly communities in North America. This high level of cycling is facilitated by connected and signed networks, which include separated and conventional bike lanes on almost all of their arterial or collector roads and extensive off-road commuter bicycle paths as well as bike boulevards on quieter residential streets. Residents can simply get on their bicycles with confidence knowing there will always be a safe route to their destination²⁵.



Portland's Bike Traffic is up 28% over last year
Source: www.bikeportland.org



College Campus Closed to Motor Vehicles in Davis, California
Source: www.metaefficient.com



Cycling Year Round in Boulder Colorado
Source: www.metaefficient.com

2.5.4 Environmental Benefits

2.5.4.1 Research & Emerging Trends

Active Transportation activities are energy-efficient, non-polluting modes of travel. Promoting the bike as a clean and efficient alternative to the personal automobile is a practical way for cities to reduce traffic congestion and smog²⁶. Short distance motor vehicle trips are the least fuel efficient and generate the most pollution per kilometre. These trips have the greatest potential of being replaced by walking or cycling trips and integrated walking-transit and cycling-transit trips. It is estimated that each 1% shift from automobile to non-motorized travel typically reduces fuel consumption 2-4%²⁷.

²⁴ Ontario Trails Strategy. Ministry of Health Promotion. 2005

²⁵ British Columbia Cycling Coalition. "Shifting to High Gear: Realizing the Benefits of Accelerated Investment in Cycling". Submission to the Finance and Government Services Committee. October 2007.

²⁶ Roney, Matthew J. Bicycles Pedaling Into the Spotlights. 2008. Earth Policy Institute

²⁷ Litman, T. "Evaluating Non-Motorized Transportation Benefits and Costs". Victoria Transport Policy Institute. www.vtpi.org. 2005.

Initiatives to promote and encourage active transportation are a viable option to reducing discretionary motor vehicle usage and promoting environmental benefits. Some of the key environmental benefits include²⁸:

- Resource conservation (less dependency on natural resources such as petroleum and coal);
- Pollution reduction such as noise, carbon monoxide and particulates; and
- Integration of compact mixed development due to reduced transport land requirements.

Active transportation activities may provide large energy savings as they replace motor vehicle short trips that have high emission rates per mile capita²⁹. Planning and constructing communities in a more sustainable way so as to be less vehicle dependant by providing infrastructure for alternative transportation modes, such as walking, cycling and public transit can reduce the amount of land required to construct new communities, thus creating more compact subdivisions that make more efficient use of available land. This will also mitigate the fact that motor vehicles, roads and parking facilities are major sources of water pollution and hydrologic disruptions due to such factors as road de-icing, air pollution settlement, roadside herbicides, road construction along shorelines and increased impervious surfaces.

2.5.5 Economic Benefits

2.5.5.1 Research & Emerging Trends

Active transportation reduces expenditures related to automobiles and in some cases can reduce the need for residents to own a vehicle, where savings can total hundreds or thousands of dollars annually per capita³⁰. Active transportation provides benefits to the local economy during both construction and operation. The construction of these active transportation facilities results in direct benefits such as jobs, including the supply and installation of materials. Following construction, benefits emerge in the form of expenditures by active transportation facility users.

Published by the Go for Green in March 2004 The Economic Benefits of Walking and Cycling, the economic benefits outlined include:

- Reduction in road construction, repair and maintenance costs;
- Reduction in costs due to air pollutants and greenhouse gas emissions;
- Reduction in health care costs due to increased physical activity and reduced; respiratory and cardiac disease;
- Reduction in fuel, repair and maintenance costs to users;
- Reduction of costs due to increased road safety;
- Reduction in external costs due to traffic congestion;
- Reduction in parking subsidies;
- Reduction of costs due to air pollution;
- Reduction of costs due to water pollution;
- The positive economic impact of bicycle tourism;

²⁸ Litman, T. "Evaluating Non-Motorized Transportation Benefits and Costs". Victoria Transport Policy Institute. www.vtpi.org. 2005.

²⁹ Litman, T. "Evaluating Non-Motorized Transportation Benefits and Costs". Victoria Transport Policy Institute. www.vtpi.org. 2005.

³⁰ Litman, T. "Evaluating Non-Motorized Transportation Benefits and Costs". Victoria Transport Policy Institute. www.vtpi.org. 2005.

- The positive economic impact of bicycle sales and manufacturing;
- Increased property values along greenways and trails; and
- Increased productivity and reduction of sick days and injuries in the workplace.

Non-automotive expenditures are estimated to have a regional impact of \$0.219 per dollar more than automobile expenditures³¹. In 2002, Canadian households spent an average of \$42 on bicycles, parts and accessories for a total of nearly \$500 million.

Studies estimate that over 40 years Portland Oregon's \$138 to 605 million bicycle facility investments will provide the following positive net economic benefits³²:

- Healthcare savings of \$388-594 million
- Fuel savings of \$143-218 million
- \$7-12 billion in longevity value

2.5.5.2 Case Study Examples



Cycling on the Sentier NB Trail
Source: www.tourismnewbrunswick.ca



Hiking on the Bruce Trail
Source: www.flickr.com (explorethebruce.com)



Cycling on the Waterfront Trail
Source: www.niagarabedandbreakfast.com

The following are a number of examples from trail investment projects found throughout Canada as well as the economic impacts / benefits which were realized from these initiatives.

- Based on a 2002 Waterfront Trail User Survey most trail users spend between \$3 and \$12 per trip with visitors / vacationers spending more than those individuals who live near the trail. Typically long distance users spent on average \$244 annually along the trail while short distance users spent on average \$182 annually³³;
- Trails in New Brunswick employ around 1500 people for an average of six months per year;
- 70% of Bruce Trail users cite the trail as the main reason for visiting the area, and they spend an average of about \$20.00 per user per visit within a 10 km corridor on either side of the trail;

³¹ The Business Case for Active Transportation, Better Environmentally Sound Transportation - BEST, Go for Green, March 2004

³² Litman, T. "Evaluating Non-Motorized Transportation Benefits and Costs". Victoria Transport Policy Institute. www.vtpi.org. 2005.

³³ Waterfront Regeneration Trust. "Lake Ontario Waterfront Trail: 2002 Waterfront Trail User Survey". www.waterfronttrail.org/html/surveyhighlights.htm. Retrieved July 26, 2012

- An Economic Benefit Data Study completed for the Explore Maine by Bike Trail System found that in 1999, direct spending in Maine by over 2 million bicycle tourists came to a total of \$36.3 million. In addition, approximately 2,100 people participated in guided bike tours which generated just under \$1 million³⁴;
- Annual expenditures linked to La Route Verte rose to \$95.4 million in 2000, representing 2,000 jobs and \$15.1 million and \$11.9 million for the governments of Quebec and Canada, respectively; and
- In 2002, Quebec hosted 190,000 bicycle tourists who spent an average of \$112 per day and an average of 6.5 nights compared to \$105 per day and an average of 1-2 nights spent by other tourists.

2.5.6 Tourism Benefits

2.5.6.1 Research & Emerging Trends

It has been shown that there is a growing demand for cycling and eco-tourism throughout Southern Ontario and North America. Studies indicate that economic benefits of tourism related to active transportation infrastructure will continue to grow³⁵. The demand stems from an increasing desire to explore new areas through an active mode of transportation and experience one's natural surroundings.

The largest beneficiaries of cycling and eco-tourism are eating/drinking establishments, retail and lodging services. The following are examples of significant benefits tourism has upon a City, Town, County or Region's economy³⁶:

- The Riverwalk in San Antonio, Texas contributes \$1.5 billion to the local economy;
- In 2002, Quebec hosted 190 000 bicycle tourists, of whom which spent a daily average of \$112, as compared to other tourists who spent \$52 daily;
- In 2000, annual expenditures associated with La Route Verte rose to \$95.4 million, equating to 2000 jobs and \$15.1 million and \$11.9 million for the governments of Quebec and Canada; and
- The bicycle retail and tourism industry in Ontario is worth at least \$150 million annually.

Though tourism benefits from AT and Trail facilities prove to provide an injection into the local economy there are also a wide range of social, environmental and health benefits associated with AT and trail tourism. As people become increasingly more aware of the benefits to trail use and pedestrian and cycling activities there tends to be a continuous increase in the number of cycling tourists who will provide further benefits to their communities and the communities to which they visit. In a study completed by Ryerson University these benefits are documented for potential implementation in Southern Ontario's Greenbelt Region³⁷. Findings from a number of recent studies such as a 2009 study completed for the "Bike Train" by a Cycle Tourism based organization called Transportation Options³⁸ indicate an increase in business and employment opportunities and health and environmental benefits associated with cycle tourism. Key highlights include:

³⁴ Wilbur Smith Associated & Buxton Communications Bicycle Federation of America. "Bicycle Tourism in Maine: Economic Impacts and Marketing". Maine Department of Transportation. April 2001.

³⁵ The Business Case for Active Transportation, Better Environmentally Sound Transportation - BEST, Go for Green, March 2004

³⁶ The Business Case for Active Transportation, Better Environmentally Sound Transportation - BEST, Go for Green, March 2004

³⁷ Gal, D., Kamal, M., Lopez Silveira, M.A., Naccarato, G., Scott, S., and Dodds, R. "The Demand for Cycle Tourism in Ontario's Greenbelt Region". Ryerson University, Toronto, ON Canada. Ted Rogers School of Hospitality and Tourism Management. December 2010.

³⁸ Lafontaine, J. "2009 Bike Train Final Report". Transportation Options. 2009.

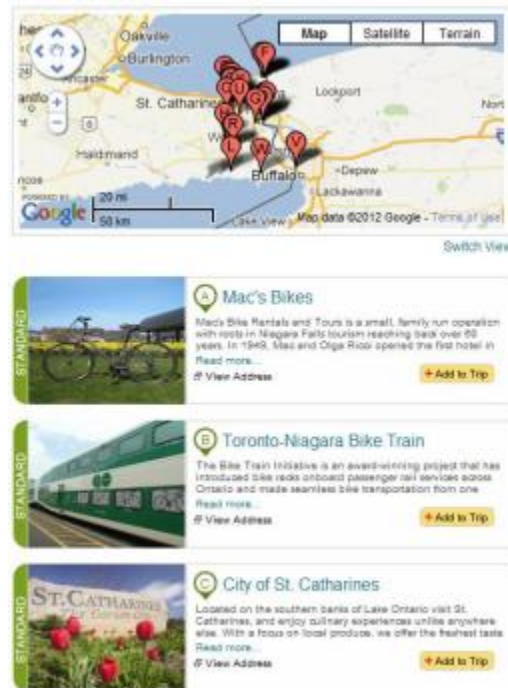
- “As the demand for cycle tourism increases, cyclists’ spending on food, drinks, entertainment and other expenses related to the sport will also increase at travel destinations.”³⁹
- “There are many employment opportunities with the growth of cycle tourism. The Bicycle Trade Association of Canada (BTAC) suggests that an annual requirement between 50 and 100 new mechanics in the GTA, and as many as 1000 in other major cities in Canada, will be demanded as cycling continues to gain popularity.”⁴⁰
- “Cycle tourism has become an increasingly important component within rural sustainable development projects between of its contribution to eliminating greenhouse gas emissions. Cycle tourism plays a part in eliminating the use of motorized travel (i.e. for sightseeing purposes).”⁴¹

Similarly, Transportation Options also developed and initiated the “Welcome Cyclists” program in 2009. The Welcome Cyclists Network is a program certifying and promoting bicycle friendly businesses and cycle tourism in a growing number of regions across Ontario. The Network is open to accommodations, food services, attractions, cycling related businesses and organizations interested in cycle tourism. The Welcome Cyclists Network is launched in each region with an informative workshop, after which local businesses may register on-line, at no charge, to participate and ultimately reach the growing number of cycle tourists in Ontario⁴². The cycle tourism and economic benefits realized by this program have grown as the program is implemented in new communities. A linked system / database of cycle touring supporters as well as local businesses helps to boost the local economy with cycle tourism dollars while increasing local awareness about safe practices of cycle touring.

2.5.6.2 Case Study: Victoria Transport Policy & Region of Niagara

A study done by the Victoria Transport Policy Institute shows that walking and cycling facility improvements and promotion programs have a direct impact on economic development by increasing shopping opportunities and tourism activities. More specifically, “one study estimates that rail trails in Australia provide an average of \$51 to the regional economy per cycle tourist per day”⁴³. A number of studies show a direct correlation between the implementation of well-planned, non-motorized transportation improvements and an increase in local tourism economies⁴⁴.

Within Southern Ontario, the Region of Niagara has recently invested in cycle tourism by highlighting and linking their numerous wineries, historical and cultural destinations and network of well-developed cycling



³⁹ BTAC – Bicycle Trade Associated of Canada. “2009 Data Capture”. Retrieved September 2010 from http://www.btac.org/files/BTAC-2009_Data_Capture-Media.pdf. (2009)

⁴⁰ BTAC – Bicycle Trade Associated of Canada. “2009 Data Capture”. Retrieved September 2010 from http://www.btac.org/files/BTAC-2009_Data_Capture-Media.pdf. (2009)

⁴¹ BTAC – Bicycle Trade Associated of Canada. “2009 Data Capture”. Retrieved September 2010 from http://www.btac.org/files/BTAC-2009_Data_Capture-Media.pdf. (2009)

⁴² Welcome Cyclists. Retrieved from: www.welcomecyclists.ca/network. July 26, 2012.

⁴³ Beeton, S. “An Economic Analysis of Rail Trails in Victoria, Australia”. La Trobe University. 2003.

⁴⁴ Litman, T. “Evaluating Non-Motorized Transportation Benefits and Costs”. Victoria Transport Policy Institute. www.vtpi.org. 2005.

facilities including 200 scenic routes. More recently, they have engaged with Bicycle Touring Clubs, the “Bike Train”, “Welcome Cyclists” and other bike retailers and local businesses to increase the number of cycle tourists within the Region. By creating a useable tool (www.tourismniagara.com) cycle tourists are now able to plan their trips and feel comfortable that they are able to bring, store and use their bicycles. The website also provides links to regional and local trails, as well as restaurants, shops and accommodations enhancing the potential tourism opportunities and benefits available to the Region and its local municipalities.



LAKE HURON

NORTH CHANNEL CYCLING ROUTE STUDY

3.0 GATHERING INPUT AND ENGAGING THE PUBLIC

Throughout the study process the study team undertook a number of consultation methods to engage and gather input from local stakeholders and interest groups, members of the public as well as representatives from the surrounding First Nations communities. The methods as well as the input received have been summarized below.

3.1 Engaging the Public through Online Tools (Online Questionnaire)

As part of the study to develop the Lake Huron North Channel Cycling Route, a web-based questionnaire was developed and hosted using the online service SurveyMonkey (www.surveymonkey.com). The questionnaire was posted in May 2012 and concluded July 2012. The questionnaire, although not statistically valid, provided the study team with useful public and stakeholder input regarding routing and facility type alternatives. Some of the questions posed as part of the questionnaire included but were not limited to:

- Frequency of participation in recreational activities;
- The season and frequency throughout the year that the respondent cycles;
- The percentage of time spent cycling along trails within the Lake Huron North Channel Route versus the time spent cycling outside of the area;
- Time spent on average cycling during a typical cycling trip;

- Level of comfort using specific cycling facility types;
- Motivators for cycling within the Region;
- Level of importance gauged for driving factors behind the development of the route;
- The type of information / features which should be considered for inclusion along the route; and
- Key Destination points along the proposed route.

The final survey results are based on the 155 respondents. The following is a summary of the key findings from the questionnaire. The responses have been organized based on themes. The first theme groups questions which provided information on respondents' socio-demographic characteristics, the second theme outlines the respondents' cycling characteristics and the last outlines respondents' preferences for the development and design of the cycling route.

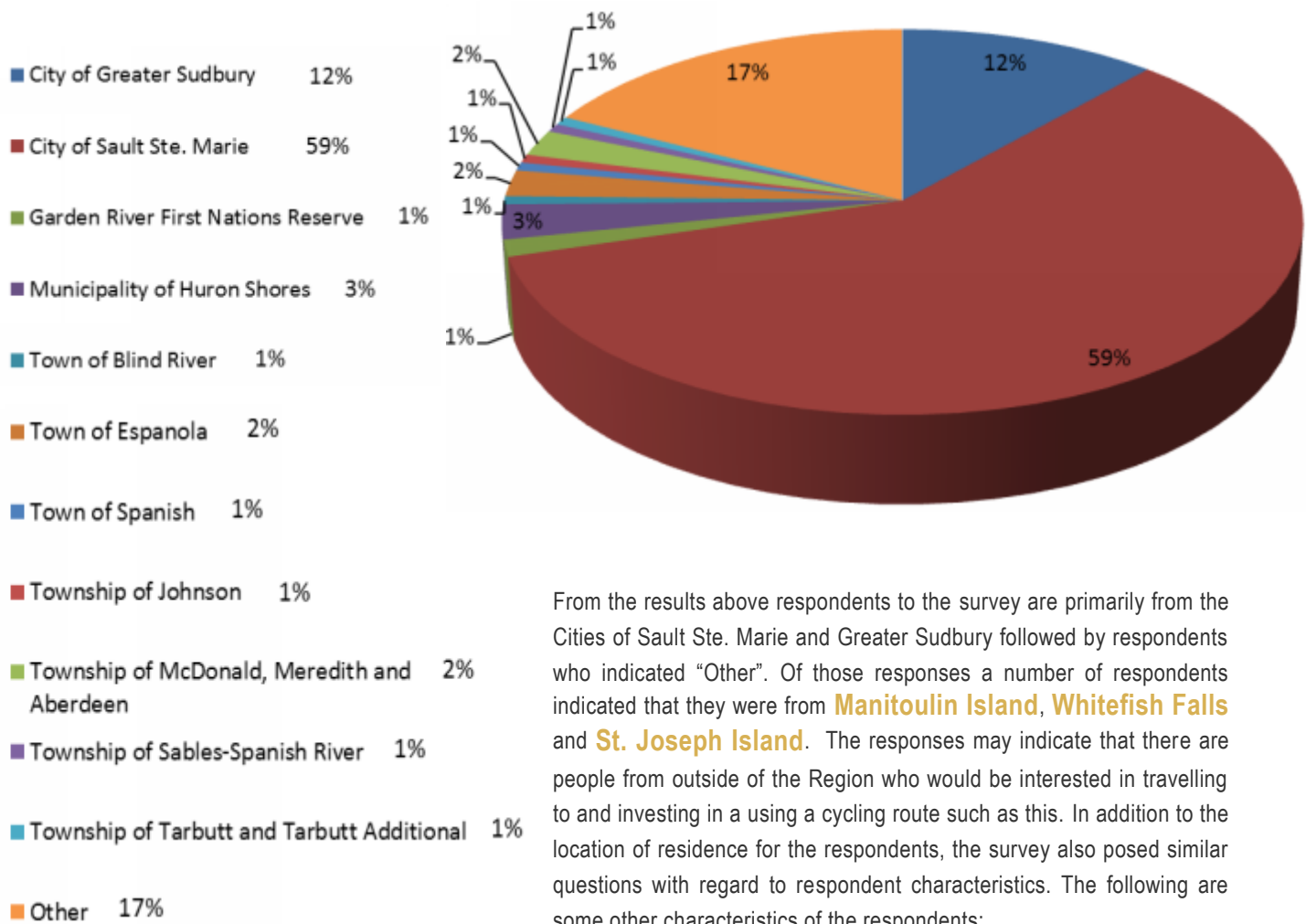
Respondents' Socio-Demographic Characteristics

The first question posed to respondents was “Which part of the Lake Huron North Channel Region do you live?”.

Respondents were provided with a total of 18 alternatives including the option of “Other” to indicate those respondents who do not reside within the Region. The following figure, **Figure 3.1**, illustrates the percentage of respondents who are from the different Regions within the study area.

*Please note that for those municipalities where there was a response percentage of 0, they were not included. These municipalities included:

- Serpent River First Nation Reserve;
- Town of Baldwin;
- Township of Laird;
- Township of Nairn and Hyman;
- Township of North-Shore; and
- Township of Plummer Additional.



From the results above respondents to the survey are primarily from the Cities of Sault Ste. Marie and Greater Sudbury followed by respondents who indicated “Other”. Of those responses a number of respondents indicated that they were from **Manitoulin Island, Whitefish Falls and St. Joseph Island**. The responses may indicate that there are people from outside of the Region who would be interested in travelling to and investing in a using a cycling route such as this. In addition to the location of residence for the respondents, the survey also posed similar questions with regard to respondent characteristics. The following are some other characteristics of the respondents:

- Respondents are most typically within the age ranges of 41 to 69; and
- More respondents were males (59.2%) than females (40.8%).

Respondents' Cycling Characteristics

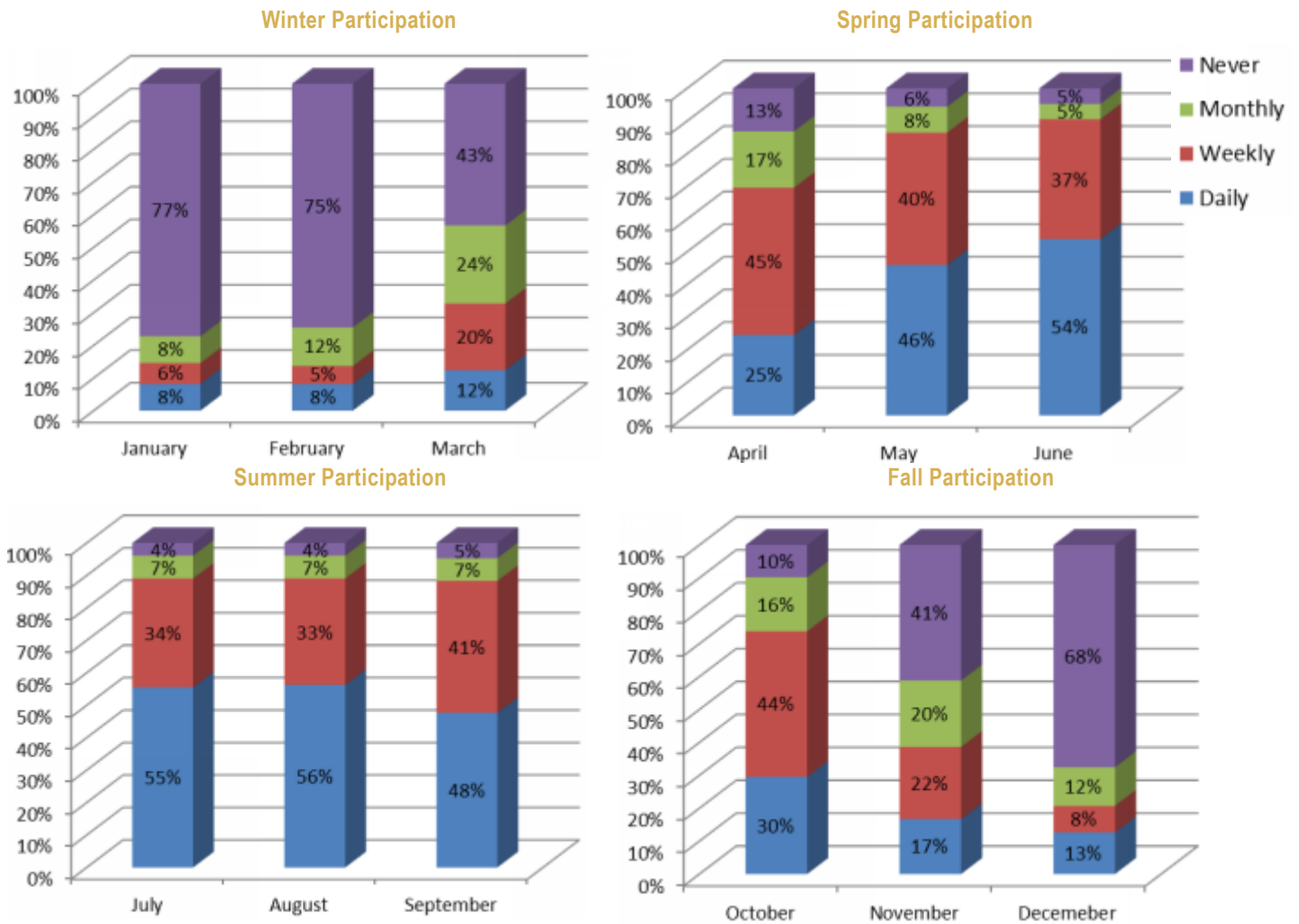
Following the questions posed with regard to the socio-economic characteristics of the respondents, a set of questions pertaining to their cycling characteristics were posed. Relevant responses were gathered and have been summarized below.

What activities and how often are respondents participating in cycling activities?

- Respondents typically “Cycle on Roads and Street in or Near my Neighbourhood or Community” daily or weekly 89%, “Cycle on Off-road Trails in or Near my own Neighbourhood or Community” daily or weekly 56% and “Participate in Other Outdoor Recreational Activities such as Walking and Hiking on Off-road Trails” daily or weekly 53%.

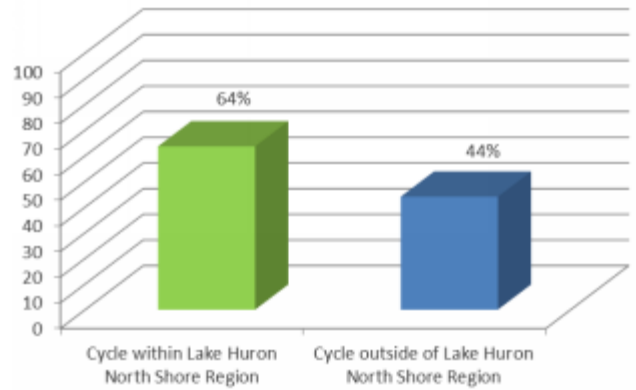
When are they participating in these activities?

- With regard to the time throughout the year that respondents participate in cycling activities, the following charts have been organized based on the seasons to better understand the trend in results. Based on the responses gathered it is clear that participation in cycling activities during the **spring** and **summer months** is more frequently occurring than those activities in the winter months.



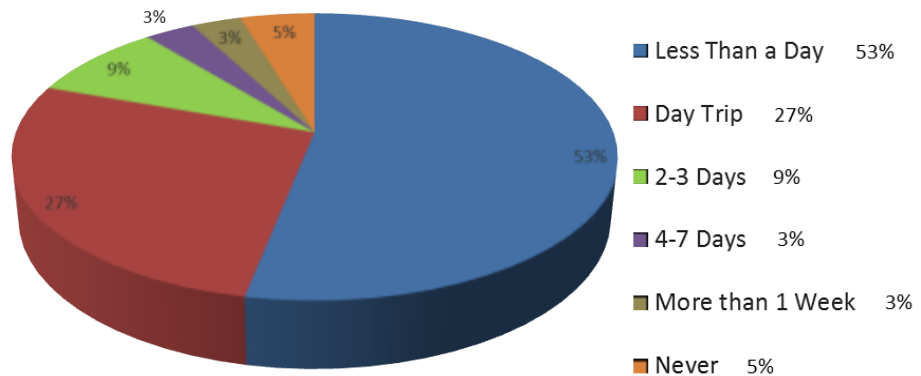
Where are they participating in these activities?

- Responses indicate that **64%** of respondents currently **cycle within the Lake Huron North Channel Region** and that **44%** **cycle outside** indicating the potential for additional cyclists to explore the route when developed for tourism purposes.



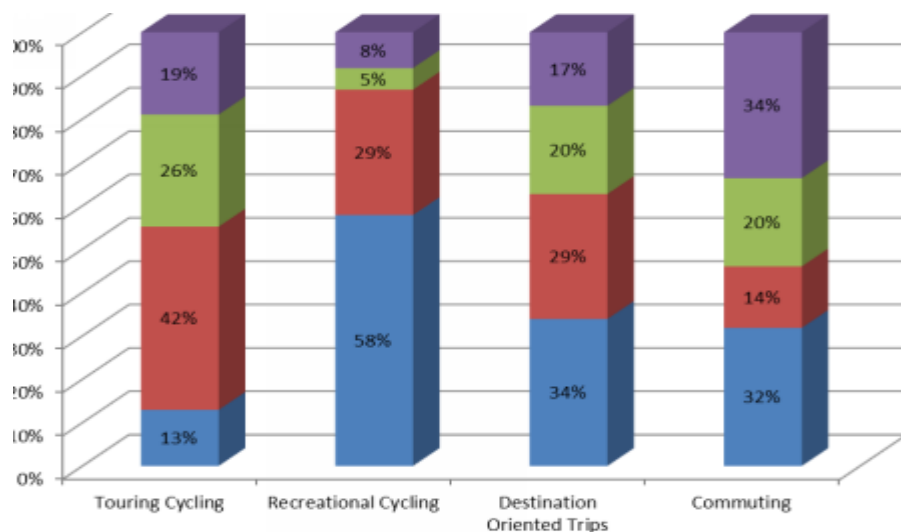
How long are they spending on these trips?

- More than half of the respondents are typically spending less than a day on a cycling trip with almost a third of respondents participating in cycling day trips. There are fewer people involved in trips which last for more than 1 day, however, there may be a potential for an increase in this number as the route is developed.



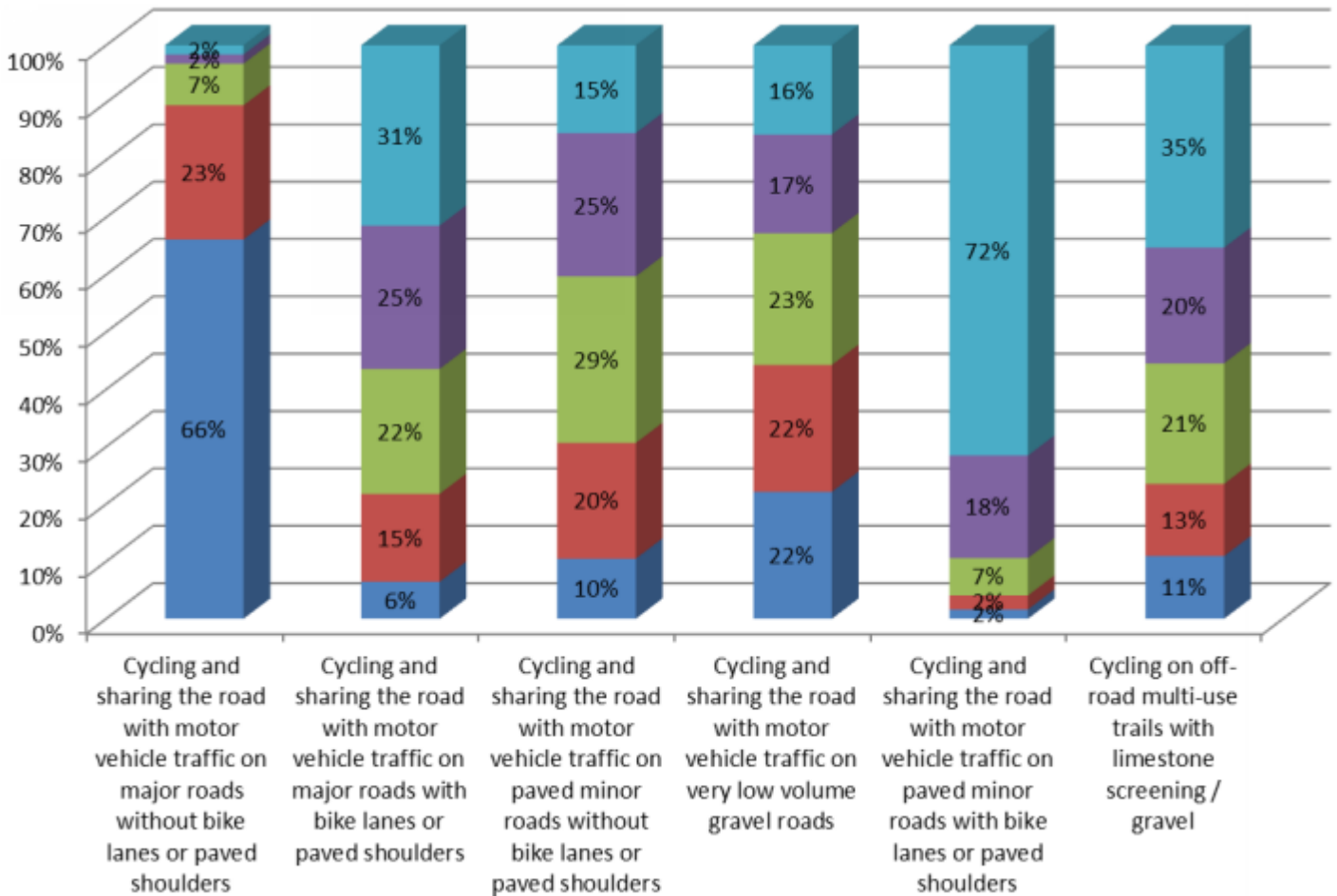
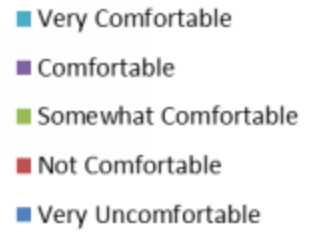
What motivates them to cycle?

- Respondents are most frequently motivated to cycle due to recreational purposes such as fitness or other leisure pursuits. Responses also included the option to indicate “other” motivators. Some respondents noted that they participate in long distance cycling tours e.g. across Canada or to the United States.



Preferences for the Development of the Proposed Cycling Route

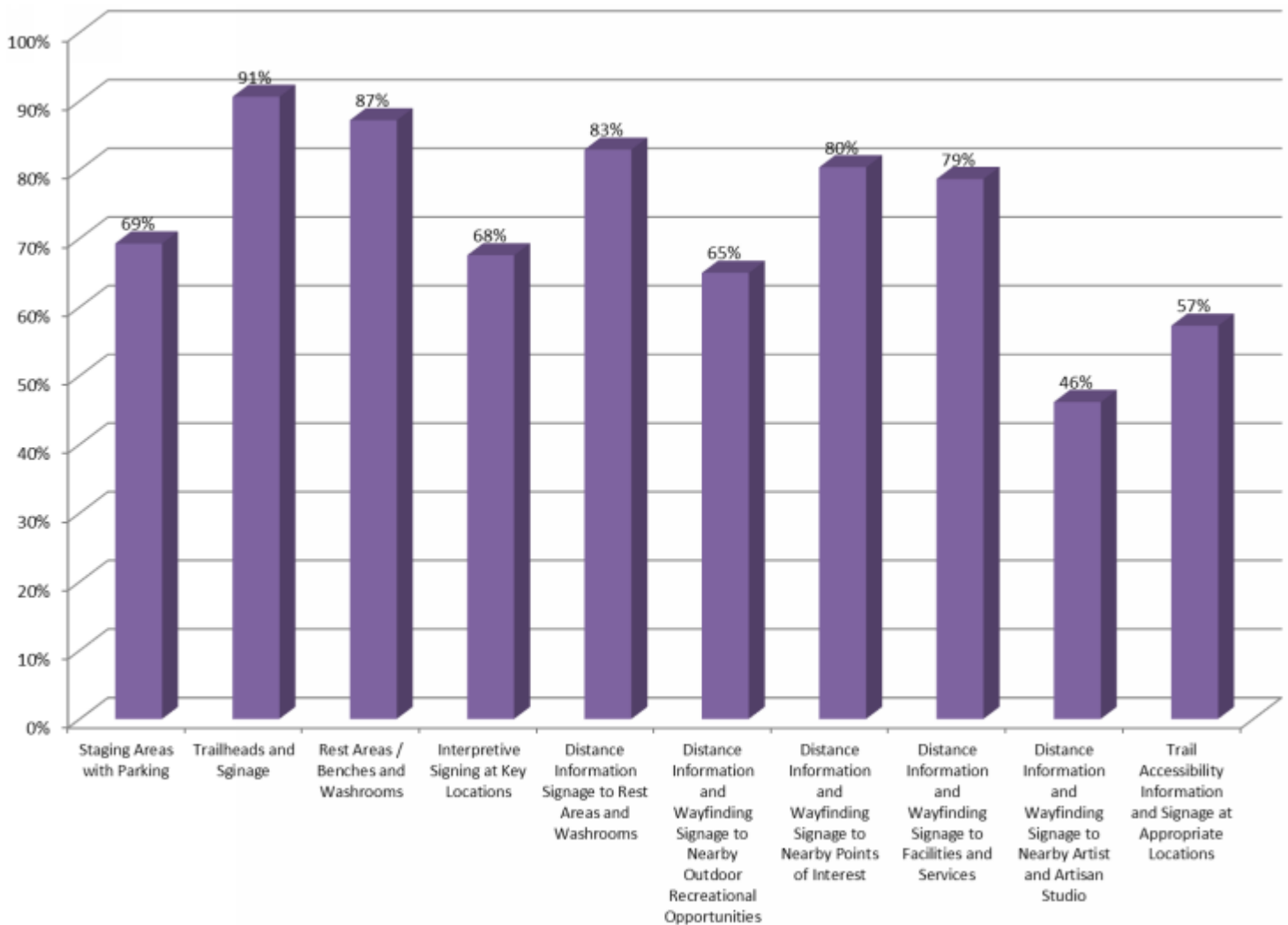
The last grouping of questions include those which provided the study team with some direction and input on how the Cycling Route could be designed or developed. Responses included recommendations on potential facility types, reasons for improvement and potential information / features to be implemented along the route. Results include:



- As illustrated above, the majority of respondents are **most comfortable** with “Cycling and sharing the road with motor vehicle traffic on paved minor roads with bike lanes or paved shoulders” with the majority of respondents **very uncomfortable** with “Cycling and sharing the road with motor vehicle traffic on major roads without bike lanes or paved shoulder”. Respondents have made it clear that the preference is to either be physically separated from motor vehicle traffic (“Cycling on off-road multi-use trails with limestone screening / gravel 35% very comfortable) or with a facility that provides them with a designated space to cycle within the road right of way.

- Different potential driving factors behind the development of a cycling route between the Cities of Sault Ste. Marie and the Greater Sudbury were identified for respondents to consider. Based on these responses it is clear that **providing cycling facilities to connect destinations within communities (79%)**, **improve quality of life and health for residents (73%)** and **provide cyclists with connections between communities (69%)**

An important component of the marketing and promotion strategy is the signage which could be assigned along the proposed route. Respondents were asked to provide their input on the types of information and features which they would like to have considered for implementation. The following figure illustrates their responses.



Respondents were also asked to provide their input through a number of open ended questions where they were asked to give recommendations on key destinations. Some of the potential destinations that were recommended include but are not limited to:

- Manitoulin Island;
- Highway 638;
- Espanola;
- Smaller communities and Towns;
- St. Joseph Island Loop;
- Sault Ste. Marie;
- Sudbury;
- Blind River

3.2 Public & Stakeholder Consultation & Input

3.2.1 Stakeholder Consultation and Input

The consultants facilitated a series of three workshops with invited tourism operators, municipal representatives and others thought to be interested in the Lake Huron North Channel Cycling Route. The workshops occurred as follows:

- Blind River Marina meeting room, Wednesday, June 20, 2012 from 1:30pm to 3:30pm;
- Sault Ste. Marie Water Tower Inn Library meeting room, Wednesday, June 20, 2012 from 7:00pm to 9:00pm;
and
- Sudbury School of Architecture classroom, June 21, 2012 from 7:00pm to 9:00pm.

The Study Steering Committee compiled a list of stakeholders to be invited to each workshop (See Invitee Lists in **Appendix A**). Invitations were distributed by email. The purpose of the workshops was to introduce the Lake Huron North Channel Cycling Route concept and begin discussions with community stakeholders regarding development of the route and implementation of the concept. Four items comprised the workshop agenda:

- Introductions of facilitator and attendees;
- Information about the Concept and the Proposed Route;
- Discussion about the Concept and the Proposed Route including:
 - Comments/thoughts on the concept
 - Comments/thoughts on proposed routing
 - Comments/thoughts on marketing and management
- Next Steps (in the study).

A PowerPoint presentation was used to deliver the information about the concept and show the proposed routing (See **Appendix A**). Attendees were provided with a series of 5, 11"x17" maps showing the proposed route – one map provided

an overview of the entire route, while each of the other four provided greater detail on approximately a quarter of the overall route.

3.2.1.1 *Blind River Workshop*

List of Attendees:

- Jane Armstrong, Municipality of Huron Shores
- Beverly Eagleson, Municipality of Huron Shores
- Diane Lanigan, East Algoma CFDC
- Michael Muscat, Tarbutt Township
- Kelli Nansson, Township of Sables-Spanish Rivers
- Brent Rankin, Thessalon
- Dale Wedgewood, Municipality of Huron Shores

Attendee Comments:

The respondents noted that they liked the following things about the proposed route:

- The route is a tourism attractor;
- “Brings people to our area”;
- “Relatively ‘green’ initiative which requires little infrastructure beyond trail”;
- “Great idea”;
- “Strongly believe in this concept – need government funding to help in improving route”;
- “Our alternate routes (through Huron Shores) are being utilized”;
- “Includes the communities”;
- “provision of a safer route [than Highway 17] for cyclists”;
- “boon to local businesses”; and
- “gives potential new residents a glimpse into community life”.

The respondents noted the following concerns:

- “Safety – not only for cyclists but motorists as well”;
- need signs to let people know about the route; and
- “uncertainty of safety of entire route [as parts of Highway 17 are part of the route].

Other Comments / Questions about the Concept:

- “Who will pay for infrastructure costs – will funding delay implementation?”
- “What kind of commitment do you need from the Municipalities”

Comments / Suggestions About the Proposed Route:

- On map, add link/connection to St. Joseph Island;
- On map, add locations where there is public internet access – Bruce Mines, Thessalon, Municipal office in Tarbutt Township;
- On map, add location of Trading Post at intersection of Highway 17 and McKnight Road; Bison Farm near bridge to St. Joseph Island; hospital in Thessalon; hospital on St. Joseph Island;
- McKnight Road is better link from Government Road to Highway 548 en route to St. Joseph Island;
- On map, add Boom Camp Scenic trails near Blind River; hospital in Blind River;
- On map, add Massey Area Museum; Heritage Park Rest Area in Massey;
- On map, show link from Lee Valley Road to Webbwood (community on Highway 17);
- On map, show Deer Trail and Highway 6 link to Manitoulin Island;
- Possible staging area in Little Rapid at Ball Park; Museum and General Store are attractions in Little Rapid;
- Municipality of Huron Shores has plan to surface treat (pave) Ingram Road;
- On map, show location of Windmill Campground and Brownlee Camp on Brownlee Lake;
- Use Dayton Road rather than Pioneer Road and Horan Road, as all of Dayton Road will soon be surface treated (paved); and
- Potential staging areas in Iron Bridge include Arena, Tally Ho & Centennial Park.

3.2.1.2 Sault Ste. Marie Workshop

List of Attendees:

- Lindsay Errington, Tourism Sault Ste. Marie
- Gloria Fischer, Village of Hilton Beach/St. Joseph Island Economic Development Committee
- John Foster, LaCloche Manitoulin Business Assistance Corporation (LAMBAC)
- Donna Hilsinger, Water Tower Inn, Sault Ste. Marie
- JJ Hilsinger, Water Tower Inn and Suites, Sault Ste. Marie
- Ian McMillan, Tourism Sault Ste. Marie
- Sunny Naqvi, Comfort Suites, Sault Ste. Marie
- Mary Needler, LaCloche Manitoulin Business Assistance Corporation (LAMBAC)

Attendee Comments:

Like About the Concept:

- “Route connects 2 major northern Ontario cities not using vehicles”;
- “can be uses as a start for connecting all of northern Ontario (all of RTO13)”;

- “Great for developing tourism (bicycle tourism) for Sault Ste. Marie and promoting the beauty of Northern Ontario”;
- “Great concept to link SSM [Sault Ste. Marie] and Sudbury”;
- “Scenic, beautiful”;
- “history/cultural area, highlight the tourism opportunities along the way – museums etc.”;
- “Opens the door for product development opportunities with private sector (day trip packages on loops”;
- “Beneficial to very small towns along the route”; and
- “Inclusion of attractions in small communities”.

Concerns About the Concept:

- “proper signage [lacking, required]”;
- “Too much riding on Highway 17”;
- “Need to add Manitoulin to the main route”;
- “Dangerous on Highway 17 – could lead to more accidents”; and
- “Safety aspects of some route segments (municipality liability)”.

Other Comments/Questions:

About the Concept:

- “Is this the start of Northern Route from North Bay to Manitoba/Ontario border?”;
- “How to get businesses involved”;
- “Time frame?”;
- “Can you create a route map that highlights level of difficulty so that riders are not surprised (like downhill skiing)?”;
- “Is it possible to code sections as John said [see above] like ski runs?”;
- “Elliot Lake has a good trail organization for multi-use – good loop”; and
- Working through Federation of Northern Ontario Municipalities (FONOM) may be efficient way to gain formal support from municipalities along the route; other municipal organizations include LaCloche Manitoulin Association and Algoma District Municipal Association.

Comments/Suggestions About the Proposed Route:

- On map, show connection to St. Joseph Island and St. Joseph Island Loop;
- On map, show Deer Trail Loop and connection to it;
- On map, show connection to Manitoulin Island, trails/routes on the Island, First Nations’ tourism product and ferry connection to southern Ontario;
- Agree with Science North/Ramsey Lake as route terminus in Sudbury;

- “[need] proper signage to promote towns and products along the way”;
- St. Joseph Island is an important historic area;
- Important views of Lake Huron between Blind River and Spanish;
- “Link to more provincial and national parks! Important to include ... even as a tourism product”;
- (2) On map Include Highway 6 from Espanola to South Baymouth as main route – important for riders travelling from/to southern Ontario; and
- (3) On map, show connection to Fort LaCloche as an attraction.

3.2.1.3 Sudbury Workshop

List of Attendees:

- Murray Baker, Walden SnoRunners
- Richard Bleskie, Sudbury Trail Plan
- Kevin Chisholm, Rainbow Routes Association
- Carol Craig, Sudbury & District Health Unit, Rainbow Routes Association
- Deb McIntosh, Rainbow Routes Association
- Maja Mielonen, Manitoulin Island Cycling Associates
- Lloyd Myllynen, Broder-Dill Snowmobile Association
- Rachelle Niemela, Sudbury Cyclists Union
- Guy Robinson, Rainbow Routes Association
- Kim Roy, Sudbury Cyclists Union
- Peter Seto, Sudbury Cyclists Union
- Simon Strasser, Science North
- Arik Theijsmeijer, FedNor
- Jason Thibeault, Sudbury Cyclists Union
- Emily Trottier, City of Greater Sudbury

Attendee Comments:

Comments / Suggestions about the proposed route:

- (3) On map, show link from primary route to St. Joseph Island;
- (2) New “flyover” is planned by MTO for Southview Drive crossing of Highway 17;
- Preferred terminus in Sudbury is Science North/Bell Park;
- Summer of 2012, Junction Creek Waterway Park to be expanded southwest from Martindale Road to Kelly Lake Road – would provide preferred route to Southview Drive if terminus is downtown Sudbury;
- (2) On map (Sudbury), show cycle path from Ramsey Lake Road (Science North), north to Bell Park and across pedestrian bridge to Elgin Street as preferred route to downtown Sudbury;

- On map (Sudbury), show link from Ramsey Lake Road & Paris Street, east to Moonlight Beach and continuing east toward North Bay;
- On map, show eastern and western Deer Trail Touring Route connections to primary route;
- On map (Sudbury), show connection to Ottawa;
- (4) On map, show connection south from Espanola to Manitoulin island;
- (2) On map, identify Recreation Centre as a point of interest in Espanola;
- (3) There may be a snowmobile route from Espanola east and north connecting to Old Nairn Road which could be used as cycle route to eliminate travel on Highway 17 between Jacklin Road and Old Nairn Road;
- High volume of automobile and truck traffic using Spanish River bridge on Highway 17;
- On map, show Highway 638 from Echo Bay to Bruce Mines, and Highway 638 from Echo Bay to Gordon Lake Road to Government Road as alternative routes;
- Highway 17B is critical segment of route as there is no viable alternative through this area – will be a problem if Garden River First Nation do not support the Route;
- (2) Once upgrading of Fairbank Lake Road is complete, there is likely to be a high volume of heavy trucks using the road to service nearby mine;
- (2) On map (Sudbury), show connections east from terminus in Sudbury toward North Bay;
- On map (Sudbury), show location of Anderson Farm Museum near Patricia Street section of route;
- “While waiting for Highway 17 widening, riding shoulders of Highway 17 between Southview Drive and Kanatola Road is not bad (no gravel!)”; “shoulders [on Highway 17] here [between Southview Drive and Kanatola Road] already very wide and smooth”;
- “Connecting Sudbury tourist attractions would be great – Science North, Dynamic Earth, museums/galleries”;
- “It would be great to have campsites along the North Channel if possible”;
- “Get shops along the way to put up bike racks”;
- “think carefully about what people want at start and end (i.e. Long-term parking or transit?)”;
- “mobile/GPS friendly route info”;
- “as part of marketing, talk about connections beyond the route (e.g. To U.S., across Canada)”;
- “locals know – engage communities to provide attractions/shopping/heritage/food/ accommodation info along the route”;
- On map, show “Mouth of Spanish Park” at Massey;
- If possible, find an alternate route to going through Nairn Centre;
- “Talk to Downtown re: Downtown Master Plan”;
- On map (Sudbury), show Elgin Street Greenway, Farmers’ Market, School of Architecture, Tourism Office;
- Improvement of shoulders on Municipal Road 55 east of Vermilion River as alternative to use of ATV/snowmobile Trails;
- Kelly Lake Road to Copper Street to Martindale Road to Ontario Street is shorter, and lower traffic volume alternative route to downtown Sudbury;

- Shoulders of Highway 17 between Jacklin Road and Old Nairn Centre Road need improvement if this is part of route;
- Pavement on Spanish River Road to Fairbank Lake Road is very rough;
- “Sudbury to North Bay conceptual plan developed for Trans Canada Trail 2012 – you need to look at that for ideas”;
- “Cancer Prevention and Screening Network mandate includes increasing physical activity [of general public] to decrease cancer rates”;
- “Northern Physical Activity Network (NPAN via PARC ophea) – physical activity people from Public Health interested in this topic [Sault to Sudbury bicycle route]”;
- “for commuting to and from work, include shortest possible connection”;
- “Bill 100 paved shoulders”;
- On map (Sudbury), show mountain biking options; and
- “end route in downtown Sudbury”.

3.2.1.4 First Nations Community Consultation

Consultations with eight (8) First Nation stakeholders in the Lake Huron North Channel Cycling Route corridor, including Chiefs of seven (7) First Nation communities and the CEO of the North Shore Tribal Council (See contact list in **Appendix A**) were sought out, but formal consultations have not yet occurred.

On May 29 Tourism Sault Ste. Marie sent an email to each of the eight (8) First Nation contacts announcing the commencement of the Lake Huron North Channel Cycling Route Study. On May 30 Tourism Sault Ste. Marie sent a second email to the First Nations contacts introducing the study consultants and advising that the consultants would be following-up to schedule face-to-face or telephone consultations.

On May 30 the consultants undertook telephone calls to the First Nation contacts, yielding only a brief conversation with Chief Lyle Sayers of Garden River First Nation during which the Chief expressed concern with potential legal liability for Garden River First Nation if Highway 17B were included as part of the Cycle Route. The consultants sent a follow-up email to Chief Sayers confirming the content of the telephone discussion, and requesting an opportunity to attend an upcoming meeting (week of June 4) of the North Shore Tribal Council and its member First Nations. No response to the request was received.

An email from the consultants was sent on June 13, 2012 to each of the eight (8) representatives identifying four (4) options for consultation and requesting that each representative select the most convenient option. The options included:

- Attending one or more of the three (3) Stakeholder Consultation Meetings scheduled for June 20 in Blind River and Sault Ste. Marie; and June 21 in Sudbury. Meeting invitation and agendas attached were provided.
- Participating in a Webinar with the consultants, to be scheduled before the end of June, 2012.
- Reviewing the preliminary proposed route (weblink to route map provided) and participating in a telephone call with the consultants, to be scheduled before the end of June, 2012.

- Reviewing the preliminary proposed route (weblink to route map provided) and providing written response to the consultants (email address: darcy@tourismco.com) before the end of June, 2012.
- Completing an online survey (weblink provided).

To date there has been no response to the June 13 email, nor did any of the First Nation representatives attend any of the Stakeholder Consultation Meetings. It is recommended that another attempt be made by Tourism Sault Ste. Marie in the next phase and that this study report serve as the basis for these consultations.

3.2.2 Summary of What We Heard

Without exception, workshop attendees were fully supportive of the Lake Huron North Channel Bicycle Route concept. Many believe it will provide economic benefits to communities and businesses along the route through the encouragement and support of cycle tourism. Some visionaries see the route as the first step in a bicycle route spanning Northern Ontario from Quebec to Manitoba.

Most of the comments received related to the proposed routing and/or identification of links and points of interest along the route. Comments heard most often included:

- Important that mapping for the route show/promote links from the primary route to adjacent riding opportunities, primarily St. Joseph Island, Deer Trail and Manitoulin Island;
- Important that mapping for the route show as many points of interest and services as possible, including communities, built attractions, Provincial Parks, municipal parks, accommodation (roofed and camping) options, restaurants, etc.
- There are a number of alternatives for the route as it enters Sudbury, and support for its terminus in either the downtown (Cedar Street) or at Ramsey Lake; and
- There may be a couple of alternatives to using Highway 17 and the Spanish River bridge between Jacklin Road and Old Nairn Road. One is a snowmobile trail east from Espanola on the south side of Highway 17. The other is Sandy Bay Road and Headquarters Road north of Highway 17 with a new bridge over the Spanish River that is currently being considered by the Township of Nairn & Hyman.



LAKE HURON NORTH CHANNEL CYCLING ROUTE STUDY

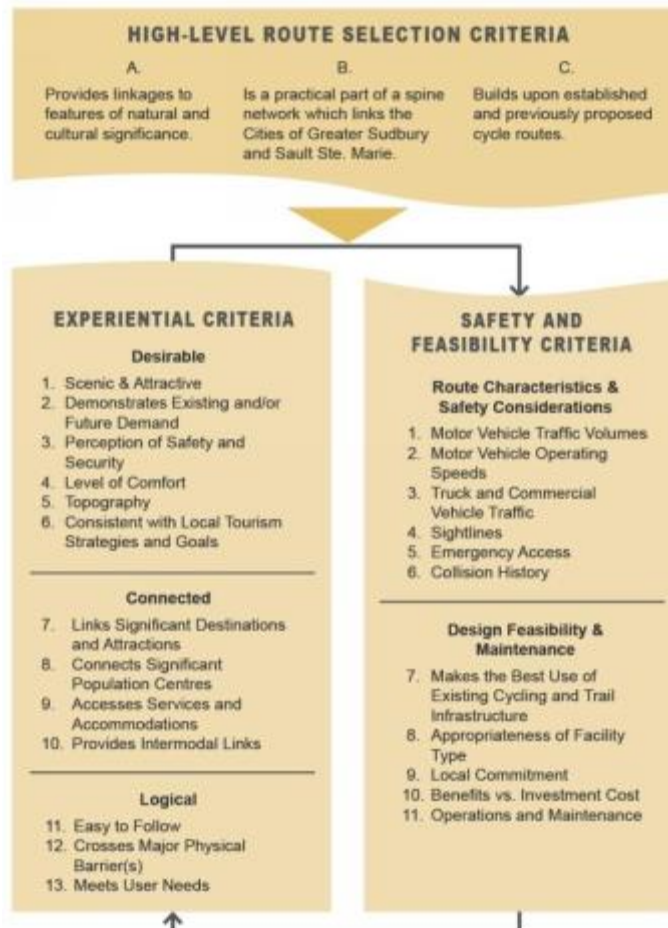
4.0 THE LAKE HURON NORTH CHANNEL CYCLING ROUTE

4.1 Background Analysis

The first stage of developing the proposed Lake Huron North Channel Cycling Route was to consolidate and digitally map the previously proposed cycling route as identified at the Northern Ontario Bike Summit in 2011. A detailed description of the proposed route was provided by Tourism Sault Ste. Marie. The study team created the route in GIS which was then used throughout the study process as the route was investigated and refined using route selection criteria outlined below.

4.2 Route Selection Criteria

One of the key inputs into the development of the recommended Lake Huron North Channel Cycling Route was the following route selection principles / criteria. These were developed by the study team and based on a 2011 MTO Study referenced in Section 1.2 and reviewed with the study team in the initial stages of the study. The criteria / principles were used as a guide throughout the route development process and were tailored to respond to the recreational / tourist nature of the route. The study team developed high-level criteria which addressed overarching goals and objectives for the route. In addition, two sets of more detailed criteria were developed which addressed the users experience as well as the routes safety and feasibility. Each of the proposed route segments were assessed based on each criterion utilizing information currently available.



In addition to the Route Selection Process, the study team also developed a detailed description for each of the proposed route selection criteria. These criteria have been developed based on current best practices and guidelines for regional cycling routes of a similar scope and scale. The detailed criteria for consideration listed in the chart below are intended to guide the assessment of the route against the individual criteria, and ultimately help Tourism Sault Ste. Marie confirm the preferred routes to be incorporated into the Lake Huron North Channel Cycling Route.

Step 1: High-Level Regional Route Selection Criteria	
A. Provides linkages to features of natural and culture significance.	<ul style="list-style-type: none"> The route provides good access to a number of key features of natural significance along the corridor (e.g. lakes, conservation areas, and major tourist destinations). Routes that provide strong, good and/or many connections to these key geographic features would receive a higher score; and The route provides access to key or major culture features / locations along the proposed corridor and throughout the different local communities. Routes that provide strong, good and/or many connections to these key geographic features would receive a higher score.
B. Is a practical part of a spine route which links the Cities of Greater Sudbury and Sault Ste. Marie.	<ul style="list-style-type: none"> The route provides cyclists with a logical connection from the City of Greater Sudbury along key on and off-road routes to connect to the City of Sault Ste. Marie; and Where possible, the route builds on the route goals and objectives outlined by Tourism Sault Ste. Marie.
C. Builds upon established and previously proposed cycle routes.	<ul style="list-style-type: none"> The route builds upon existing cycling routes and walking trails where possible. Proposed routes that follow and/or connect to already existing cycling routes would be scored higher; and Those routes that are thought to provide a high potential for cycling tourism and provides both long and short distance cyclists with touring options would receive a higher score.

Step 2: Experiential Criteria		
Category	Sub-Category	Description of Criteria
Desirable	1. Scenic and Attractive	<ul style="list-style-type: none"> The route provides direct access to or is in close proximity to natural areas and bodies of water; The route provides cyclists with rest areas and stopping areas with shade available; and Provides direct access to key natural features and destinations throughout the Region including but not limited to vistas and views from trails / routes, visual points of interest, areas for high quality photo opportunities and areas with significant cultural / historical landscapes and viewsapes.

Category	Sub-Category	Description of Criteria
Desirable Cont'd.	2. Demonstrates Existing and / or Future Demand	<ul style="list-style-type: none"> The route utilizes established and successful routes and is popular among cyclists; The route includes corridors with high potential for cycle tourism, such as abandoned railroads and roads where shoulders can be paved; and The route has been identified by cyclists as an important future and / or existing connection and there have been requests by local cyclists and/or stakeholders for the addition of facilities to improve the connection. A large number of requests indicates a higher demand for the connection.
	3. Perception of Safety and Security	<ul style="list-style-type: none"> The route provides the user with a sense of safety including access to emergency response providers, route lighting, informational signage, the presence of a designated cycling facility and access to key cycling amenities. A large number of features indicates a high perception of safety; and Routes with lower motor vehicle volumes are perceived to provide a higher sense of safety than routes with higher vehicle volumes and thus would receive a higher rating.
	4. Level of Comfort	<ul style="list-style-type: none"> The route should have a surface which provides riders with a higher sense of comfort while using the route (e.g. paved or granular surface). The presence of a paved facility indicates a higher level of comfort while facilities made of hard-packed earth indicate a lower level of comfort; and The route is designed at a width that is both safe and comfortable to accommodate cyclists of all ages and abilities. Paved shoulders should be a minimum of 1.2 m, one way pathways should be designed at a minimum width of 2.0m and two way pathways should be designed at a minimum of 3.0m (Reference: MTO Bikeway Design Guidelines 2012).
	5. Topography	<ul style="list-style-type: none"> Where vertical alignment is extreme cyclists with less experience or lower fitness levels may be discouraged from using the route; and Routes that have frequent or significant grades indicate a lower ranking level whereas routes with minimal grade variations indicates a higher ranking.
	6. Consistent with Local Tourism Strategies and Goals	<ul style="list-style-type: none"> The route supports the strategies and goals identified by Regional Tourism Offices and / or major local tourism organizations and is identified as a key route as part of these strategies. If the route is identified in a regional strategy it will receive a higher ranking.

Category	Sub-Category	Description of Criteria
Connected	7. Links Significant Destinations and Attractions	<ul style="list-style-type: none"> Includes primarily destinations of a regional significance e.g. Major bodies of water, Conservation Areas etc. but may also include important local destinations and attractions e.g. Local Community Centres, Schools, Historical Sites, Conservation Areas etc.
	8. Connects Significant Population Centres	<ul style="list-style-type: none"> Significant can refer to population as well as the significance of the centre in the regional context (i.e. main town in a rural regional area).
	9. Access to Services and Accommodations	<ul style="list-style-type: none"> The route provides access to services and amenities and the spacing of amenities at appropriate intervals (e.g. 60-100km) for cyclists travel. Daily needs include food, water, camping/rooming, washrooms; and Provides access to services that are sensitive to the needs of cyclists e.g. Bike Shops, accommodation and restaurants that are recognized by the Welcome Cyclists Program.
	10. Provides Intermodal Linkages	<ul style="list-style-type: none"> The route connects cyclists to transportation hubs (regional / local bus, ferries, rail etc.), with regularly scheduled arrival and departure times; and Where intermodal links are seasonal only, an alternate route should be provided in the off-season where possible.
Logical	11. Easy to Follow	<ul style="list-style-type: none"> The route has limited turns and is easy to follow; Lengthy unnecessary detours are avoided; The route is well marked and/or has easily recognizable permanent landmarks (natural or man-made); and Maps for existing routes are available to the public.
	12. Crosses Major Physical Barrier(s)	<ul style="list-style-type: none"> Route provides logical and appropriate crossings of major physical barriers such as railways, major highways, lakes and rivers; and Facilities to accommodate cyclists across barriers already exist or can be provided.
	13. Meets User Needs	<ul style="list-style-type: none"> Route location and facility respond to type and skill level of anticipated users. For example, the development of a link between a Conservation Area and nearby urban centre may be best accomplished with a multi-use pathway to accommodate less experienced, youth cyclists and families; and Provides access to existing and/or potential staging and parking areas, making the route attractive also to users who prefer to travel shorter distances.

Step 3: Safety and Feasibility Criteria

Category	Sub-Category	Description of Criteria
Route Characteristics & Safety Considerations	1. Motor Vehicle Traffic Volumes	<ul style="list-style-type: none"> • Lower motor vehicle volumes are more suitable/conductive to on-road cycling, and would receive a higher rating than routes with higher motor vehicle traffic volumes; • Higher motor vehicle traffic volumes can accommodate on-road cycling where vehicle speeds are low (e.g. along “main streets in urban centres); and • When motor vehicle traffic volumes exceed threshold levels then cycling facilities should be separated from motor vehicle traffic or an alternate route (parallel or nearby) should be sought. Threshold levels vary according to motor vehicle operating speed whereby volume thresholds are lower where operating speeds are higher (Reference: MTO Bikeway Design Guidelines 2012)
	2. Motor Vehicle Operating Speeds	<ul style="list-style-type: none"> • Lower motor vehicle operating speeds are more suitable/conductive to on-road cycling, and would receive a higher rating than routes with higher vehicle operating speeds; and • When motor vehicle operating speeds exceed threshold levels then cycling facilities should be separated from motor vehicle traffic where no alternate route (parallel or nearby) is available. Threshold levels vary according to motor vehicle operating speed whereby volume thresholds are lower where operating speeds are higher
	3. Truck and Commercial Vehicle Traffic	<ul style="list-style-type: none"> • Routes with lower truck and commercial vehicle percentages are more conducive/suitable for on-road cycling, and would receive a higher rating; • As truck and commercial vehicle percentages increase consideration needs to be given to wider cycling facilities to provide greater separation between trucks and cyclists; and • Once truck and commercial vehicles exceed threshold levels (10-12%) the cycling facility should be separated from the motor vehicle route (e.g. active transportation route within the right-of-way or an alternate route (parallel or nearby) should be sought. (Reference: MTO Bikeway Design Guidelines 2012)

Category	Sub-Category	Description of Criteria
Route Selection & Safety Considerations Cont'd.	4. Sightlines	<ul style="list-style-type: none"> Consideration needs to be given to both horizontal and vertical alignment of the roadway as part of evaluating sightlines. Variety in horizontal and vertical alignment can add to the scenic quality and interest/attractiveness to a cycling route. However, when this is combined with narrow pavement width and limited opportunity to add width, or where deep roadside ditches are present then cyclists' comfort level decreases. This becomes more of an issue where motor vehicle traffic volumes are higher.
	5. Emergency Access	<ul style="list-style-type: none"> Routes that are in locations where there is easy access by Emergency Service personnel (e.g. close to urban centres, on main roads etc.) would receive a higher rating than routes in more remote areas (back roads); Routes that provide users with additional emergency technologies and reference information (e.g. Quick Response (QR), GPS Coordinates and codes on information signs, key contact information on signage, distance of trailhead or key destination etc.) would receive a higher rating; and Where routes are off-road and outside of the road-right-of-way then access by Emergency Service personnel is typically more challenging. In these cases, the route would receive a lower rating.
	6. Collision History	<ul style="list-style-type: none"> Routes that are proposed in a location where collision information and history is available will be assessed based on this data. Should the proposed corridor have a significant number of collisions (motor vehicle or cyclist) it would receive a lower rating than routes on corridors which indicate fewer collisions.
Design Feasibility & Maintenance	7. Makes the Best Use of Existing Area Cycling Infrastructure	<ul style="list-style-type: none"> The route follows and should be aligned to make the best use of the existing facilities where appropriate.
	8. Appropriateness of Facility Type	<ul style="list-style-type: none"> There is sufficient space to develop a cycling facility where one has not been constructed yet, regardless of whether or not it is part of an approved Master Plan; and The facility type is consistent with the road features (e.g. If the posted speed on the road is 80km / h + with high traffic volumes it is recommended that separated cycling facilities be considered. (Reference: MTO Bikeway Design Guidelines 2012)

Category	Sub-Category	Description of Criteria
Design Feasibility & Maintenance Cont'd.	9. Local Commitment	<ul style="list-style-type: none"> • There is a demonstrated commitment at the local/regional level to providing cycling facilities in that location. Demonstration of commitment may be defined as (in order of importance): • Existing facilities already in place along some parts of the route (completing the connection closes gaps/completes missing links along an existing route or connects two established cycling routes/loops); • A route that is in an approved master plan and the design of the facilities is complete and funding has been allocated; • The route is in an approved master plan and the design has already been completed but funding is not yet in place; • A route is in an approved master plan with neither the design completed nor the funding in place; and • The route is not part of an approved master plan.
	10. Benefits vs. Investment Cost	<ul style="list-style-type: none"> • A cycling facility can be implemented at a reasonable cost without unnecessarily compromising cyclist safety; • Overall, the benefits associated with implementing the proposed cycling facility justifies the cost; and • If funding is currently available for implementing cycling facilities, the required design makes efficient use of available funding.
	11. Operations and Maintenance	<ul style="list-style-type: none"> • The route is well maintained to ensure that surfaces are considered rideable or useable and safe by cyclists. Maintenance agreements that are already in place indicates a higher operational / maintenance ranking; and • The route can be found within a region or local municipalities which have developed a trail or cycling facility maintenance strategy or agreement pertaining to operations and maintenance of the facility. Those routes which would have an agreement within their jurisdiction would have a higher ranking.

4.3 Existing Conditions & Field Investigation

The consultants undertook field investigations to assess the existing conditions of the proposed Lake Huron North Channel Cycling Route on two (2) occasions.

On May 17 and 18 2012, members of the consulting team travelled the proposed route from end to end by automobile, the logging route GPS coordinates, noting and photographing apparent riding surface conditions.

From June 4-8 2012, a member of the consulting team, accompanied by a member of the Steering Committee, travelled the proposed route and alternate route segments by bicycle, experiencing the riding surface conditions as well as noting and photographing points of interest, attractions, services and facilities that would be of interest to cycle tourists.

Information from the field investigations was consolidated to prepare a proposed route map (see Figure 1 – Preliminary Route). An online digital version of this map was overlaid on Google Earth with embedded photographs from the field investigations to assist stakeholder and the study team in confirming the route alignment (see Section 3.2). In addition, information gathered during the field investigations was used to prepare an assessment of the proposed route and alternative route segments, using the route selection criteria described in Section 4.2. Tables presenting the detailed assessment summaries by route segment can be found **Appendix B**. Summaries of the assessment by route segment are provided below:



4.3.1 Gros Cap to Sault Ste. Marie

This route segment is approximately 24.7km in length and scores well in many of the route selection criteria. It provides a connection from Gros Cap, a popular cycling destination in Prince Township, to the Hub Trail in two locations. The Hub Trail is a high quality bicycle route that is primarily off-road, and is the focal point of Sault Ste. Marie's trail and cycling system.

The route provides a good east-west connection through the north central part of the city and there is strong local commitment to providing a cycling facility in this location. Paved shoulders already exist along a portion of the route. It provides a direct connection to a full range of services for cyclists visiting Sault Ste. Marie and also provides access to a number of destinations that serve the local population including schools, a community centre and Fort Creek Conservation Area.

It diverts cyclists away from some of the busier roads in the north central part of the city, and a significant portion of the route, particularly in the urban area can be created at a relatively low cost.

4.3.2 Hiawatha Highlands to Sault Ste. Marie

This route scores well on many of the route selection criteria. At approximately 8.8km in length it is a popular route for cyclists heading north out of the city and diverts them away from very busy roads such as Great Northern road where traffic volumes and commercial vehicle percentages are much higher. The route segment follows Old Garden River Road, Landslide Road and 6th Line east where it connects with Highway 17 north of the City, and the main/only route between Sault Ste. Marie and Thunder Bay.

There is a strong local commitment to providing cycling facilities in this location as it connects directly to the Hub Trail in the north east corner of the city, provides a direct connection to existing and popular trails at Hiawatha Highlands, and already has a paved shoulder along a portion of the route.

This route segment also provides good access to a full range of services including food, lodging and a local bike shop for parts, repairs and information about local facilities and services that would appeal to cyclists.

4.3.3 Sault Ste. Marie Waterfront to Highway 17B

This route follows Queen Street from its intersection with the Hub Trail at Churchill Boulevard to its connection with the route segment along Highway 17B heading towards Echo Bay. This route segment measures approximately 8.5km in length and near its eastern end it follows a designated cycling route that is being created as part of a new neighbourhood in Sault Ste. Marie.

This segment scores well on most of the route selection criteria. Sault Ste. Marie is one of the top destinations along the entire North Channel Route and this segment connects many of the key attractions and points of interest in the City. It also provides access to a full range of cycle tourism facilities and services. There is a strong local commitment to providing cycling facilities in this location and the route builds upon previously established cycling routes in the City's Cycling Master Plan. It is a practical part of spine route with paved shoulders already in place in some sections, and there is space to develop a cycling facility at a reasonable cost in sections where one has not been created.

It is a popular route for cyclists heading east out of the city and it diverts cyclists away from very busy roads such as Trunk Road. For cyclists traveling into the city from the east, this route directs cyclists along the waterfront, connects directly to the Hub Trail, and supports local tourism efforts related to the waterfront and downtown.

It also directs cyclists to an international border crossing which supports the potential for an international cycling loop associated with the Great Lakes.

4.3.4 Highway 17B to Echo Bay

This segment is 16km in length and uses paved shoulders on Highway 17B.

The segment scores well on most of the route selection criteria. It provides attractive views of the St. Mary's River and passes through Garden River First Nation, which would be of interest to many cycle tourists. Many cycle tourism facilities and services are available in Garden River and/or Echo Bay – visitor information, bicycle repair and emergency health care are not available.

Garden River could be a destination for short day trips from Sault Ste. Marie. Ojibway Park could be a destination for short overnight trips from Sault Ste. Marie.

Highway 17B is neither designated nor signed as a bicycle route. Although it provides a paved shoulder, the shoulder is narrow and broken in some areas and the Highway occasionally experiences high volumes of automobile and commercial vehicle traffic.

4.3.5 Echo Bay to Bruce Mines, Route A & B

Route A, which follows Highway 17B, Bar River Road, Government Road, Centre Line Road, 5th Concession Road, Caribou Road and Cunningham Street, is approximately 45km in length. Route B, which uses Highway 638 is approximately 52km.

Both routes score well on most route selection criteria, are scenic and attractive, and both use secondary roads. All of Route B is paved, while approximately 25% of Route A uses gravel surface roads.

Route A is generally flat with rolling hills, while Route B features a number of long, steep climbs that would be challenging for beginner and intermediate cyclists. St. Joseph Island, a popular destination for cyclists, can be accessed via a link from Route A.

Many cycle tourism facilities and services are available in Bruce Mines – visitor information, bicycle repair and emergency health care are not available. Limited facilities and services are available in Desbarats (Route A, only). Bruce Mines could be a destination for overnight trips from Sault Ste. Marie (approx. 75km) but is likely too far to be a return day trip for most cycle tourists.

Neither Route A or B is designated nor signed as a bicycle route. Both routes have a level crossing of 4-lane Highway 17.

4.3.6 Bruce Mines to Little Rapids and Thessalon

This segment uses a short section of Highway 17 and a short section of paved street in Bruce Mines, but mostly paved secondary roads. Total length is approximately 29km.

The segment scores well on many route selection criteria. It is scenic and attractive, flat to gently rolling, all on paved surfaces. Both Bruce Mines (75 km) and Thessalon (approx. 104 km) are destinations and possible overnight stops for tours from Sault Ste. Marie, with many points of interest, attractions, and cycling facilities and services. Thessalon has emergency health care. Neither community offers travel information or bicycle services. Little Rapids offers limited cycling facilities and services.

The segment is not designated nor signed as a bicycle route, and there is a level crossing of Highway 17 (2-lane).

4.3.7 Thessalon to Iron Bridge

This segment uses a large number of secondary roads, of which approx. 30% are gravel surface. Total length of the segment is 40km.

The segment scores well on most route selection criteria. It is scenic and attractive while connecting two large lakes (Brownlee and Bright) and providing views of the North Channel (in Thessalon). Thessalon, Brownlee Lake and Iron Bridge are destinations, with Brownlee Lake and Iron Bridge more than a day's ride from Sault Ste. Marie for most cyclists. With the exception of bicycle repair facilities, all cycle tourism facilities and services are available in this segment. Iron Bridge is the western terminus of the Deer Trail tour route which is suitable for cycling.

The segment is not designated nor signed as a bicycle route and there are two (2) level crossings of Highway 17.

4.3.8 Iron Bridge to Blind River, Route A & B

Route A which uses Highway 17 is 26km in length, while Route B is longer at 32km using secondary roads and remote ATV/Snowmobile trails.

Route A scores well on many route selection criteria, particularly scenic and attractive, but without a paved shoulder or any type of bicycle facility on Highway 17 scores very low on level of comfort given the consistently high volumes of automobile and commercial vehicle traffic.

Route B is less scenic and attractive and the ATV/Snowmobile trail section (approx. 30%) is very remote with surface conditions that would be impassable for many cyclists.

Blind River, the midpoint between Sault Ste. Marie and Sudbury, is a destination with a full range of facilities and services for cycle tourists as well as many attractions and points of interest.

4.3.9 Blind River to Algoma Mills

This short segment (13km) uses paved streets in Blind River, the Blind River bicycle paths and ATV/Snowmobile trails near Algoma Mills that parallel Highway 17.

The segment scores low on two key route selection criteria: scenic and attractive; and level of comfort (due to poor surface ATV/Snowmobile trails).

Blind River is a destination with a full complement of services and facilities for cycle tourists.

The bicycle trails are signed but not designated as part of the Lake Huron North Channel Cycle Route. None of the streets and none of the ATV/Snowmobile trails are signed nor designated as a bicycle route. There are a total of three (3) level crossings of Highway 17.

4.3.10 Algoma Mills to Spanish

This segment uses Highway 17 as well as paved and gravel surface secondary roads. It is approximately 40km in length.

The segment is scenic and attractive with views of the North Channel and the Serpent River. It links Spanish, a significant destination for an overnight trip from Sudbury (approx. 130km), and a variety of attractions including scenic lookout walking trails, waterfront parks and a Pow Wow ground. There is also a link to the eastern terminus of the Deer Trail touring route.

The segment's reliance on the very narrow cycling lane on Highway 17 for approximately 40% of the route, and gravel surface secondary roads for almost 30% is a major weakness. In addition, there are problems with crossing a number of physical barriers including a rail line level crossing, barricaded road bridge and Highway 17 level crossings. Travel information, bicycle shops and emergency health care are not available on this segment.

None of the roads and streets are designated nor signed as a bicycle route.

4.3.11 Spanish to Espanola

This is one of the longest and most attractive segments at approximately 55km, using Highway 17, paved and gravel surface secondary roads, and paved streets.

Frequent views and close riding along the Spanish River, while passing through a variety of landscapes from Canadian Shield to hardwood forests to pasture land make this segment very scenic and attractive. Both Spanish and Espanola are significant destinations with a full complement of cycle tourism services and facilities. Espanola is a long day ride from Sudbury (75km one way) or a moderate length overnight ride. Chute Provincial Park at Massey is a "don't miss" attraction and a possible destination for an overnight ride from Sudbury (approx. 115km). In Espanola, cyclists can link via Highway 6 to Manitoulin Island and its variety of riding opportunities.

The use of Highway 17 for approximately 4km and gravel surface secondary roads for another 11km, combined with an unapproved level rail line crossing reduces the overall attractiveness of this segment.

None of the roads and streets are designated nor signed as a bicycle route.

4.3.12 Espanola to Nairn Centre

This relatively short segment of 20km uses very narrow cycling lanes on Highway 17 and its busy bridge crossing of the Spanish River along with paved secondary roads.

The segment is not overly scenic or attractive, but benefits from its connection to Espanola as a full service destination and its link via Highway 6 to Manitoulin Island and its many cycle touring opportunities.

Reliance on busy Highways 17 and 6 that both lack a suitable bicycle facility is a major drawback.

None of the roads and streets are designated nor signed as a bicycle route.

4.3.13 Nairn Centre to Whitefish

This approximately 25km segment is entirely on paved secondary roads.

Cycling mostly flat or gently rolling terrain through lowland forests, rural farmlands and rural communities on low volume paved secondary roads makes this segment a pleasant riding experience. In addition, the overpass crossing of Highway 17 adds to its relaxed atmosphere. Approximately midway between Nairn Centre and Whitefish there is a paved secondary road link to Fairbanks Lake Provincial Park, which is an attractive destination and easy day trip or overnight ride from Sudbury (approx. 45km).

Cycle touring facilities and services are limited to a very few restaurants and some retail, mostly in Nairn Centre and Whitefish. Neither of these villages would be considered a destination.

None of the roads and streets are designated nor signed as a bicycle route.

4.3.14 Whitefish to Sudbury West

A large number of secondary roads and trails comprise this segment of approximately 30km that brings riders to the western side of Greater Sudbury.

The combination of small lakes, rural streams, Canadian Shield, forested areas and rural communities make this segment very scenic and attractive. Centennial Park, Simon Lake Conservation Area and Kelly Lake walking/hiking trails are key attractions. Centennial Park with its beach area and camping is an attractive destination for short day and overnight trips from the centre of Sudbury (approx. 33km). The community of Lively near the midpoint of the segment is a full service destination. Some parts of the segment are shared with the Trans Canada Trail.

Rough surface ATV/Snowmobile trails and a challenging level crossing of Highway 17 are drawbacks.

None of the roads, streets or trails are designated nor signed as a bicycle route.

4.3.15 Sudbury West to Sudbury Centre, Routes A and B

Route A is approximately 4km in length and leads to the centre of Sudbury at Cedar Street. Route B at approximately 6km terminates on the shores of Ramsey Lake.

Neither route is overly attractive or scenic, although a terminus at Science North or Bell Park on Ramsey Lake is the more attractive option. Both routes use a combination of paved streets and some off road trails, with the Ramsey Lake paved trails (Route B) a more comfortable riding option than the Ruisseau Junction Creek trails (Route A). Sudbury is, of course, a full service destination.

The pedestrian tunnel on Route A used to cross rail lines in downtown Sudbury requires cyclists to dismount and walk. Navigating the large number of city streets comprising Route A can be confusing, as only the Ruisseau Junction Creek trail is signed as a bicycle trail. Route B is more direct and less difficult to navigate even though only the Ramsey Lake trails at the end of the route are signed.

See Section 4.5 for details and maps of the recommended primary route.

4.4 Cycling Facility Types & Design Alternatives Guide

4.4.1 About the Guide, Users & Design Considerations

A well-designed and properly maintained Cycling Route is a critical part of the users' experience. For some users the design and maintenance of a facility will influence their decision to use it again at a later date. Cyclists tend to vary in age, motivation and physical ability. Therefore, a "one size fits all" design approach does not apply. It is important to try and match the cycling facility type and design with the type of experience that is desired. The Lake Huron North Channel Cycling Route has been developed to achieve the predictable and recognizable quality and consistency in the design to enhance the experience, enjoyment, tourist focus and safety for all potential users and add value to the communities through which the route passes.

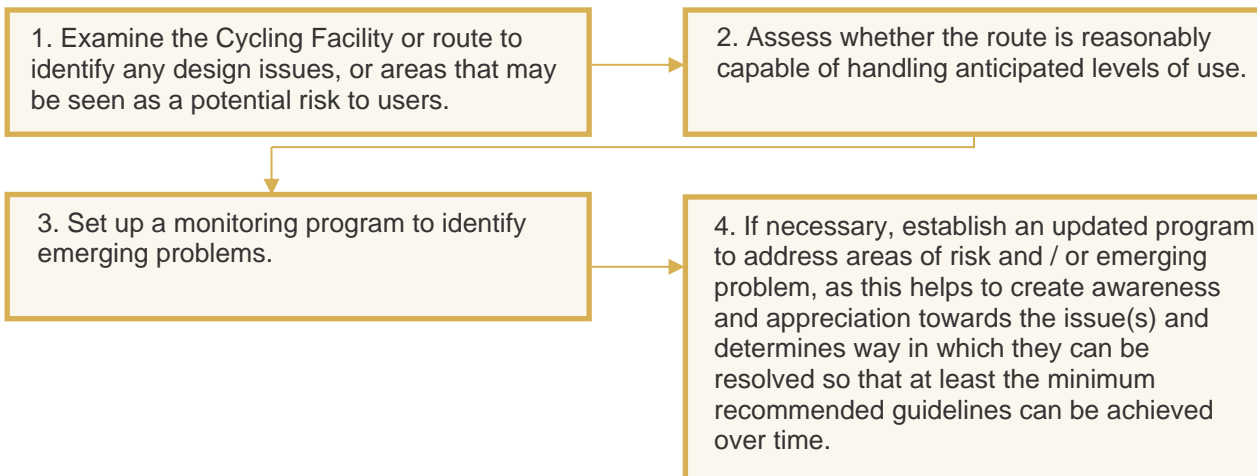
Key Consideration: *The guidelines are not intended to be prescriptive, rather they are guidelines which should be treated as a reference to be consulted during the development and construction of the Cycling Route. They are not meant to be inclusive of all design considerations for all locations, nor are they meant to replace "sound Engineering judgement". The intent is to have regard to the individual guidelines when implementing AT facilities at specific locations to arrive at the most appropriate solution. In some cases an interim solution may be appropriate where the desired long term solution cannot be achieved in the short or mid-term, provided that the interim solution meets users' needs and safety considerations.*

4.4.1.1 How to Use This Guide

Purpose: The purpose of this guide is to assist Tourism Sault Ste. Marie staff and its partners in making informed decisions about cycling facility design.

Information Included: The guide provides general information on cyclists and their needs. Key features associated with various cycling facility types for consideration along or feeding into the Lake Huron North Channel Cycling Route.

The information included in these guidelines is thought to represent current accepted design practices in North America, and incorporates ongoing research and experience gained by the MMM team and other in cycling facility design.



The application of these guidelines in the development, implementation and operation of individual segments will require specific consideration of a number of factors including public safety, local and / or provincial jurisdiction requirements and by-laws. Where existing cycling facilities are to be incorporated but do not meet the minimum recommended conditions suggested in these Guidelines, the approach presented in section 4.4.2 should be considered.

4.4.1.2 Cyclists & Their Needs

The mechanical efficiency of the bicycle allows users of all ages to travel greater distances at a higher rate of speed than pedestrians. Some bicycles, including the “mountain” or “hybrid” can travel easily over stonedust and gravel surfaces, whereas, traditional narrow-tired touring and racing bicycles require very well compacted granular surfaces or hard surface pavements such as asphalt. Distances covered vary widely from a few kilometers to well over a hundred depending on the fitness level and motivation of the individual cyclist.

Although cyclists have the right to access the extensive existing public roadway system, with the exception of the 400 series and major highways, many inexperienced cyclists feel unsafe sharing the road with automobiles. Some do not have the desire or skill level to ride in traffic. Off-road trails, shared with pedestrians offer the less experienced and less confident cyclist a more comfortable environment. Cyclists that travel longer are more likely to focus a significant portion of their route on the roadway network, and often seek out quieter, scenic routes over busier roads. Although the average travel speed for a cyclist on a trail is in the range of 15-20 km/h and on a road 15-30 km/h, speeds in excess of 50 km/hr can be attained while traveling downhill on roads and some hard surface trails. Where excessive speed is a potential issue on trails, speed limits and warnings should be posted to discourage fast riding and aggressive behaviour.

Key Consideration: *When using roads, cyclists generally travel 0.5 – 1.0m from the curb or other obstruction because of the possibility of accumulated debris, uneven longitudinal joints, catch basins, steep cross slopes, or concern over hitting a pedal on the curb or handlebar on vertical obstacles. However, when cyclists use or cross a public roadway they are considered vehicles by law and are expected to follow the same traffic laws as motorized vehicles.*

4.4.1.3 Design Considerations

Accessibility	Personal Safety
<p><i>Opportunities for recreation, leisure and active participation should be available to all members of the community. Outdoor trails and trailways which offer a range of level of difficulty will allow each individual to choose their preferred route based on their abilities and desired level of challenges.</i></p> <p>Approximately one in eight Canadians suffer from some type of physical disability. Mobility, agility, and pain-related disabilities are by far the most common types, each accounting for approximately 10% of reported disabilities nationally. Disability increases with age: from 3.3% among children, to 9.9% among working-age adults (15 to 64), and 31.2% among seniors 65 to 74 years of age. Disability rates are highest among older seniors (75 and over), with fully 53.3% in this age group reporting a disability.</p> <p>AODA Criteria Include:</p> <ul style="list-style-type: none"> • Operational Experience; • Width; • Running Slope; • Cross Slopes; • Total Slope; • Surface; • Changes in Level; and • Signage. <p>When designing and implementing cycling facilities, the guidelines should be utilized to ensure that the needs of cyclists are accommodated and satisfying the requirements of the AODA to the greatest extent possible.</p>	<p>To the extent that it is possible, the cycling routes and trails should be designed to allow users to feel comfortable, safe and secure. Although personal safety can be an issues for all, women, the elderly, children, are among the most vulnerable groups. Principles of Crime Prevention Through Environmental Design (CPTED) should be considered and applied to help address security issues concerning trail use, particularly in locations where trails are lightly used, isolated or in areas where security problems have occurred in the past. The four main underlying principles of CPTED are:</p> <ul style="list-style-type: none"> • Natural Access Control: deters access to target and creates a perception of risk to the offender • Natural Surveillance: The placement of physical features and / or activities and people that maximizes natural visibility or observation. • Territorial Reinforcement: defines clear borders of controlled space from public to semi-private to private, so that users of an area develop a sense of ownership. • Maintenance: allows for the continued use of space for its intended purpose. <p>It is important to note that in a study such as this, the issues of personal safety will be considered but may in some cases be influenced based on the route's tourism opportunities.</p>

Recommendation	When implementing the Lake Huron North Channel Cycling Route the underlying principles of Crime Prevention Through Environmental Design (CPTED) should always be considered including natural access control, natural surveillance, territorial reinforcement and maintenance.
Recommendation	Properly located entrances, exits, fences, landscaping and lighting should direct both foot and automobile traffic in ways that discourage crime.

4.4.2 Cycling Facility Types

The Cycling Route has been divided into two classes of facilities:

Off-Road Facilities these refer to routes that are located i) within a road right of way but operate separately and independently of the travelled portion of the road or ii) outside of the road right of way through open spaces, valley and parklands, as well as linear corridors such as abandoned railway lines, unopened road allowances, utility corridors and storm water retention ponds.



Figure 4.1 – Example of Off-Road Facility

Credit: www.homeaway.com

On-Road Facilities which refer to facilities that are located on or along existing roads.



Figure 4.2 – Example of On-Road Facility

Credit: Township of Woolwich

On and off road facilities can also be described in terms of their degree of separation from motor vehicles. The facility types and categories have been described in further detail below:

Shared Space	Dedicated Space	Separated Facilities
<ul style="list-style-type: none"> Signed-only Cycling Routes on Local Roads Signed-only Cycling routes on Wide Lanes Signed Cycling Routes with Sharrows 	<ul style="list-style-type: none"> Signed Cycling Routes with Paved Shoulders Bicycle Lanes 	<ul style="list-style-type: none"> In-boulevard Cycling Facilities within the Road Right-of-Way Multi-use Trails outside the Road Right-of-Way

Generally associated with lower volume, lower speed with roads less facility separation



Generally associated with higher volume, higher speed roads with greater facility separation

4.4.2.1 Facility Selection Tool

Facility selection is an important component in the route development process. The following facility selection process will assist Tourism Sault Ste. Marie and those responsible for selecting appropriate facilities for the Lake Huron North Channel Cycling Route.

The facility selection process provides a consistent framework that is easy to apply, technically based (was developed based on current research and knowledge of facility type selection), and allows flexibility to account for the differences in physical and operational characteristics from one site to another. The selection tool does not tell designers when and when not to provide a certain facility type but rather sets out a process for selecting an appropriate facility type given the context and readily available data.

Key Considerations:

- Active Transportation user groups vary widely in levels of skill, experience and confidence;
- No single type of active transportation facility design alternative will suit every user;
- Designers need to gather information on existing and future conditions in order to identify the needs and safety concerns for users in a specific location;
- The choice to provide a separated versus non-separated facility is not a simple “yes or no” answer, it is based on the consideration of a number of factors described throughout this chapter;
- Criteria or thresholds to select one facility type over another need to be flexible to be able to accommodate each site’s unique set of circumstances; and
- No facility design can overcome a lack of operator skill or lack of attention by the user.

The purpose of this chapter is to set out a traceable process for the selection of an appropriate bicycle facility type that best suits a given design situation. The following figure provides an overview of the facility selection process which is discussed in further detail on the following pages.

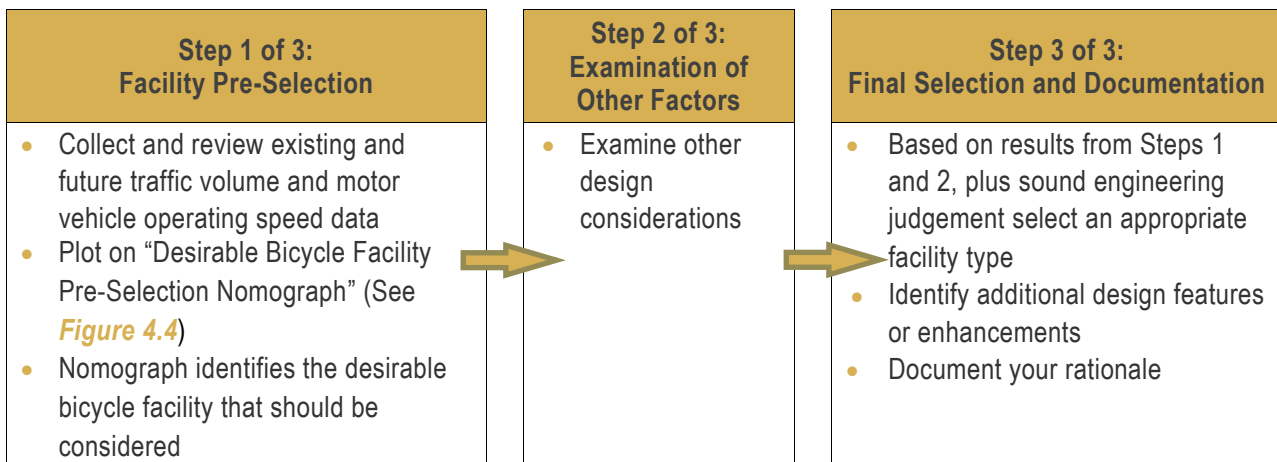


Figure 4.3 – An Overview of the 3-Step Facility Type Selection Process

Step 1 of 3: Facility Pre-Selection

The technical basis for the facility type selection nomograph is based on similar tools that have been implemented internationally with success. The principles and suggested thresholds in the nomograph are understood to be based on two lane, two way roadways. However the principles are still applicable to multi-lane roadway situations (within the North American context, there are numerous multi-lane roads which serve as important connectors in urban transportation networks). In these instances, practitioners should consider the operating speed, total combined traffic volume and mix of vehicles travelling in the lanes immediately adjacent to the cycling facility since these are believed to have the greatest effect on cyclists.

Facility pre-selection is the first step in the bicycle facility selection process, and should not be used by itself as the justification for facility selection.

Facility pre-selection is achieved by plotting the 85th percentile motor vehicle operating speed against the average daily traffic volume on the “*Desirable Bicycle Facility Pre-selection Nomograph*” illustrated in *Figure 4.4*. This step is followed by documentation and analysis of other factors/conditions as part of Step 2.

Step 2 of 3: Examination of Other Factors

The nomograph may aid practitioners in pre-selecting the desirable bicycle facility type. However, this facility type may not always be the most appropriate solution for a given situation due to other design factors. The following factors should also be considered:

- 85th percentile motor vehicle operating speeds;
- Motor vehicle volumes;
- Function of street or road or highway;
- Vehicle mix;
- Collision history;
- Sightlines and available space;
- Secondary criteria include:
 - Anticipated users in terms of skill and trip purpose; Level of bicycle use;
 - Costs;
 - Function of link or route;
 - Type of roadway improvement project;
 - On-street parking; and
 - Frequency of intersections for urban situations.

Step 3 of 3: Selection of Appropriate Facility Type and Documentation

In Step 3 the practitioner must compare the bicycle facility identified in Step 1 with the factors analysed in Step 2. If the practitioner finds that the site conditions from Step 2 do not support the result of Step 1, then another facility type should be considered that may be more compatible with site conditions. Once a final decision regarding the appropriateness of the facility

type for the specific roadway section being considered is made, the practitioner may identify additional design features or enhancements that may be considered.

Documentation is an important component of this step. The practitioner should document each decision made during the bicycle facility type selection process, the steps taken to reach each decision and their rationale.

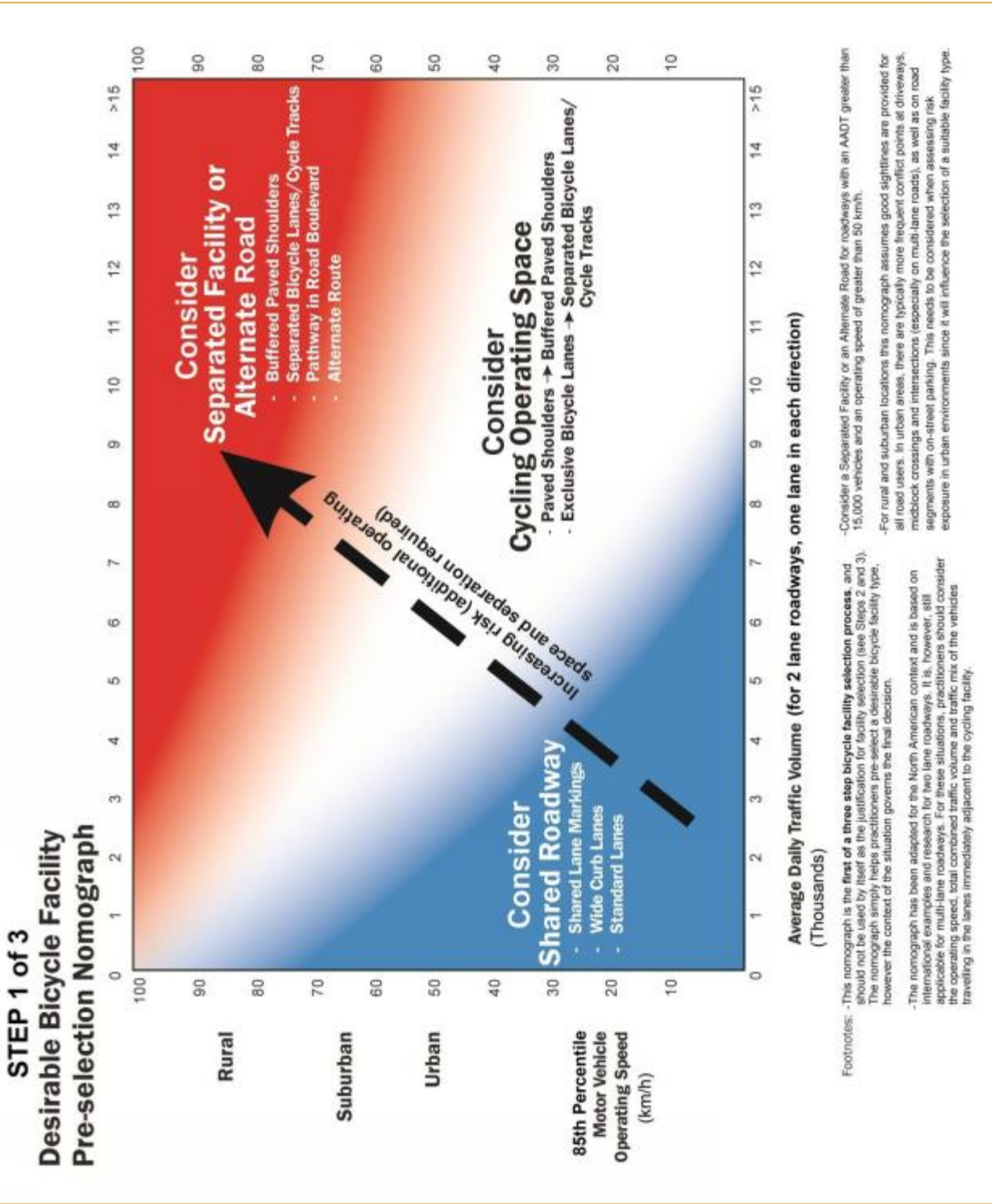


Figure 4.4 – Desirable Bicycle Facility Pre-Selection Nomograph

Recommendation

That the Facility Selection Nomograph be considered as a tool for pre-selecting a candidate active transportation facility type for various sections of the Lake Huron North Channel Cycling Route.

Sections 4.4.2.2 and 4.4.2.3 provide detailed information on the following bicycle facility types:

On-Road Cycling Facilities:

- Signed-only Cycling Routes on Local Roads
- Signed-only Cycling Routes with Wide Lanes
- Signed Cycling Routes with Sharrows
- Signed Cycling Routes with Paved Shoulders
- Bicycle Lanes

Off-Road Cycling Facilities:

- In-boulevard Cycling Facilities within the Road Right-of-Way
- Multi-use Trails outside the Road Right-of-Way

4.4.2.2 On-Road Cycling Facilities

In terms of public policy, it is important to acknowledge that ***a bicycle is formally recognized as a vehicle by the Province of Ontario, as outlined in the Highway Traffic Act, R.S.O., 1990.*** Therefore, cyclists have the right to share all classes of roadways, including highways, arterials, collectors and local streets, with the exception of the 400 series highways or other highways/roads where cycling has been prohibited by municipal by-laws. Motorists are prohibited by municipal by-law from driving or stopping in designated bike lanes, except for emergency avoidance manoeuvres or breakdowns.

Key Principle for Roadway Design:

“Assume every road is a cycling road”

Therefore, local municipalities along the route should consider bicycle friendly design guidelines for all streets, whether a road is designated as part of the cycling route or not. Bicycle friendly roadway features typically include among other things:




- Wide curb lanes;
- Drainage grates that are bicycle friendly and ideally located out of the desired path for cycling; and
- Traffic control devices that are programmed with bicycles in mind, particularly detector loops that have their sensitivity adjusted to allow bicycles to actuate a traffic signal.

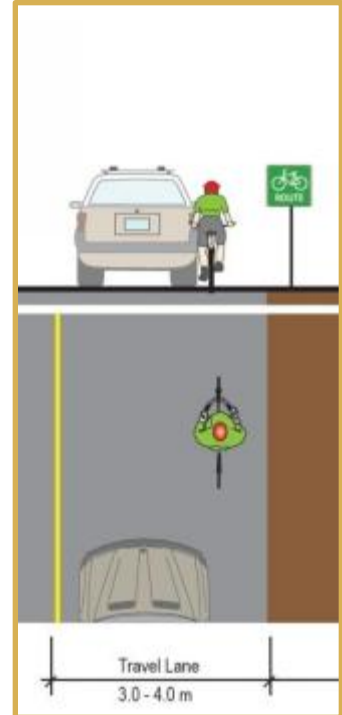
Signed-only Cycling Routes on Local Roads

DEFINITION: Signed-only Cycling Routes are routes where both motorists and cyclists share the same vehicular travel lane and 'Bicycle Route Marker' signs are used to provide route guidance. They are typically installed on quiet, residential Local / Collector streets. Aside from 'Bicycle Route Marker' signs, there are generally no other provisions used for this facility type.

Key Considerations:

- Bicycles and motor vehicles share the right-most travel lane, no physical space is dedicated for bicycle use only;
- Design does not include pavement markings for bicycles;
- Marked with 'Bicycle Route Marker' signs which may be supplemented by optional 'Share the Road' signs;
- Should typically only be signed as on-road bike routes where acceptable (e.g. lower) motor vehicle operating speeds and traffic volumes exist; and
- Should be supported by education programming for both cyclists and motorists.

	Bicycle Route Marker	Share the Road sign	Supplementary Share the Road tab
Sign / Code	 IB-23	 WC-20	 WC-20S
Size	450 mm x 450 mm	600 mm x 600 mm	600 mm x 300 mm



Typical Applications:

- Typical for residential streets where motor vehicle traffic volumes and speeds are low, and rural roads where traffic volumes are low and adequate sightlines exist.
- Adding edge lines in urban areas may be a suitable where a road segment has insufficient width or where the removal of on-street parking to implement a designated bike lane is not supported by area residents.

Experience in other municipalities:

- Suggests that by adding edge lines (where feasible) a minimum of 1.2 m from the curb face along with implementation of parking restrictions during weekday commuting and school travel hours there may be also be a positive traffic calming effect through a reduction in vehicle speed and increased level of comfort for cyclists.



Recommendation	Signed-only cycling routes are appropriate for local urban and rural streets where traffic volume is low and speeds are low to moderate.
Recommendation	On low volume rural roads with limited truck traffic, good sight lines and physically constrained rights-of-way, the route may be designated as a cycling route, with cyclists and motorists expected to share the same lane. "Share the Road" signs may be erected at strategic locations to communicate this message to all road users in addition to bike route signs.




Signed Only Cycling Routes with Wide Curb Lanes

DEFINITION: Signed-only Cycling Routes with Wide Curb Lanes are similar to Signed-only Bike Routes with the exception that the travel lane shared by motorists and cyclists is wider than the standard motor vehicle travel lane (e.g. 4.0 to 5.0 m). The extra width allows motorists and cyclists to travel side-by-side more comfortably. Travelled lane widths should not be more than 5.0 m wide as this may encourage unsafe passing by motorists.

Key Considerations:

- Bicycles and motor vehicles share the right-most travel lane, no physical space is dedicated for bicycle and no pavement markings for bicycles;
- Marked with 'Bicycle Route Marker' signs which may be supplemented by optional 'Share the Road' signs;
- Can often be retro-fitted on a 4-lane cross-section by narrowing the inside travel lanes;
- 'Share the Road' signs and sharrows should be considered at pinch points;
- Wide lanes should have sufficient width to allow motorists to pass cyclists without encroaching on an adjacent travel lane (if one exists); and
- The wider travel lane provides more space for cyclists.



	Bicycle Route Marker	Share the Road sign	Supplementary Share the Road tab
Sign / Code	 IB-23	 WC-20	 WC-20S
Size	450 mm x 450 mm	600 mm x 600 mm	600 mm x 300 mm

Typical Applications:

- Typical for multi-lane roads with wide right-most travelled lanes which may be created by narrowing the inside travel lanes.

Research Indicates...

That as lane widths begin to exceed 5.0 m this tends to increase confusion and improper lane use by motor vehicles in congested urban environments, and may encourage unsafe passing on the right.






Recommendation	The minimum recommended width for a signed-only cycling route with a wide curb lane is 4.0 m. The maximum recommended width is 5.0 m.
Recommendation	Where the width of a wide curb lane exceeds 5.0 m along a designated cycling route, the application of shared use lane pavement markings or bike lane markings may be considered to indicate the presence of cyclists on the roadways to motorists.

Signed Cycling Routes with Sharrows

DEFINITION: Shared use lane markings, also called “sharrows”, are symbols placed on the pavement surface in the intended area of bicycle travel. Sharrows provide added route guidance and help cyclists position themselves appropriately in the travelled lane. Sharrows also increase driver awareness of the presence of cyclists and help deter unsafe passing manoeuvres by motorists.

Key Considerations:

- Similar characteristics to the Signed-only Cycling Route where bicycles and motor vehicles share the right-most travel lane;
- Pavement markings indicate appropriate positioning for cyclists. Cyclists align their front wheel with the point on the chevron;
- Especially useful in congested areas where traffic is generally moving slowly (e.g. a “downtown” street or urban centre);
- Clear pavement markings and signs illustrate the concept of “Share the road” within space-confined roadways; and
- Can be an appropriate solution for urban downtown / main street areas where on-street parking cannot be removed to implement dedicated bike lanes.

	Bicycle Route Marker	Share the Road sign	Supplementary Share the Road tab
Sign / Code	 IB-23	 WC-20	 WC-20S
Size	450 mm x 450 mm	600 mm x 600 mm	600 mm x 300 mm

Typical Applications:

- Placement of the Sharrow symbol indicates to cyclists where they should be traveling on the road (e.g. approximately 1.0 m from the curb where there is no on-street parking and 3.4 m from the curb where there is on-street parking on a multi-lane road).

Recommendation	Signed-only cycling routes street parking to implement a designated bike lane is not supported by area residents.
Recommendation	On low volume rural roads with limited truck traffic, good sight lines and physically constrained rights-of-way, the route may be designated as a cycling route, with cyclists and motorists expected to share the same lane. “Share the Road” signs should be erected at strategic locations to communicate this message to all road users.

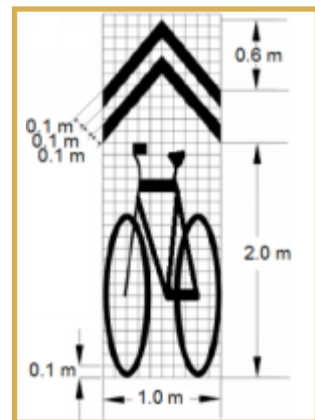


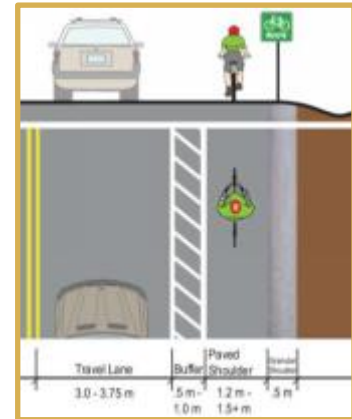
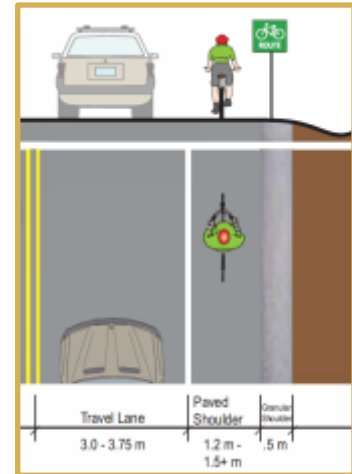
Figure 4.5- Sharrow
Credit: Based on TAC, 2012

Signed Cycling Routes with Paved Shoulders

DEFINITION: Signed Bike Routes with Paved Shoulders provide a convenient place for cyclists to ride, on a road with a rural road cross section (no curbs). A buffer made up of two edge lines with or without diagonal hatching or with a rumble strip in between can be used to provide cyclists riding on the paved shoulder with added separation.

Key Considerations:

- Provides a space for cyclists on rural road cross-sections (no curb and gutter);
- Where motor vehicle speeds or volumes are high, a wide shoulder and / or painted buffer enables more separation between the cyclists and the motor vehicle, and also reduces the impact of wind-shear on the cyclist;
- On high volume roadways e.g. Provincial Highways and Secondary Highways the preferred width of the paved shoulder is 1.5;
- The paved shoulder provides a convenient location for cyclists to travel;
- Rumble strips can be added to the painted buffer as an additional cue, provided that there are clearly marked breaks at regular intervals, allowing the cyclists to move in or out of the paved shoulder areas to overtake slower moving cyclists, safely pass stalled vehicles or to make a left turn; and
- 'Bike Route Marker' signs and supplementary 'Share the Road' signs may be used.



	Bicycle Route Marker	Share the Road sign	Supplementary Share the Road tab
Sign / Code	 IB-23	 WC-20	 WC-20S
Size	450 mm x 450 mm	600 mm x 600 mm	600 mm x 300 mm

Typical Applications:

- Typically implemented on rural cross-sections where motor vehicle traffic volume and speeds are higher.
- Buffered paved shoulders may be implemented where motor vehicle speeds and/ or volumes are high to increase separation between cyclists and passing motorists.

Benefits of Paved Shoulders...

- A reduction in the amount of maintenance costs associated with the grading of gravel shoulders;
- Can extend the service life of the road since heavy vehicles travel further away from the road edge; and
- Serve as a refuge for disabled vehicles.

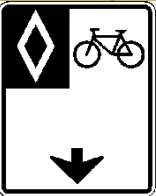
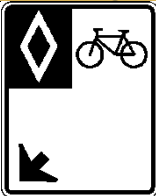

Recommendation	Signed Bike Routes with Paved Shoulders may form part of the Lake Huron North Channel Cycling Route along rural road cross sections and are the preferred facility type for connecting rural communities using rural road cross sections.
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Bicycle Lanes

DEFINITION: A Bicycle Lane is a portion of a roadway which has been designated by pavement markings and signage for preferential or exclusive use by one way cyclist traffic often along the right-most curb or edge of road.

Key Considerations:

- Motor vehicles are typically not permitted to park or stand in the bike lane, but right turning motor vehicles can enter the bike lane at intersections to complete their turn (enforced through municipal bylaw).
- Width of the bike lane (or adding a buffer zone) should be increased (to a maximum of 2.0 m) where motor vehicle traffic volumes, percentages of trucks and commercial vehicles and motor vehicle speeds are higher;
- Sufficient space should be provided to mitigate conflict between cyclists and open car doors on streets where on-street parking is permitted; and
- Consistency in the design and signing of bike lanes and other bikeway facilities is crucial to educate and inform cyclists and motorists on their proper use.

	Reserved Bicycle Lane sign	Reserved Bicycle Lane sign	Reserved Bicycle Lane Ends sign
Sign / Code	 RB-90	 RB-91	 RB-92
Size	600 mm x 750 mm	600 mm x 750 mm	600 mm x 750 mm



Typical Applications:

- Typically implemented on a cross-section road where motor vehicle traffic volume and speeds are higher than typical threshold values for shared space routes.
- Buffered bicycle lanes may be implemented where motor vehicle speeds and/ or volumes are high to increase separation between cyclists and passing motorists.

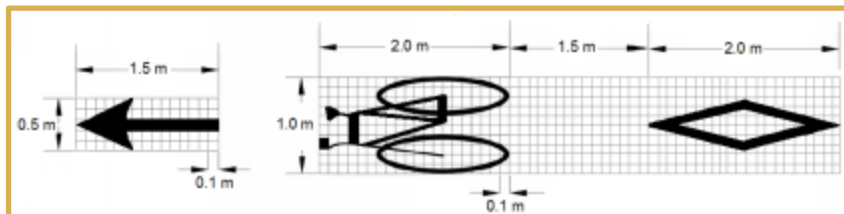


Figure 4.6 – Bicycle Lane Pavement Markings

Credit: Based on TAC, 2012

Recommendation	Bike lanes should be provided on urban arterial and major collector roads that are part of the route where traffic volume and speed are higher. Bike lanes should also be clearly identified on roadways with bicycle symbol pavement markings and 'Reserved Bicycle Lane' signs.
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4.4.2.3 Off-Road Cycling Facilities

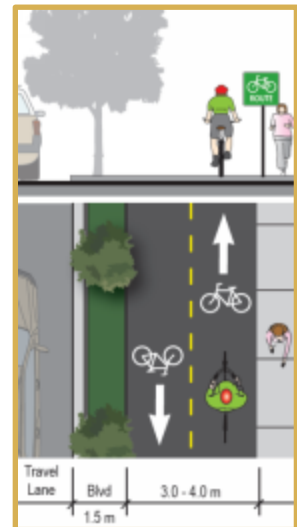
In-boulevard Cycling Facilities within the Road Right-of-way

DEFINITION: An In-boulevard Cycling Facility within the Road Right-of-Way is a bicycle path or a combined bicycle / pedestrian path physically separated from motor vehicle traffic by a strip of grass (often referred to as a “boulevard” or “verge”) within the roadway right-of-way. This facility type is typically designed for a wide range of non-motorized users including pedestrians, cyclists, in-line skaters and skateboarders and is sometimes referred to as an “Active Transportation Path”.

An In-boulevard Cycling Facility can typically take on two forms, one where the bicycle path is distinct from the sidewalk and the other where a single path is shared by cyclists and pedestrians.



Key Considerations:

- Surface may be compacted granular (e.g. Limestone Screening) or hard surface (e.g. Asphalt). A hard surface will accommodate a wider range of users.
- On two-way facilities, yellow centre line may be used on busier asphalt surface trails to help delineate travel lanes.
- Not a good facility choice where lot frontages are narrow and numerous intersections per kilometre.
- Separation or setback from the road is a very important consideration. Where separation cannot be achieved it requires one direction of cycling traffic to ride against motor vehicle traffic, contrary to normal rules of the road;
- When the path ends, cyclists going against traffic will tend to continue to travel on the wrong side of the street. Likewise, cyclists approaching a shared-use path often travel on the wrong side of the street in getting to the path. Wrong-way travel by cyclists is a major cause of cyclist / automobile collisions and should be discouraged at every opportunity;
- At intersections, motorists entering or crossing the roadway often may not notice cyclists approaching from their right;
- Signs posted for roadway users are backwards for contra-flow cycling traffic; therefore these cyclists are unable to read the information without stopping and turning around;
- When the available right-of-way is too narrow to accommodate all roadway and shared-use path features, it may be prudent to consider a reduction of the existing or proposed widths of the various road (and path) cross-sectional elements such as travel lane and shoulder widths, for example. However, any reduction to less than MTO, TAC, AASHTO or municipal approved design criteria should be supported by a documented engineering analysis;
- Some cyclists may continue to use the roadway even if an active transportation path is provided which may lead to conflicts with motorists who feel all cyclists should be on the path provided;
- Although shared-use active transportation path users should be given the same priority



through intersections as the parallel roadway users, motorists falsely expect cyclists to stop or yield at all cross-streets and driveways. Efforts to require or encourage cyclists to stop or yield at each cross street and driveway, as required under the Highway Traffic Act, are frequently ignored by cyclists; and

- Stopped cross-street motor vehicle traffic exiting side streets or driveways may block the path crossing.

	Bicycle Route Marker	Shared Pathway sign
Sign / Code	 IB-23	 RB-93
Size	450 mm x 450 mm	300 mm x 600 mm



Typical Applications:

- The application of In-boulevard Cycling Facilities immediately adjacent to a roadway, especially as a cycling facility, should only be considered for cycling when an on-road facility is not feasible or when a municipality seeks to provide a primarily recreational path for pedestrians and cyclists and cannot or chooses not to provide a parallel on-road facility for cycling. This is an appropriate facility choice in areas where there is high cycling demand and a large proportion of the users are youth or seniors with a low to moderate level of experience and where there are few intersections / conflict points per kilometre.

Recommendation	In-boulevard Cycling Facilities should be considered in areas where there is high cycling demand and a large proportion of the users are recreational users with a low to moderate level of experience and where there are few intersections / conflict points per kilometre.
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Multi-use Trails outside of the Road Right-of-Way

DEFINITION: Off-Road Multi-Use Trails are shared facilities located outside the road right-of-way for use by cyclists and other non-motorized users. If permitted, multi-use trails may also be used by recreational motorized vehicles.

Key Considerations:

- Generally used to provide a recreational opportunity and may also be appropriate in providing a direct cycling commuter route in corridors not served directly by on-road facilities.
- Surface may be compacted granular (e.g. limestone screening) or hard surface (e.g. asphalt).
- Surface may vary, may be granular in rural areas and asphalt in urban areas to accommodate a wider range of users.
- Local Municipal multi-use trails that connect to the Lake Huron North Channel Bike Route may be narrower to respond to local Municipal guidelines. Surface types may also include a wider range of materials (e.g. may include earth surface on local connector trails).
- Designers must consider the specific users when determining the operating and design characteristics of the off-road facility.
- Signage and / or painted centrelines can be utilized to identify separate lanes for opposing directions of travel and encourage the practice of keeping to the right side of the trail.



Shared Pathway sign	
Sign / Code	 <p>RB-93</p>
Size	300 mm x 600 mm



Typical Applications:

- Typically located outside the road right-of-way through a park, public open space corridor, along a utility corridor or other linear facilities such as within an abandoned railway corridor.

Recommendation	Off-Road Multi-use Trails provide for the widest range of user ability and should be considered as an integral part of the Lake Huron North Channel Cycling Route. Multi-use Trails also provide connections to other local/secondary trails.
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4.4.3 Additional Cycling Route Amenities

4.4.3.1 Bicycle Parking

Bicycle Parking can include a variety of bicycle rack types and lockers from the simple post and ring style racks for 2 bicycles to larger and more elaborate systems for large numbers of bicycles at destinations where demand and use are high. The provision of bicycle parking facilities is essential for encouraging more bicycle use. The lack of adequate bicycle parking supply or type can deter many from considering using their bicycle as a basic mode of transportation.

Bicycle Racks:

Bicycle racks are made up of the following four main components:

- The bicycle rack element – the portion of a bike rack that supports the bicycle;
- The bicycle rack – a grouping of rack elements;
- The bicycle rack area – the “bicycle parking lot”; and
- The bicycle rack area site – the location of the bicycle rack area.

These four components are described in greater detail in the following sections.

The Bicycle Rack Element:

- Bicycle rack elements can be joined on any common base or arranged in a regular array and fastened to a common mounting surface. They should:
 - Support the bicycle upright by its frame in two places;
 - Prevent the wheel of the bicycle from tipping over;
 - Enable the frame and one or both wheels to be secured;
 - Support bicycles without a diamond-shaped frame with a horizontal top tube;
 - Allow front-in parking: a U-lock should be able to lock the front wheel and the down tube of an upright bicycle;
 - Allow back-in parking: a U-lock should be able to lock the rear wheel and seat tube of the bicycle; and
 - Be designed to resist being cut or detached by common hand tools such as bolt and pipe cutters, wrenches and pry bars which can easily be concealed in backpacks.

The Bicycle Rack:

- Bicycle racks may be used to accommodate a varying number of bicycles securely in a particular location. They consist of a grouping of the rack elements either by attaching them to a single frame or allowing them to remain as single elements mounted in close proximity to one another.
- Various types of available bicycle rack designs include the “Ribbon” rack, the “Ring” rack, the “Ring and Post” rack and the “Swerve” rack. Designs should:
 - Whether as single units or grouped together, be securely fastened to a mounting surface to prevent the theft of a bicycle attached to a rack;
 - Be mounted so that it cannot be easily lifted or moved from its position with bicycles attached;

- Bicycle racks should not only allow for a secure lock between the bicycle and the rack, but should also provide support for the bicycle frame itself;
- Be easily and independently accessed by the user;
- Arranged to allow enough room for two bicycles to be secured to each rack element;
- Be arranged in a way that is quick, easy and convenient for a cyclist to lock and unlock their bicycle to and from the rack.

The Bicycle Rack Area:

- The bicycle rack area is the “bicycle parking lot” or area where more than one bicycle rack is installed. Bicycle racks are separated by aisles, much like a typical motor vehicle parking lot.
 - The recommended minimum width between aisles should be 1.2 m to provide enough space for one person to walk with one bicycle.
 - Aisle widths of 1.8 m are recommended in high traffic areas where many users may retrieve their bicycle at the same time, such as after a school class.
 - A 1.8 m depth should be provided for each row of parked bicycles since conventional bicycles are just less than 1.8 m long and can be accommodated in that space.
 - Large bicycle rack areas with a high turnover rate of arriving and departing cyclists should have more than one entrance to help facilitate user flow.
 - If possible, the rack area should be sheltered to protect the bicycles from the elements by placing awnings and overhangs above the rack area.
- Bicycle racks should be placed as close as possible to the entrance that it serves, but not in a location where they would inhibit pedestrian flow in and out of the building.
- Where possible rack areas should be no more than 15 m from an entrance, and should be clearly visible along a major building approach line.
- Bicycle rack areas that are hard to find or that are located far from a building entrance are generally perceived as vulnerable to vandalism and will generally not be used by cyclists. To encourage use of a bicycle rack by cyclists, the rack site should be clearly visible and well lit.
- Multiple buildings in an area should not be served by one bike rack. Rather, smaller bike racks should be placed in convenient locations at each building, but not in a manner that would obstruct

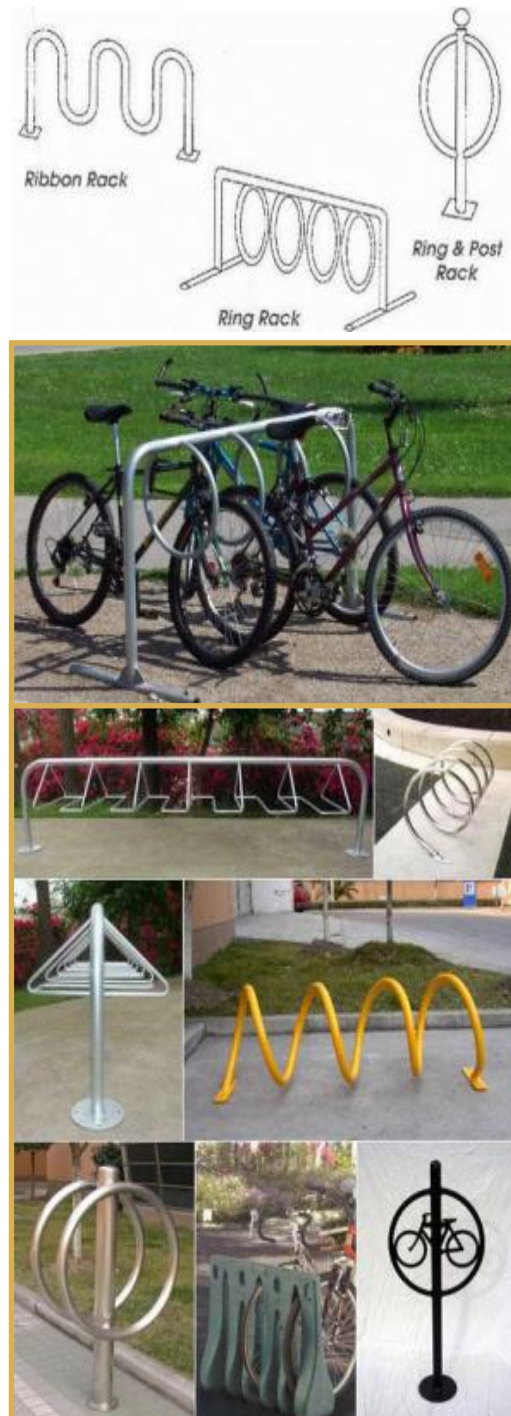


Figure 4.7 - Examples of Bicycle Rack Elements and Bicycle Racks

Credit: www.core77.com

utility access openings, garbage disposal bins, doorways or other building access points.

- To avoid excessive bicycle riding on the grass, bicycle racks should only be placed on grass surfaces located within close proximity to a paved cycling route, such as on off-road multi-use trail, or an on-road route. Bicycle racks on grass surfaces should be considered temporary, and every effort should be made to relocate them to a permanent, hard surface area or a concrete pad can be paved in an approved area to accommodate bicycle parking.

Location for the Bicycle Rack Area:

- Bicycle racks should not be placed within the following areas:
 - Bus loading areas;
 - Goods delivery zones;
 - Taxi zones;
 - Emergency vehicle zones;
 - Hotel loading zones;
 - Within 4.0 m of a fire hydrant;
 - Within 2.5 m of a driveway or access lane; and
 - Within 10.0 m of an intersection.



Figure 4.8 - Example of Bicycle Rack Area

Credit: www.cvclesafe.com

4.4.3.2 Signage for the Route

The design and construction of the route should incorporate a hierarchy of signs each with a different purpose and message. This hierarchy is organized into a “family” of signs with unifying design and graphic elements, materials and construction techniques. The unified system becomes immediately recognizable by the user and can become a branding element. Consistent with this approach is the correct use of signage, which in-turn reinforces the trail’s identity. Generally the family of signs includes:

- Orientation and Trailhead Signs;
- Regulatory Signs;
- Interpretive Signs; and
- Route Marker and Trail-Directional Signs

Orientation and trailhead signs: are typically located at key destination points and major route junctions. They provide orientation to the route through mapping, other appropriate route information as well as any rules and regulations. Where route nodes are visible from a distance, these can be a useful landmark. In some municipalities, orientation signing has also been used as an opportunity to sell advertising space. This not only provides information about local services that may be of interest to trail users, but it may also help to offset the cost of signs and/or pathway.



Figure 4.9 - Trailhead Sign Examples
 Ottawa, ON (Left); Kissing Bride Trail, Guelph/Eramosa (Right)
 Credit: MMM Group

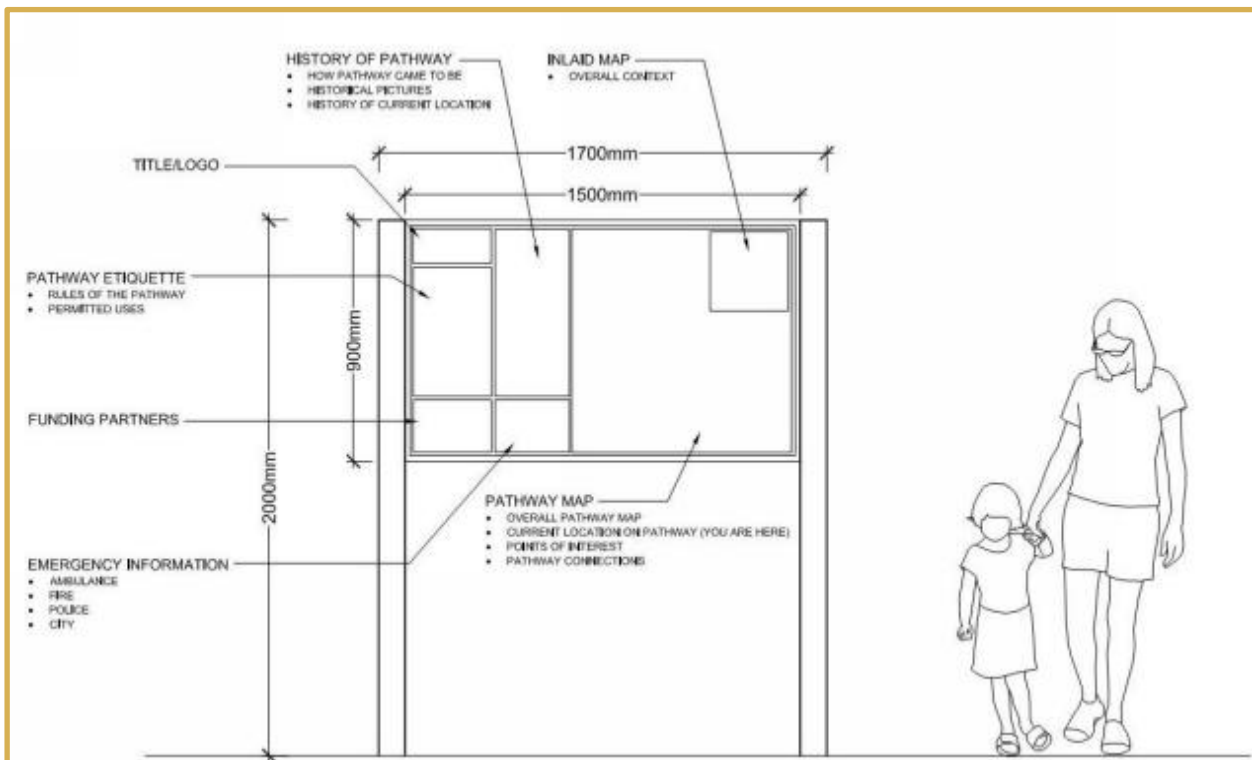


Figure 4.10 - Trailhead Sign with Typical Information Features

Gateway signs should be employed where key cycling and trail facilities begin. The gateway sign is a smaller version of the trailhead sign and includes elements such as route mapping, branding/logos, and user etiquette and emergency contact information.

“User Etiquette” signs, which should be posted at public access points to clearly articulate which trail uses are permitted, regulations and laws that apply, as well as trail etiquette, safety and emergency contact information. At trailheads, this information can be incorporated into trailhead signs. In other areas, this information can be integrated with access barriers.

Regulatory signs: are required throughout the system. Where traffic control signs are needed (stop, yield, curve ahead etc.), it is recommended that recognizable traffic control signs be used (refer to the Ministry of Transportation for Ontario’s (MTO) Manual of Uniform Traffic Control Devices, 1996). Regulatory signs are intended to control particular aspects of travel and use along the road or off-road route. Signs restricting or requiring specific behaviour is not legally enforceable unless it is associated with a provincial law or municipal by-law. Where applicable, it is recommended that authorities discreetly include the by-law number on signs to reinforce their regulatory function. Warning signs are used to highlight bicycle route conditions that may pose a potential safety or convenience concern to route users. Examples are steep slopes, share the road, railway crossings and pavement changes. These signs are diamond in shape, with a black legend on a yellow background. These signs are more applicable to cycling routes and multi-use trails than pedestrian systems.

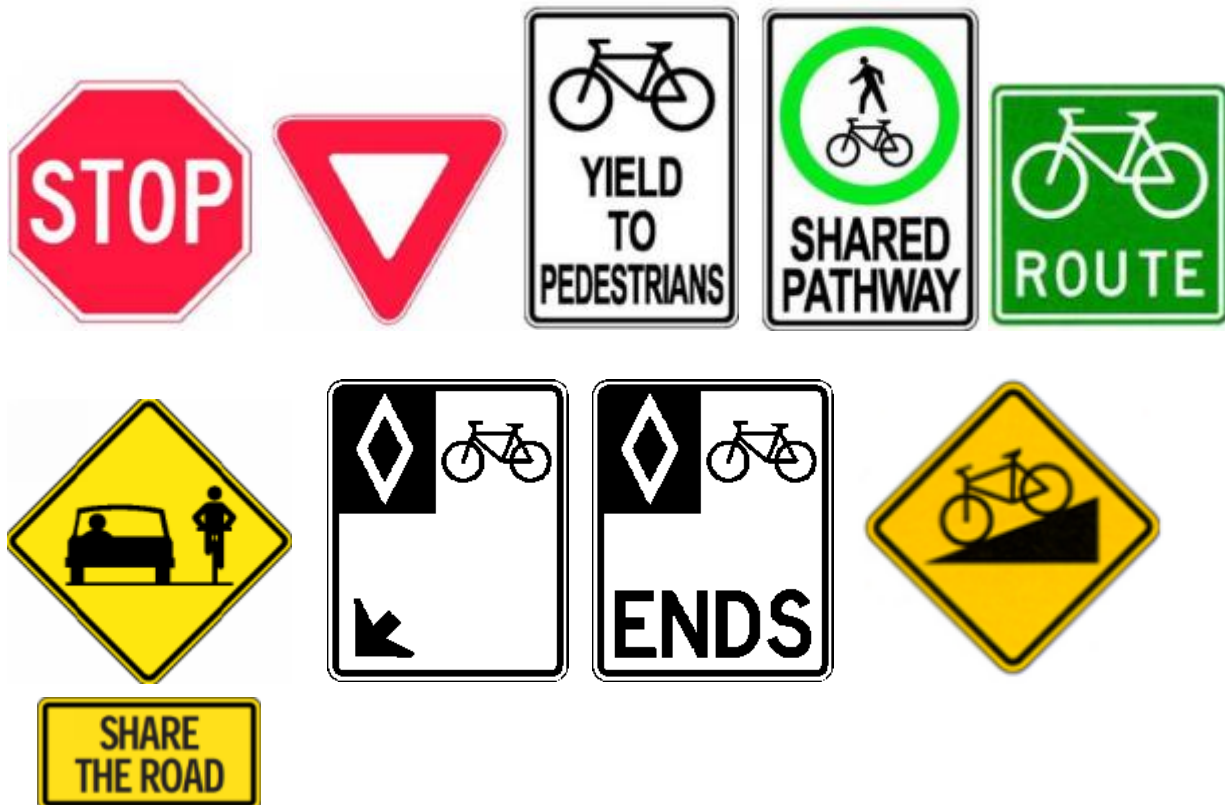


Figure 4.11 – Typical Regulatory Sign Examples

Credit: TAC Bikeway Traffic Control Guidelines, 2012

Interpretive signs: should be located at key trail features having a story to be told. These features may be cultural, historical, or natural. Interpretive signs should be highly graphic and easy to read. They should be located carefully in highly visible locations to minimize the potential for vandalism.



Figure 4.12 - Interpretive Sign Examples: Erin (Left); Tobermory (Middle); Sauble Beach (Right)
Credit: MMM Group

Route marker and trail-directional signs: should be located at key route intersections and at regular intervals along long, uninterrupted sections. The purpose of route marker signs is to provide a simple visual message to users that they are travelling on the pathway route. These wayfinding signs may include the route logo or “brand” and communicate other information to users such as directional arrows and distances in kilometres to major attractions and settlement areas. They should be mounted on standard sign poles and be located on all legs of an intersection or off-road trail junction, as well as at gateways.

Figure 4.13 - Interpretive Sign Examples Essex Trail, Guelph / Eramosa (Second from left); Halton Hills (Third from Left); Confederation Trail (Right)

Credit: Essex Region Conservation Authority and MMM Group



Recommendation	Tourism Sault Ste. Marie and local partners should develop a route branding and signage strategy using the sign types outlined in the Lake Huron North Channel Cycling Route Study as a guide.
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4.5 The Recommended Cycling Route

Maps 4-1 through 4-7 illustrate the recommended Lake Huron North Channel Cycling Route. The maps include the recommended route (red), several alternate routes (yellow) and links to key destinations and points of interest nearby the recommended route (purple). Wherever possible and practical the recommended route follows local low-volume roads and local trails that connect towns, hamlets and key points of interest between Sudbury and Sault Ste. Marie. However, there are several sections of Highway 17 that are part of the recommended route, where there are no alternative routes available or where following Highway 17 better satisfies the route selection criteria than the alternative route(s) identified.

The westerly terminus of the Lake Huron North Channel Cycling Route is at the Roberta Bondar Pavilion on the in Sault Ste. Marie waterfront and the eastern terminus is at Science North on Ramsey Lake in Sudbury. Linking west towards Thunder Bay, south to Sault Ste. Marie Michigan and Manitoulin Island, and east towards North Bay are logical future connections that could be explored as part of a broader cycling route network.

A few points of interest along the recommended Lake Huron North Channel Cycling Route include:

- Gros Cap;
- The waterfront, John Rowswell Hub Trail, Bush Plane Museum and Hiawatha Highlands Conservation Area in Sault Ste. Marie;
- The Iron Bridge Museum;
- The Blind River waterfront;
- The Massey Area Museum;
- Numerous spectacular views of the Mississagi River, Spanish River, North Channel and the La Cloche Mountains;
- The Lee Valley area; and
- Science North, Ramsey Lake in Greater Sudbury.

In addition to the recommended primary route a number of links to nearby destinations include:

- St. Joseph Island;
- The towns of Bruce Mines and Thessalon;
- Manitoulin Island;
- Chute Provincial Park and Fairbanks Provincial Park; and
- Downtown Greater Sudbury.

Appendix C provides a detailed list of individual segments that comprise the primary route along with recommendations for each regarding bicycle facility improvements.

Appendix D provides a series of maps that illustrate the proposed route by facility type and identifies segments where road improvements (in addition to route signing) are proposed.

Lake Huron - North Channel Cycling Route Map 4-1



Legend

Lake Huron North Channel Cycling Route

- Lake Huron - North Channel Cycling Route (Primary)
- Alternate Route (Secondary)
- Tourism Link (Connections to Other Key Tourist Destinations)

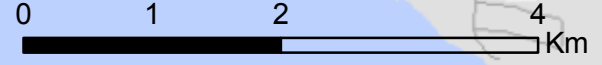
Other

- Distance Intervals from Sault Ste. Marie to Sudbury (10 KM) (See Maps 4-4 to 4-7)
- Hub Trail
- Bike Shop
- Campground
- Highway
- Major Road
- Provincial and National Parks
- Lakes and Rivers
- Municipal Boundary
- International Boundary

Lake Huron North Channel Cycling Route created in GIS by MMM Group.



Lake Huron - North Channel Cycling Route Map 4-2 Gros Cap to Sault Ste. Marie



Legend

Lake Huron North Channel Cycling Route

- Lake Huron - North Channel Cycling Route (Primary)
- Alternate Route (Secondary)
- Tourism Link (Connections to Other Key Toursit Destinations)

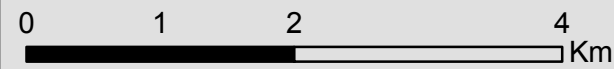
Other

- Distance Intervals from Sault Ste. Marie to Sudbury (10 KM) (See Maps 4-4 to 4-7)
- Hub Trail
- 🚲 Bike Shop
- 🏕️ Campground
- Highway
- Major Road
- Local Street
- ▭ International Boundary
- 🌊 Lakes and Rivers
- ▭ Municipal Boundary
- 🌳 Provincial and National Parks

Lake Huron North Channel Cycling Route created in GIS by MMM Group.

Lake Huron - North Channel Cycling Route Map 4-3

Sault Ste. Marie to Hiwatha
Highlands Rd



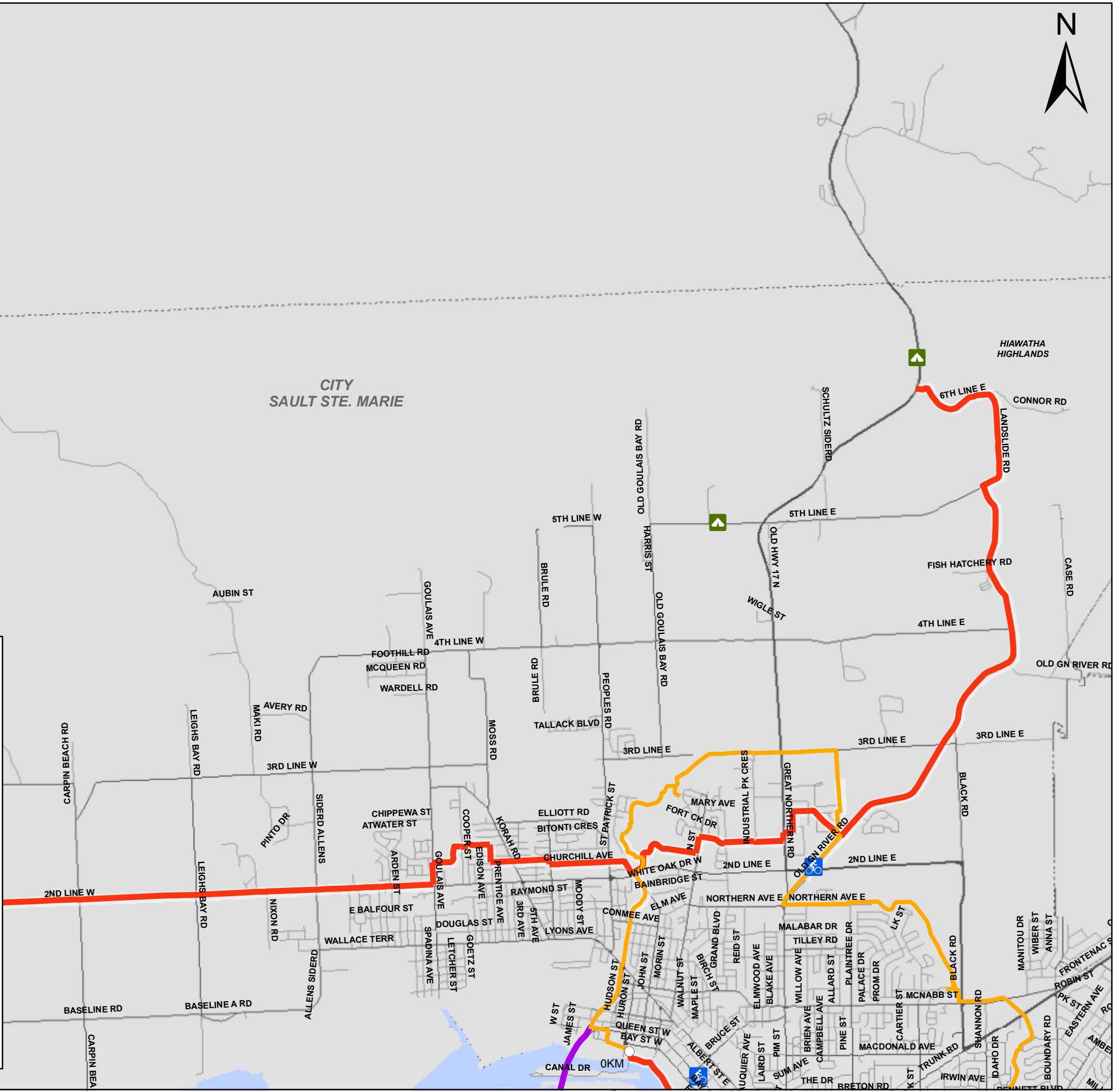
Legend

Lake Huron North Channel Cycling Route

- Lake Huron - North Channel Cycling Route (Primary)
- Alternate Route (Secondary)
- Tourism Link (Connections to Other Key Toursit Destinations)

Other

- Distance Intervals from Sault Ste. Marie to Sudbury (10 KM) (See Maps 4-4 to 4-7)
- Hub Trail
- Bike Shop
- Campground
- Highway
- Major Road
- Local Street
- Lakes and Rivers
- Municipal Boundary
- Provincial and National Parks
- International Boundary



Lake Huron - North Channel Cycling Route Map 4-4

Sault Ste. Marie to Huron Shores



Legend

Lake Huron North Channel Cycling Route

- Lake Huron - North Channel Cycling Route (Primary)
- Alternate Route (Secondary)
- Tourism Link (Connections to Other Key Toursit Destinations)

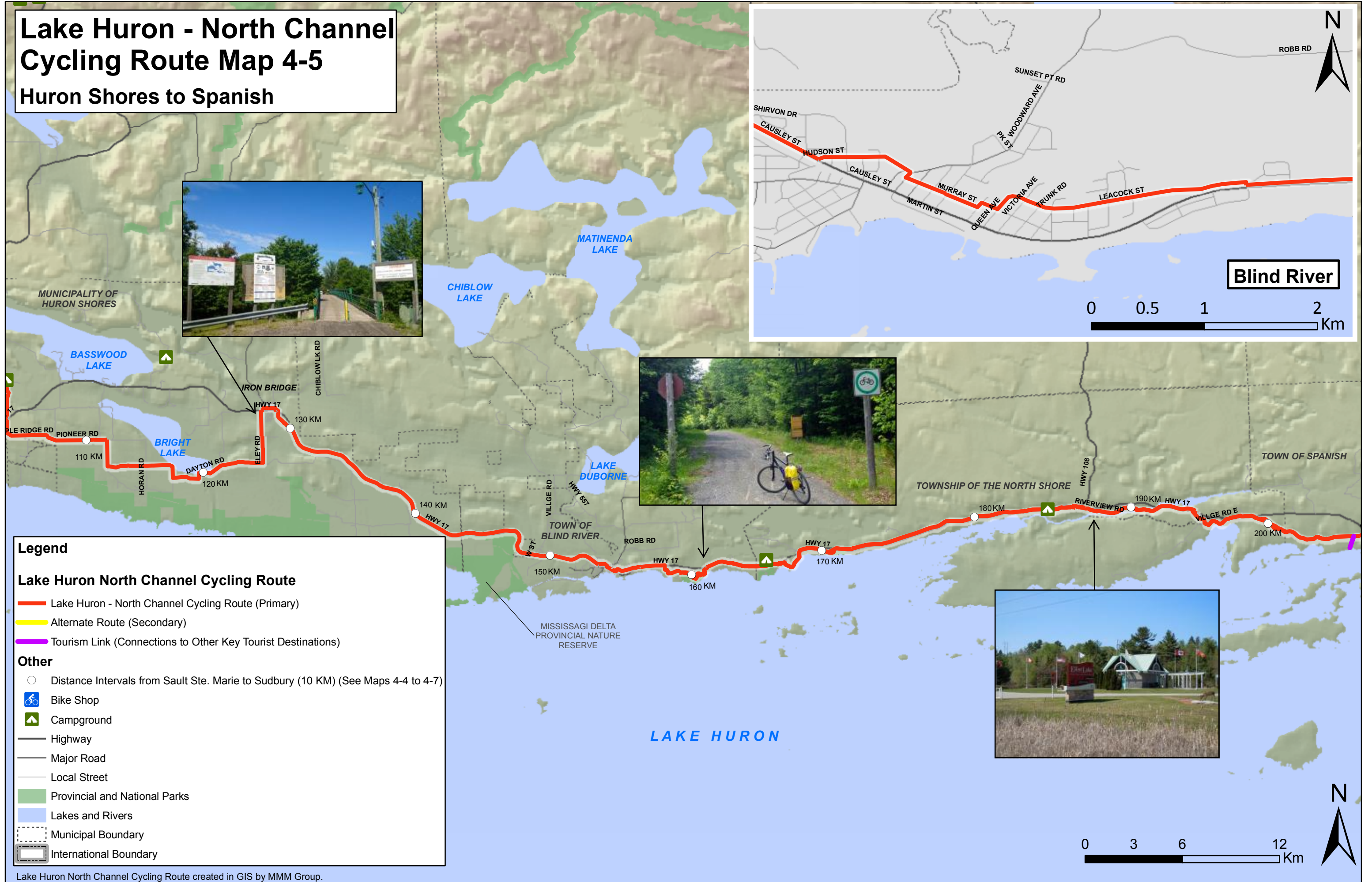
Other

- Distance Intervals from Sault Ste. Marie to Sudbury (10 KM) (See Maps 4-4 to 4-7)
- Hub Trail
- 🚲 Bike Shop
- 🏕️ Campground
- Highway
- Major Road
- Local Street
- 🌲 Provincial and National Parks
- 🌊 Lakes and Rivers
- - - Municipal Boundary
- ▭ International Boundary

Lake Huron North Channel Cycling Route created in GIS by MMM Group.

Lake Huron - North Channel Cycling Route Map 4-5

Huron Shores to Spanish



Legend

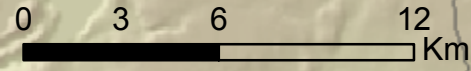
Lake Huron North Channel Cycling Route

- Lake Huron - North Channel Cycling Route (Primary)
- Alternate Route (Secondary)
- Tourism Link (Connections to Other Key Tourist Destinations)

Other

- Distance Intervals from Sault Ste. Marie to Sudbury (10 KM) (See Maps 4-4 to 4-7)
- Bike Shop
- Campground
- Highway
- Major Road
- Local Street
- Provincial and National Parks
- Lakes and Rivers
- Municipal Boundary
- International Boundary

Lake Huron - North Channel Cycling Route Map 4-6 Sables-Spanish Rivers to Greater Sudbury



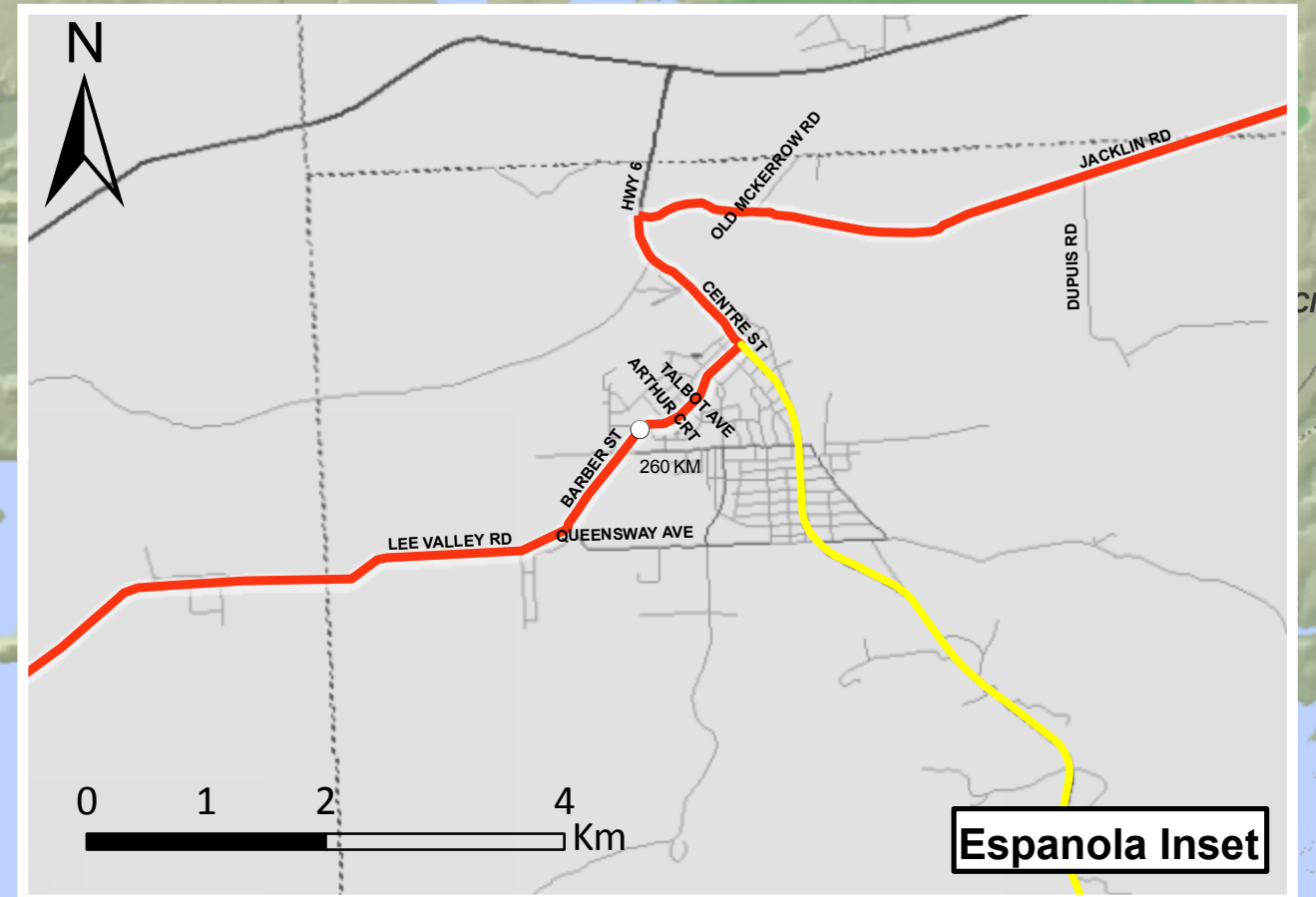
Legend

Lake Huron North Channel Cycling Route

- Preliminary Lake Huron - North Channel Cycling Route (Primary)
- Alternate Route (Secondary)
- Tourism Link (Connections to Other Key Tourist Destinations)

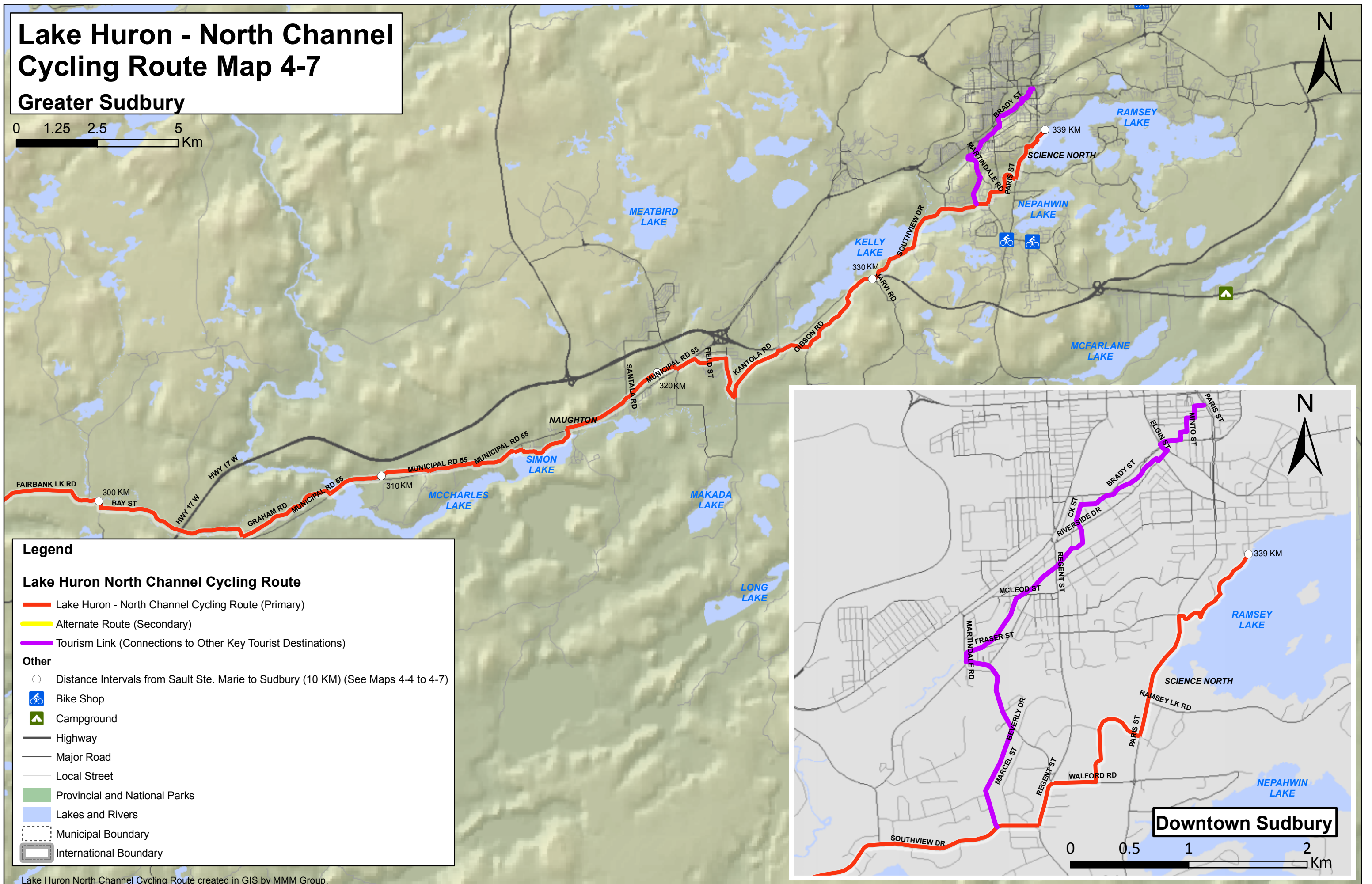
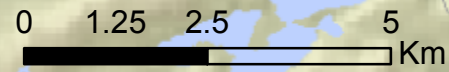
Other

- Distance Intervals from Sault Ste. Marie to Sudbury (10 KM) (See Maps 4-4 to 4-7)
- Bike Shop
- Campground
- Highway
- Major Road
- Local Street
- Provincial and National Parks
- Lakes and Rivers
- Municipal Boundary
- International Boundary



Lake Huron - North Channel Cycling Route Map 4-7

Greater Sudbury



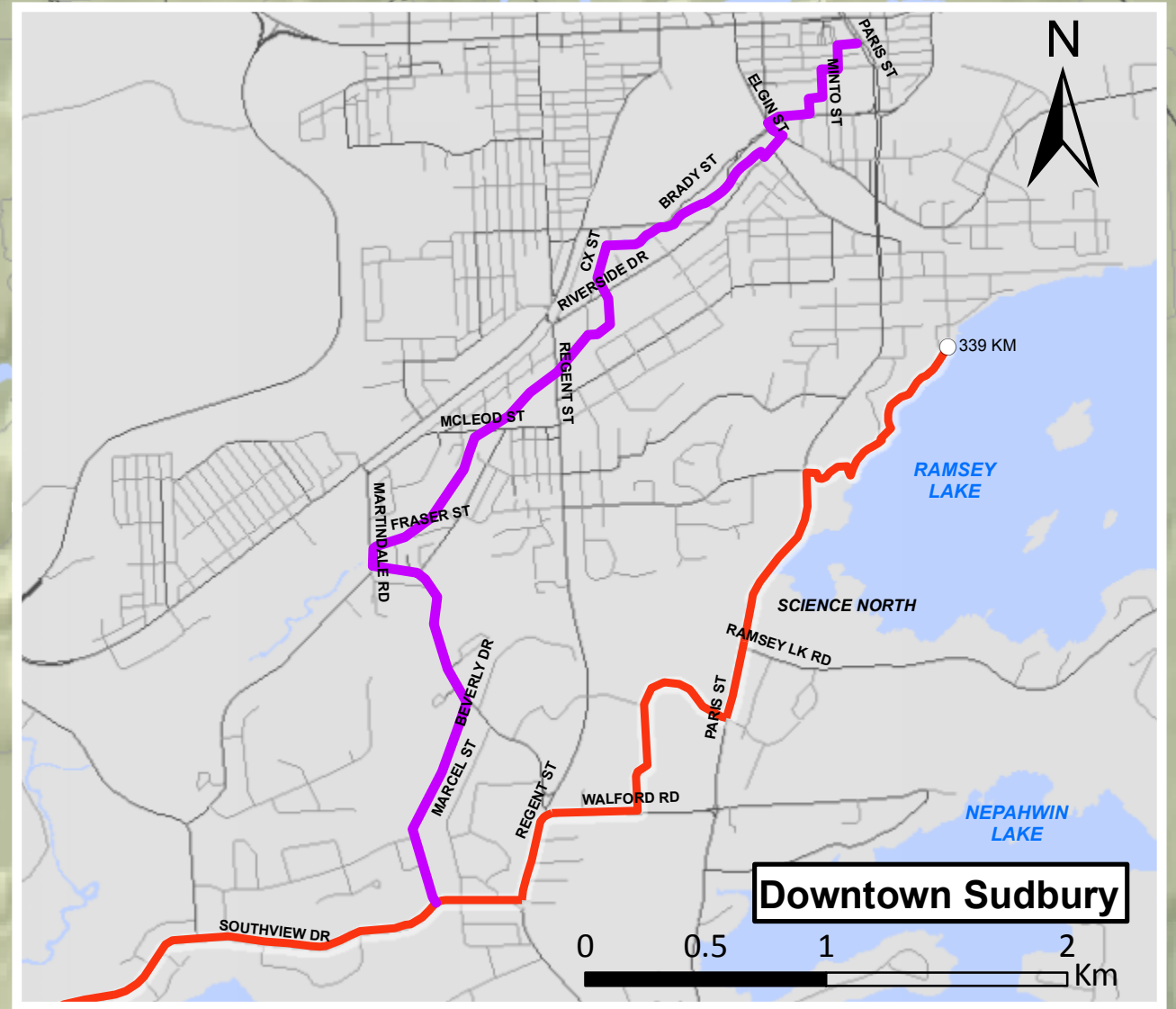
Legend

Lake Huron North Channel Cycling Route

- Lake Huron - North Channel Cycling Route (Primary)
- Alternate Route (Secondary)
- Tourism Link (Connections to Other Key Tourist Destinations)

Other

- Distance Intervals from Sault Ste. Marie to Sudbury (10 KM) (See Maps 4-4 to 4-7)
- Bike Shop
- Campground
- Highway
- Major Road
- Local Street
- Provincial and National Parks
- Lakes and Rivers
- Municipal Boundary
- International Boundary



Lake Huron North Channel Cycling Route created in GIS by MMM Group.



5.0 THE IMPLEMENTATION STRATEGY

5.1 How to Implement the Plan

A two-phase implementation plan to transition from the completion of this feasibility study to full operation of the Lake Huron North Channel (LHNC) Cycling Route is recommended. The objectives of the first phase are:

- To formally secure the necessary support of key stakeholders for the Cycling Route and its implementation; and
- To establish an organization that will be responsible for coordinating the capital development, marketing and ongoing maintenance of the Cycling Route.

The objectives of the second phase are:

- To prepare capital development and marketing plans based on the recommendations in this report;
- To coordinate the implementation of the capital development and marketing plans;
- To coordinate the ongoing maintenance and upkeep of the Cycling Route; and
- To monitor and report on the use and related regional economic benefits generated from development and operation of the Cycling Route

5.1.1 Phase 1: Support & Organization

It is anticipated that the Phase 1 Tasks will require from 1-3 years to complete, and will require approximately \$25,000 annually in funding plus in-kind administrative support services. It is recommended that funding to support Phase 1 activities be solicited from RTO13, with in-kind administrative support provided collectively by the staff of Tourism Sault Ste. Marie, Algoma Country, Rainbow Country and the City of Greater Sudbury.

Task 1: Establish Temporary Working Group

A temporary Working Group with representation from key stakeholders located along the Cycling Route is recommended to manage the transition from the completion of this Study to the establishment of a more permanent organization to coordinate capital development, marketing and ongoing maintenance of the Route. It is recommended that Working Group membership should include, but not necessarily be limited to the following:

- Two (2) Anchor City representatives including representatives from the planning or recreational staff;
- Two (2) Anchor City representatives including tourism staff;
- Two (2) representative from RTO13, more specifically sub-regions 13A and 13B;

- Three (3) representatives from local smaller communities including the CFDCs;
- Two (2) representatives from first nations communities; and
- Two (2) representatives from local interest groups which could include Cycling Clubs.

Given the recommended size of the Working Group, it is recommended that an Executive Committee of three (3) representatives – one (1) regional tourism industry development and marketing representative, one (1) municipal representative, and one (1) First Nation community representative – be formed to direct and lead the Working Group activities.

The Working Group would be responsible for undertaking Tasks 2, 3 and 4, as soon as possible.

As attempts to engage representatives of regional First Nation communities in consultation during this study have been mostly unsuccessful, it is recommended that initially the Working Group be established with representation from the regional tourism industry (4) and municipalities (6) as described above, for the purpose of engaging in consultation with the First Nation communities. The objective of the consultations would be to secure First Nation representation on the Working Group.

Task 2: Public Validation

Once the full Working Group is established, including membership from First Nations communities, it is recommended that consultations with the general public be undertaken in several municipalities along the route. The purpose of the consultations would be to validate the Cycling Route concept including recommended routing and the proposed implementation plan, identifying beneficial changes and/or revisions.

Task 3: Memorandums of Agreement

The roads, streets and cycle / multi-use paths that comprise most of the recommended Cycling Route are owned and maintained by municipalities and First Nations communities. The formal endorsement and financial support of both is required for the Route to be developed and maintained. The experience of other long distance regional cycle routes, particularly the Waterfront Trail in Ontario, is that a formal commitment from each of the municipalities and First Nation communities in the form of a Memorandum of Agreement (MOA) is an essential foundation for a successful cycling route.

It is recommended that the MOA with each municipality:

- Describe the vision, purpose and objectives of the proposed Cycling Route, as well as the regional economic benefits that are expected to accrue from its development and operation;
- Describe and illustrate the overall proposed routing as well as the detailed routing through the particular municipality named in the MOA;
- Identify the estimated capital costs for recommended upgrades in the particular municipality named in the MOA and commit the municipality, in principle, to undertaking the recommended upgrades in a timely fashion as municipal budgets allow; and
- Commit each municipality, in principle, to contributing funds to support the operation of the Route coordinating organization to be established in Phase 2. The MOA would allow for the amount of contribution to be negotiated

at a later date once the expected operating costs for the organization and other sources of revenue/funding have been identified.

It is recommended that the MOA with each First Nation community that is hosting a section of the Route:

- Describe the vision, purpose and objectives of the proposed Cycling Route, as well as the regional economic benefits that are expected to accrue from its development and operation;
- Describe and illustrate the overall proposed routing as well as the detailed routing through the particular First Nation community named in the MOA;
- Commit each First Nation community to allowing and endorsing the use of the specific roads and streets in their community that are part of the recommended route;
- Identify the estimated capital costs for recommended upgrades in the particular First Nation named in the MOA and commit the First Nation, in principle, to undertaking the recommended upgrades in a timely fashion as community budgets allow; and
- Commit each First Nation, in principle, to contributing funds to support the operation of the Route coordinating organization to be established in Phase 2. The MOA would allow for the amount of contribution to be negotiated at a later date once the expected operating costs for the organization and other sources of revenue/funding have been identified.

In addition, an MOA with the province of Ontario through the Ministry of Transportation (MTO) is also recommended given that some, albeit limited, sections of provincial Highways 17 (also Trans-Canada Highway) and 6 are part of the recommended Cycling Route. It is recommended that the MOA with MTO:

- Describe the vision, purpose and objectives of the proposed Cycling Route, as well as the regional economic benefits that are expected to accrue from its development and operation;
- Describe and illustrate the overall proposed routing as well as the detailed routing on provincial Highways 17 and 6; and
- Identify the estimated capital costs for recommended upgrades on Highways 17 and 6 and commit MTO, in principle, to undertaking the recommended upgrades in a timely fashion as provincial budgets allow.

Task 4: Establish Coordinating Agency

When the MOA's with the municipalities, First Nation communities and MTO are in place, it is recommended that the Working Group prepare a proposal to the province to seek start-up funding as a regional bicycle route Coordinating Agency (CA), similar in purpose and organization to the Waterfront Regeneration Trust. This is how the Waterfront Regeneration Trust was initiated. Currently it is a self-funded, not-for-profit corporation.

The proposal should seek a five year commitment for administrative operating funds (not capital development or marketing funds) to supplement funds committed by the municipalities and First Nation communities (see Task 3, above), and outline how the organization plans to transition to a not-for-profit corporation at the end of five years.

In the event that the Province does not accept such a proposal, the Working Group should consider approaching the Waterfront Regeneration Trust or a similar organization to take on responsibility for coordinating the implementation of the Lake Huron North Channel Cycling Route. The Waterfront Regeneration Trust recently assisted municipalities along Lake Erie in this way to launch the Lake Erie Waterfront Trail. Certainly a case can be made for the Lake Huron North Channel Cycling Route to become part of an expanded Waterfront Trail along the Ontario shores of all of the Great Lakes.

5.1.2 Phase 2: Route Development, Maintenance and Marketing

Task 1: Prepare Capital Development and Marketing Plans

As the first task in Phase 2, it is recommended that capital development and marketing plans for the Cycling Route be developed by the CA based on the recommendations in this study regarding bicycle facility improvements (Section 4.5) and marketing strategy (Section 5.2).

It is recommended that the Capital Development Plan commence in year 2 or 3 and that its estimated cost of \$75,000 be funded by some or all of the partners identified in Phase 1, ideally with support from the Provincial and Federal Governments. The capital development plan should include, but not necessarily be limited to:

- Identifying priorities for bicycle facility development and improvements along the entire route using the criteria listed below and other criteria identified through discussions with the Working Group during Phase 1 of the implementation
- Developing the route signing strategy which includes preparing design templates for the various sign types, developing the logo/brand for the Route and preparing guidelines for sign installation (e.g. sign location and placement, spacing between signs, installation etc.) so that a common approach to signing can be delivered along the entire route
- Preparing more detailed design and capital costs estimates for the highest priority projects
- Identifying primary funding sources and potential outside partnership opportunities for the highest priority projects (e.g. provincial and federal funding and grant programs, private sector corporate partners and local service club partners etc.)

The following criteria may help planning and design teams establish priorities for the route implementation of the Lake Huron North Channel Cycling Route:

- Regularly review capital works schedules in all municipalities through which the route passes and schedule the implementation of enhancements required for the Lake Huron North Channel Cycling Route as part of major infrastructure improvement projects to maximize cost efficiencies. Typical projects include road resurfacing and widening, upgrading secondary roads from gravel surfacing to hard surfacing (e.g. tar and chip or asphalt), intersection improvements and signalizations, bridge repairs and replacements, improvements to railway track crossings etc.);
- Consider coordinating infrastructure improvements between municipalities. For example this might include coordination of the timing for road resurfacing on both sides of a municipal boundary, resulting in a long section of completed/improved network;

- Establish sections of the route where a local group(s) or partnership has committed to assisting with development and/or operation and maintenance. This could include a financial commitment or an in-kind commitment;
- Focus on closing short gaps in the route, especially where the closure of a short gap results in a long section of the completed route;
- Implement signage along continuous sections of the route where no other major infrastructure improvements are required and the completed section provides a connection between significant points of interest along the route (e.g. between two urban centres, between an urban centre and a major staging area, rest area or tourist destination);
- Prioritize implementation where current demand is higher and/or where demand is anticipated to be the highest. For example it may be prudent to focus first on route improvements around population centres and major tourist destinations so that these benefit local residents and also add value to major tourist destinations. This may also help to encourage more people to try cycling for recreation;
- Focus on segments that are part of, or provide connections to regional and national trails/routes; and
- Consult with the Ministry of Transportation to help establish priority for paved shoulders on those sections of Highway 17 that are critical to the continuity of the Lake Huron North Channel Cycling Route (e.g. where no alternative routes exist).

The proposed Capital Development Plan will build upon this master plan study. It will confirm priorities and set out a funding strategy and identify the partnerships necessary to make the North Huron Channel Cycling Route a reality. It is recommended that the Capital Development Plan commence in year 2 or 3 and that its estimated cost of \$75,000 be funded by some or all of the partners identified in Phase 1, ideally with support from the Provincial and Federal Governments.

The marketing plan should be developed for a three (3) year period, and should include but not necessarily be limited to the activities described in Section 5.2. The plan should be updated annually. It is anticipated that funding for implementation of marketing plan will be provided collectively through contributions from a number of sources, including:

- RTO13;
- Tourism Sault Ste. Marie, Algoma Country, Rainbow Country, and City of Greater Sudbury; and
- Tourism businesses that participate in marketing campaigns/activities on a fee for service basis.

It is recommended that the annual marketing budget allocated to third party expenditures for each of the first two years should be a minimum of \$50,000, stabilizing at approximately \$35,000 annually for subsequent years.

Task 2: Coordinate Implementation of Capital Development and Marketing Plans

As funding is secured for each bicycle facility improvement, detailed design plans will be required to guide the improvement, and contractors will need to be engaged to undertake the work. In some cases, municipalities may be able and willing to complete the improvements based on professional design plans. It is recommended that the CA (Coordinating Agency) commission the preparation of design plans in accordance with the capital development plan (Phase 2, Task 1, above) and let contracts for the required construction work.

In addition, it recommended that the CA commission the design, manufacturing and installation of Cycling Route signs in accordance with the capital development plan and the marketing plan (Phase 2, Task 1, above; Section 5.2, below).

Task 3: Coordinate Ongoing Maintenance and Upkeep of the Route

Maintenance and monitoring of facilities once they are constructed is a critical aspect of service delivery that is often “short changed” or even overlooked. Pathways must be treated like any other municipal asset, and any plans to move forward with implementation of off-road pathways must be accompanied by a parallel effort to maintain them in good condition. The general objectives of a trail maintenance and monitoring program are to:

- Provide safe, dependable and affordable levels of service;
- Reduce exposure to liability;
- Preserve infrastructure assets;
- Protect the natural environment;
- Enhance the appearance and health of the community;
- Provide a reference framework against which to measure performance;
- Periodically measure facility performance so that adjustments and improvements can be made in the delivery of pathways in the future;
- Provide the basis of a peer review that is comparable with other municipalities; and
- Provide citizens and Council with a reference for expectations.

When determining maintenance costs for cycling facilities the following should be kept in mind:

- An absolute dollar value for maintenance costs was not calculated for either the on or off-road cycling route as part of the study as the budget for maintenance will need to grow in an incremental fashion along with the incremental growth of the route. As each new segment is added (either on or off-road), the impact to the operations budget should be calculated by those who will ultimately be responsible for the route’s implementation;
- Maintenance costs for on-road facilities are estimated to range from \$5,000 to \$9,000 km/year depending on the facility type (paved shoulder with edgelines /signs, bike lane in urban area, painted lines vs. thermo plastic stencils etc.) and economies of scale gained from incorporating cycling facility maintenance in the current road maintenance programs. Annual maintenance can include but is not limited to line and stencil reapplication, replacement of bike lane and bike route signs, minor asphalt repairs (pothole patching and crack sealing), sweeping, snow plowing and replacement of older style catch basic grates with bicycle friendly grates ; and
- Maintenance of mature off-road multi-use trails in an urban setting, particularly in greenways and parks can range between \$1,000 to \$4,000 per linear kilometre of trail (3.0 m wide), depending on the level of service standard of a municipality. Annual maintenance can include drainage and storm channel maintenance, sweeping, clearing of debris, trash removal, weed control and vegetation management, mowing of grass along shoulders, minor surface repairs, repairs to trail fixtures (benches, signs) and other general repairs. Annual

maintenance costs for off road-multi-use trails in rural areas such as those along abandoned railway lines can be significantly less (e.g. as low as \$300 to \$800 per kilometre per year).

Maintenance and upkeep of the bicycle facilities -- including riding surfaces, signs, and bicycle racks -- will be the responsibility of the Ontario Ministry of Transportation (provincial highways), host municipalities (secondary roads and streets in cities, towns and townships), and host First Nation communities (secondary roads and streets on First Nation reserves). The CA will be responsible for coordinating this maintenance and upkeep through:

- Regularly scheduled inspection, recording and reporting on maintenance and upkeep requirements; and
- Where possible, assisting host municipalities and host First Nation communities to apply for funding from provincial and federal programs to undertake or assist with the costs of maintenance and upkeep

If required maintenance and upkeep is not undertaken in a timely fashion, it would be the responsibility of the CA to advise Cycling Route users and to direct them to alternative routing to avoid substandard facilities

Task 4: Monitor and Report on Route Use and Related Regional Benefits

Important to maintaining support for the Lake Huron North Channel Cycling Route will be monitoring the economic benefits communities that are generated by developing, maintaining and promoting the Cycle Route, and reporting the benefits to users, regional businesses, host municipalities and host First Nation. It is recommended therefore, that the CA develop and implement a program for monitoring use of, and benefits accruing from, the Cycle Route. Elements of the monitoring program should include, but not necessarily be limited to, the following:

- Sampling and recording the number of Cycling Route users through some combination of:
 - Self-reporting QR codes on Route signs linked to the Lake Huron North Channel Cycle Route website (see Section 5.2.5 below);
 - Mechanical counters installed at various locations along the Cycling Route;
 - Periodic observation, reporting and recording by volunteers riding sections or stationed at key points along the Cycling Route;
 - Reporting by a sample of businesses along the Cycling Route who are trained and equipped to collect and report data on riders; and/or
 - Installation of webcams at identified points along the Cycling Route and periodic review of video footage to count the number of users.
- Developing a methodology for deriving estimates of total monthly and annual users from collected and reported data;
- Using data collected by Statistics Canada's travel surveys regarding spending patterns and average spending amounts for travelling cyclists to estimate the amount of spending generated by the estimated number of Cycling Route users;
- Through periodic surveying of host municipality and First Nations community economic development and/or planning staff, identify the number and value of new businesses and business expansion of cycle tourism related businesses located along or near the Cycling Route; and

- Preparing and circulating an annual report to Route stakeholders that reports on investments in bicycle facility development, spending on bicycle facility maintenance and upkeep, and estimated economic benefits generated through bicycle facility improvements, maintenance and upkeep, business investment and user spending. The Ontario Tourism Regional Economic Impact Model (TREIM), available for use on the Ontario Ministry of Tourism website, can be used to prepare an estimate of these economic benefits based on inputs such as those identified above (i.e. number of users, user spending, investment in bicycle facility improvements, maintenance and upkeep spending, and business investment). Hard copies of the report should be provided to the Ministry of Transportation, host municipalities and host First Nation communities. Electronic file copies of the report should be available for downloading from the Lake Huron North Channel Cycling Route website, and social media should be used to announce when reports are available.

5.1.3 Other Considerations – Risk Management & Liability

Exposure to potential lawsuits and concerns from private landowners who grant easements or who are located adjacent to off-road pedestrian and cycling facilities are sometimes perceived as liability concerns. Bike lanes, paved shoulder bikeways and signed only routes generally fall into the same liability pattern as roadways and sidewalks, meaning that the MTO, Municipality or First Nations Community under whose jurisdiction the segment may fall generally only becomes liable if the facility is improperly designed, constructed, or maintained.

Even though multi-use trails are separated from the roadway, they still may legally fall under the definition of a “highway”, since bicycles are legally defined as vehicles. This is an important point because if the courts make this interpretation, it means that cycling facilities are covered under many of the same basic immunities as other highways. It also illustrates the importance of adhering to provincial, national or other established design and construction guidelines, as this will provide the greatest legal protection. Aside from proper design and operation of pedestrian and cycling facilities, potential hazards associated with these facilities including accidents, theft, vandalism, and other problems should be addressed. This becomes much more acute when these facilities are located along waterways and residential backyard fences.

The following methods of reducing risk are proposed to help minimize the liability associated with providing designated cycling facilities:

- Improve the physical environment, increase public awareness of the rights and obligations of cyclists and pedestrians and improve access to educational programs in order to demonstrate that efforts are being taken to reduce the likelihood of accidents occurring and lawsuits being initiated by injured parties;
- Select, design and designate facilities in compliance with the highest prevailing standards. Regulatory signs, as identified by the MTO Manual of Uniform Traffic Control Devices, should be used to indicate the applicability of legal requirements that might not otherwise be apparent;
- Design concept(s) should comply with all applicable laws and regulations (e.g. Ontario Highway Traffic Act, current by-laws etc.);
- Maintenance operations should conform to acceptable standards. If a hazard cannot be removed, it must be isolated with barriers or notified by clear warning signage;

- Monitor on a regular basis the physical conditions and operations of roadways and pathway facilities. All reports of hazardous conditions received from cyclists, pedestrians, police or others should be promptly and thoroughly investigated;
- Keep written records of monitoring and maintenance activities;
- Avoid describing or promoting routes or pathways as “safe” or “safer” than alternatives. Industry practices suggest that it is preferable for facility users to assess their capabilities themselves and govern their choices accordingly; and
- Maintain proper insurance coverage as a safeguard against having to draw payment for damages from the public treasury.

5.2 Marketing Strategy

This marketing strategy identifies the key marketing activities that are recommended to be included in the marketing plan prepared by the CA (Section 5.1.2, above). At the time that the plan is prepared, there may be additional marketing activities included in the marketing plan based on the specific market conditions and opportunities at that time.

5.2.1 Brand

Promoting and advertising to potential users will be substantially enhanced through the use of a brand, comprising at a minimum a unique name and visual identity.

It is recommended that consideration be given to using the name Lake Huron North Channel Cycling Route or Lake Huron North Channel Cycleways, to refer to all of the connected current and future cycling trails and routes that would permit a cyclist to ride from the waterfront in Sault Ste. Marie to Ramsey Lake in Sudbury. With such an approach, individual trails, sections of trails and routes comprising the route would retain or be given unique names that relate to their location and/or heritage. This is the approach used by the Peak District Cycleways (<http://www.peakdistrictcycleways.co.uk/>) in the United Kingdom. As examples:

- The combination of trails, streets, and roads comprising the most direct route between Sault Ste. Marie and Sudbury (identified as the primary route in Section 4.5), could be named/signed as the “Soo to Sudbury Route” and also signed as part of the Lake Huron North Channel Cycling Route/Cycleways;
- The Hub Trail in Sault Ste. Marie would retain its name while some sections of the Trail would also be identified and signed as part of the “Soo to Sudbury Route” of the Lake Huron North Channel Cycling Route;
- Highway 17B from Trunk Road to Echo Bay could be named the Garden River Route while also being identified and signed as part of the “Soo to Sudbury Route” of the Lake Huron North Channel Cycling Route;
- The series of connected off road bicycle trails on the west side of Blind River could be named the Blind River Bicycle Trail while also being identified and signed as part of the “Soo to Sudbury Route” of the Lake Huron North Channel Cycling Route;
- River Road from Walford to Massey could be named the Spanish River Route while also being identified and signed as part of the “Soo to Sudbury Route” of the Lake Huron North Channel Cycling Route;

- The off road bicycle trails along the shore of Ramsey Lake in Sudbury would retain their current name while also being identified and signed as part of the “Soo to Sudbury Route” of the Lake Huron North Channel Cycling Route; while
- The Deer Trail (route from Iron Bridge to Highway 17 near Spanish), St. Joseph Island cycle routes, Highway 638 from Echo Bay to Bruce Mines, and Highway 6 south from Espanola to Manitoulin Island could all be identified and signed as part of the Lake Huron North Channel Cycling Route, but not part of the “Soo to Sudbury Route”.

It is recommended that a visual identity, comprising a unique logo, colours to be used in the logo, and a typeface to be used in the logo, on signs, on the website and in print advertisements be developed for the Lake Huron North Channel Cycling Route.

5.2.2 Signs

At a minimum, it is recommended that three types of signs be designed, fabricated and installed on the primary route between Sault Ste. Marie and Sudbury:

- Wayfinding signs installed along trails, streets and/or roads, and at intersections of trails, streets and roads, to signify that the segment of trail, street and/or road is part of the primary route;
- Information signs that identify the location of points of interest and services along or near the primary route; and
- Trailhead signs at staging areas that show a detail map of the route to the next staging area, while providing information about the primary route and the overall Lake Huron North Channel Cycling Route/Cycleways.

In addition, if the Cycle Route/Cycleways approach to naming is accepted, small logo type signs used to identify streets, roads and trails that are part of the Route/Cycleway but not part of the primary route, should also be designed, manufactured and installed.

5.2.3 Maps

Along with signs, maps are one of the most important marketing tools for a cycling route and need to be designed to accommodate a range of uses and users. A variety of map scales, detail, sizes and formats are recommended, including but not necessarily limited to the following:

- Large scale, printed map brochure – a map of the entire primary route printed on a tri-fold type of brochure with editorial describing the route, destinations and things to see and do along the route, and how/where to get more detailed mapping and trip planning information. This map brochure would be used primarily as a lure piece for distribution through Visitor Information Centres and at tourism attractions and businesses in RTO13.
- Small scale, printed maps on waterproof paper – a series of maps with each covering approximately 40-50km of the overall route, showing the route in detail along with the locations of trailheads/staging areas, points of interest, attractions, accommodation, restaurants, public washrooms, hospitals, and other services and facilities of interest to cyclists. These would be used primarily by cyclists while riding the route. In addition to printed

versions, the maps could be made available through the Cycling Route website as downloadable pdfs (see Waterfront Trail <http://www.waterfronttrail.org/trail.html>)

- Scalable, digital map – a map of the entire primary route as well as links and alternate routes, locations of trailheads/staging areas, points of interest, attractions, accommodation, restaurants, public washrooms, hospitals, and other services and facilities of interest to cyclists. Ideally this map would be available on the Lake Huron North Channel Cycle Route website to enable pre-trip planning, and also available as an application for use on a smart phone equipped with gps. The mobile application would allow cyclists to navigate the Cycling Route using a smart phone or mobile tablet computer (see Sustrans Network <http://www.sustrans.org.uk/map> and Toronto Bike Map <http://itunes.apple.com/ca/app/toronto-bike-map/id383032026?mt=8> for examples).

5.2.4 Online Presence

Given the importance of the Internet as a travel promotion and planning tool, it is recommended that the Cycling Route have a strong Internet presence, including but not necessarily limited to:

- Website – the online warehouse of all information about the Cycle Route including:
 - Maps (see 5.4.3 above);
 - Route facts, distances, etc.
 - Photos and videos of the Route, points of interest and attractions along the Route, and Route events;
 - Telephone and email contact information for the Coordinating Agency (see 5.1.2 above);
 - Web links to websites for destinations and businesses along the Route, including businesses offering guided tours and/or tour support services;
 - Web links to Facebook, Twitter, YouTube and Flickr accounts for the Route
 - History about the origins and development of the Route;
 - Announcements about planned and just completed Route facility improvements;
 - Route conditions report identifying up to date riding surface conditions, such as secondary roads recently graded, with new gravel applied, and/or hard topped; and
 - Calendar with schedule of cycling and other types of events happening along the Route.
- Mobile App – a mobile device optimized version of the website, with the key featuring being a scalable Route map integrated with the device's GPS (see 5.1.3 above);
- Facebook page – populated with much the same information as available on the website, but also encouraging Route users to post their comments, photos and videos of their Route experiences;
- Twitter account – frequent posts to announce events along the Route, links to new photos and videos posted online, etc.
- Flickr or similar photo sharing website account – a complete archive of photos of the Route, points of interest and attractions along it, and events that occurred on it, including photos taken by representatives of the CA as well as Route users; also web links to the website, Facebook page and YouTube account; and
- YouTube account – same as for Flickr or photo sharing website account (above), but for videos.

5.2.5 Product Development

From a tourism perspective, the Lake Huron North Channel Cycling Route is cycle tourism infrastructure that will facilitate cycle tourism experiences. Product development typically refers to the provision of additional facilities or services, often together in a single package that can be purchased, which increases the convenience for cycle tourists wishing to enjoy a cycle tourism experience on the Cycle Route.

It is recommended that the Coordinating Agency work with private businesses located along the Route to develop cycle tourism products, including but not limited to the following:

- Guided day, overnight and multi-day cycle tours – likely to be small groups (10 or less) lead by a tour leader familiar with the route, its points of interest, attractions, etc., for tours of varying distance and time. The overnight and multi-day tours would include pre-booked meals and accommodation and possibly the option of luggage being transported by support vehicle.
- Cycle touring support services – for cyclists choosing overnight or longer self-guided rides, this might include the rental of GPS units and luggage being transported to destinations. For self-guided day tours, it might include the rental of GPS unit and emergency roadside service in the event of mechanical breakdown, injury or fatigue.
- Accommodation & restaurant packages – local accommodation and restaurants located along or near the Cycling Route could combine their offerings to provide meal and accommodation packages for cyclists.

In addition to product developed by private businesses, it is recommended that the Coordinating Agency develop themed cycle touring itineraries of varying lengths from day to overnight and longer that would be available as hard copy maps or digital maps downloadable from the Cycling Route website.

5.2.6 Print Listings & Advertisements

It is recommended that the Coordinating Agency develop and place print advertisements (newspapers, magazines, regional visitor guides) and listings (provincial and regional visitor guides) to assist in raising awareness of the cycle tourism experiences supported by the Cycling Route.

5.3 The Investment

The success of the Lake Huron North Channel Cycling Route depends on the commitment of local partners to its implementation, including funding for construction and maintenance of the infrastructure and marketing and promotion.

Table 5-1 provides a high-level cost estimate to develop the infrastructure along the route. This conservative estimate is based on unit costs for similar projects across Ontario. Much of the route requires only minor improvements for signing and wayfinding, however there are some sections that require more significant improvements before those sections can be marketed as part of the Route. In particular there are approximately 51km of roadway that require shoulder paving, the majority of which is on sections of Highway 17 that form part of the recommended route. In addition there are approximately 53km of gravel surfaced roads that should be considered for hard surfacing (i.e. Tar and Chip) in future so they are more conducive to cycling. These locations are illustrated in Maps D-1 through D-7 found in Appendix D. In the interim route signing on the gravel roads can be implemented and the routes can be marketed/promoted provided that users are made aware that these sections are currently gravel so they can organize their route and equipment.

Table 5-1: Lake Huron North Shore Bicycle Route Costing				
Facility Type and Improvements		Unit Cost / Km⁵	Distance (km)	Total Cost
Signage	Signage in Rural Areas ¹	\$ 200	298.0	\$ 59,600
	Signage in Urban Areas ²	\$ 2,000	72.0	\$ 144,000
	Signage for Entire Route		370.0	\$ 203,600
Paved Shoulder³		\$ 110,000	69.5	\$ 7,645,000
New Stonedust Screened Off-Road Trail / Improvements to Existing Trails		\$ 150,000	6.5	\$ 975,000
New Paved Off-Road Off-Trail		\$ 250,000	5.2	\$ 1,300,000
New Bike Lane (Price for both sides of the road, includes signs, stencils and edgeline. Price is for conventional paint)		\$ 7,500	3.1	\$ 23,250
			Sub-total (Implementation)	\$ 10,146,850
			+ Design / Contingency (20%)	\$ 2,029,370
			Total Implementation Cost + Design / Contingency	\$ 12,176,220
Total Constructions Cost + Contingency per KM (Based on 370km route length)		\$ 32,909		
OPTIONAL: Recommended Single Treatment of Tar and Chip Surfacing to Existing Gravel Roads⁴		\$ 974,000		

NOTES

Cost summary represents the costing relating to the implementation, design and contingency related to development of Lake Huron North Channel Bicycle Route. Costing does not include marketing, promotion or operations.

1 - Bike route and route identification signage, 300mm x 300mm c/w metal post, 1 per KM per side.

2 - Bike route and route identification signage, 300mm x 300mm c/w metal post, 5 per KM per side.

3 - Paved shoulder preferred design width of 2.0 metres on high speed / high volume roads such as Highway 17 and may include, where possible a 0.5 metre pavement marking buffer (minimum width of 1.5 metres for low speed / low volume roads may be considered).

4 - 48.7km x \$20 000/km. Unit cost of \$20 000 is based on upgrading an 8 metre gravel roadway with a single treatment of tar and chip surfacing. Double treatment tar and chip surfacing unit cost - \$35 000 / km. This optional cost is not included in the \$12,176,220 cost estimate.

5 - Unit costs are blended rates and based on typical unit pricing from other projects. It is an estimate only. Individual route segments must be designed and then costed at the time implementation is scheduled.

The total infrastructure investment is estimated to be \$10,146,850 (\$12,176,220 including 20% for design and other contingencies). Based on similar models for multi-jurisdictional cycling routes such as the Waterfront Trail along Lake Ontario and Lake Erie, it is assumed that each local authority would be responsible for implementing the recommended signage and roadway/trail improvements within their jurisdiction and the Ministry of Transportation would be responsible for the cost of shoulder paving along sections of provincial highways that form part of the recommended route.

The other main costs include:

- A one-time cost of for preparing the Capital Development Plan – estimated at \$75,000
- Preparation and maintenance of Memoranda of Agreement - estimated at \$25,000/yr
- Development, launch and ongoing maintenance of the Marketing Plan – estimated at \$50,000 per year for the first 2 years, and \$35,000K annually thereafter

5.3.1 Potential Funding Partnerships & Programs

To assist in reducing taxpayer costs, outside funding opportunities should be pursued. Recently funding sources made available for Active Transportation, cycling, pedestrian and trail projects have been increasing popularity and the growing importance of their relationship to multi-modal transportation systems and overall community health. It is expected that this trend will continue. Some outside funding opportunities may include:

- Local Municipal Programs;
- Federal / Provincial Gas Tax;
- Transport Canada's ecoMobility (TDM) grant program;
- Federation of Canadian Municipalities Green Municipal Fund;
- Ontario Ministry of Tourism, Culture and Sport;
- Ontario Ministry of Health and Long Term Care grant programs and partnership streams such as the Healthy Communities Fund and promotional initiatives related to health/active living/active transportation;
- Ontario Ministry of Environment Community Go Green Fund (CGGF);
- Ontario Ministry of Transportation Demand Management Municipal Grants and Ministry of Infrastructure's Municipal Infrastructure Investment Initiative;
- Various Federal and Provincial Infrastructure/ stimulus programs that are offered from time to time;
- The Ontario Trillium Foundation that was recently expanded in response to the money collected throughout the Province by casinos;
- The Trans Canada Trail Foundation (currently as part of the Foundation's "Connection Plan"). Only for those sections of the network that are designated as part of the Trans Canada Trail in the city would be eligible);
- Human Resources Development Canada program that enables personnel positions to be made available to various groups and organizations;
- Corporate Environmental Funds such as Shell and Mountain Equipment Co-op that tend to fund small, labour-intensive projects where materials or logistical support is required;

- Corporate donations which may consist of money or services in-kind, and have been contributed by a number of large and small corporations over the years;
- Potential future funding that might emerge from the Province in rolling out the Ontario Trails Strategy;
- Service Clubs such as the Lions, Rotary and Optimists who often assist with high visibility projects at the community level; and
- Private citizens' donations/bequeaths, and this can also include a tax receipt for the donor where appropriate.

Specific to growth and development within Northern Ontario, the following funding partnerships could be explored for the development of the proposed Lake Huron North Channel Cycling Route.

- Northern Ontario Heritage Fund Corporation which provides funding support to help build strong, prosperous northern communities. There are seven potential funding programs available which are designed to help local businesses and municipalities grow through strategic economic development. These programs include:
 - Emerging Technology
 - Enterprises North Job Creation
 - Infrastructure and Community Development
 - Northern Energy
 - Northern Ontario Entrepreneur
 - Northern Ontario Young entrepreneur; and
 - Youth Internship and Co-op

As it pertains to the development of the Lake Huron North Channel Cycling Route, it is recommended that opportunities under the Infrastructure and Community Development funding program be explored to further support the development of the proposed cycling programs and infrastructure.

- The Northern Ontario Development Program (FedNor) which invests in projects that support community economic development, business growth and competitiveness and innovation. The goal of the program is to encourage economic growth, diversification, job creation and self-reliant communities within Ontario. There are three priority areas which identify criteria to receive funding. They include:
 - Community Economic Development
 - Business Growth and Competitiveness
 - Innovation

Based on the assessment of these criteria as well as the goals and objectives of the study it is encouraged that Tourism Sault Ste. Marie explore the opportunity of receiving funding from FedNor based on the Community Economic Development or Business Growth and Competitiveness Priority areas.

6.0 CONCLUSIONS & SUMMARY OF RECOMMENDATION

6.1 Summary of Recommendations

For ease of reference this section provides a consolidation of all recommendations found throughout the study report:

Section 4.3 Cycling Facility Types & Design Alternatives Guide Recommendations

1. When implementing the Lake Huron North Channel Cycling Route the underlying principles of Crime Prevention through Environmental Design (CPTED) should always be considered including natural access control, natural surveillance, territorial reinforcement and maintenance.
2. Properly located entrances, exits, fences, landscaping and lighting should direct both foot and automobile traffic in ways that discourage crime.
3. That the Facility Selection Nomograph be considered as a tool for pre-selecting a candidate active transportation facility type for various sections of the Lake Huron North Channel Cycling Route.
4. Signed-only cycling routes are appropriate for local urban and rural streets where traffic volumes are low and speeds are low to moderate.
5. On low volume rural roads with limited truck traffic, good sight lines and physically constrained rights-of-way, the route may be designated as a cycling route, with cyclists and motorists expected to share the same lane. “Share the Road” signs should be erected at strategic locations to communicate this message to all road users.
6. The minimum recommended width for a signed-only cycling route with a wide curb lane is 4.0 m. The maximum recommended width is 5.0 m.
7. Where the width of a wide curb lane exceeds 5.0 m along a designated cycling route, the application of shared use lane pavement markings or bike lane markings should be considered to indicate the presence of cyclists on the roadways to motorists. See Section 4.4.2.5.
8. Signed Bike Routes with Paved Shoulders may form part of the Lake Huron North Channel Cycling Route along rural road cross sections and are the preferred facility type for connecting rural communities using rural roads.

9. Bike lanes should be provided on urban arterial and major collector roads that are part of the route where traffic volume and operating speeds are considered high. Bike lanes should also be clearly identified on roadways with bicycle symbol pavement markings and 'Reserved Bicycle Lane' signs.
10. In-boulevard Cycling Facilities (also may be referred to as Active Transportation Pathways located in the boulevard of a roadway) may be considered in areas where there is high cycling demand and a large proportion of the users are recreational users with a low to moderate level of experience and where there are few intersections / driveways per kilometre (frequent intersections/driveways are conflict points)
11. Off-Road Multi-use Trails provide for the widest range of user ability and should be considered as an integral part of the Lake Huron North Channel Cycling Route where feasible. Multi-use Trails also provide connections to other local/secondary trails.
12. Tourism Sault Ste. Marie and local partners should develop a route branding and signage strategy using the sign types outlined in the Lake Huron North Channel Cycling Route Study as a guide.

Section 5.1 Implementing the Plan Recommendations

Section 5.1.1 Phase 1: Support & Organization Recommendations

1. A temporary Working Group with representation from key stakeholders located along the Cycling Route should be developed to manage the transition from the completion of the Study to the establishment of a more permanent organization. The Working Group will be developed to coordinate capital development, marketing and ongoing maintenance of the Route.
2. An Executive Committee of three representatives be formed to direct and lead the Working Group activities.
3. The Working Group should engage in additional consultation sessions with First Nations representatives in order to secure representation / members on the Working Group
4. Consultation with the general public should be undertaken in municipalities along the proposed Cycling Route by the Working Group following its inception.
5. Within each municipality that the Cycling Route crosses, the MOA should:
 - Describe the vision, purpose and objectives of the proposed Cycling Route, as well as the regional economic benefits that are expected to accrue from its development and operation;
 - Describe and illustrate the overall proposed routing as well as the detailed routing through the particular municipality named in the MOA;
 - Identify the estimated capital costs for recommended upgrades in the particular municipality named in the MOA and commit the municipality, in principle, to undertaking the recommended upgrades in a timely fashion as municipal budgets allow; and
 - Commit each municipality, in principle, to contributing funds to support the operation of the Route coordinating organization to be established in Phase 2. The MOA would allow for the amount of contribution to be negotiated

at a later date once the expected operating costs for the organization and other sources of revenue/funding have been identified.

6. Within each First Nation community that is hosting a section of the Route, the MOA should:
 - Describe the vision, purpose and objectives of the proposed Cycling Route, as well as the regional economic benefits (Section 5.5, below) that are expected to accrue from its development and operation;
 - Describe and illustrate the overall proposed routing as well as the detailed routing through the particular First Nation community named in the MOA;
 - Commit each First Nation community to allowing and endorsing the use of the specific roads and streets in their community that are part of the recommended route;
 - Identify the estimated capital costs for recommended upgrades in the particular First Nation named in the MOA and commit the First Nation, in principle, to undertaking the recommended upgrades in a timely fashion as community budgets allow; and
 - Commit each First Nation, in principle, to contributing funds to support the operation of the Route coordinating organization to be established in Phase 2. The MOA would allow for the amount of contribution to be negotiated at a later date once the expected operating costs for the organization and other sources of revenue/funding have been identified

7. The MOA should work collaboratively with MTO to:
 - Describe the vision, purpose and objectives of the proposed Cycling Route, as well as the regional economic benefits that are expected to accrue from its development and operation;
 - Describe and illustrate the overall proposed routing as well as the detailed routing on provincial Highways 17 and 6; and
 - Identify the estimated capital costs for recommended upgrades on Highways 17 and 6 and commit MTO, in principle, to undertaking the recommended upgrades in a timely fashion as provincial budgets allow.

8. The Working Group is to prepare a proposal to the province to seek start-up funding as a regional bicycle route Coordinating Agency (CA), similar in purpose and organization to the Waterfront Regeneration Trust.

Section 5.1.2 Phase 2: Route Development, Maintenance and Marketing

9. It is recommended that the Capital Development Plan commence in year 2 or 3 and that its estimated cost of \$75,000 be funded by some or all of the partners identified in Phase 1, ideally with support from the Provincial and Federal Governments.

10. The annual marketing budget allocated to third party expenditures for each of the first two years of the three year proposed timeline should be a minimum of \$50,000, stabilizing at approximately \$35,000 annually for subsequent years.

11. The CA should commission the design, manufacturing and installation of Cycling Route signing in accordance with the capital development plan and marketing plan identified in Phase 2, Task 1 and Section 5.4 of the study report.
12. It should be the responsibility of the Ministry of Transportation (provincial highways), host municipalities (secondary roads and street in cities, towns and townships), and host First Nations communities (secondary roads and streets on First Nation reserves) to ensure the cycling facilities and infrastructure are maintained including riding surfaces, signs and bicycle racks.
13. The CA should develop and implement a program for monitoring use of, and benefits accruing from, the Cycle Route consistent and building upon those monitoring elements identified in Phase 2, Task 4.
14. The MTO, local municipality or First Nations community under which the segment of the proposed cycling route falls should be made aware of the risk management and liability considerations necessary for the design and implementation of the route.

Section 5.2 Marketing Strategy Recommendations

1. Consideration should be given to using the name Lake Huron North Channel Cycling Route or Lake Huron North Channel Cycleways to refer to all of the connected current and future cycling trails and routes.
2. A visual identity, comprising a unique logo, colour be used in the logo and a typeface to be used in the logo, on signs, on the website and in print advertisements be developed for the Lake Huron North Channel Cycling Route / Cycleways.
3. Three types of signs be designed, fabricated and installed on the primary route between Sault Ste. Marie and Sudbury:
 - Wayfinding signs installed along trails, streets and/or roads, and at intersections of trails, streets and roads, to signify that the segment of trail, street and/or road is part of the primary route;
 - Information signs that identify the location of points of interest and services along or near the primary route; and
 - Trailhead signs at staging areas that show a detail map of the route to the next staging area, while providing information about the primary route and the overall Lake Huron North Channel Cycling Route/Cycleways.
4. Once the Cycle Route / Cycleways approach to naming is accepted, small logo type signs used to identify streets, roads and trails that are part of the Route / Cycleway but not part of the primary route, should be designed, manufactured and installed.
5. Mapping should be developed at a variety of scales, detail, sizes and formats including but not limited to:
 - Large scale, printed map brochure;
 - Small scale, printed maps on waterproof paper; and
 - Scalable, digital map.
6. The CA should explore the development of a strong internet presence to be used to promote the Cycling Route including but not limited to the development of a website, a mobile app, a Facebook page, a twitter account, Flickr or similar photo sharing website account and / or a YouTube account.

7. The CA should work with private businesses located along the Route to develop cycle tourism products, including but not limited to:
 - Guided day, overnight and multi-day cycle tours;
 - Cycle touring support services; and
 - Accommodation & restaurant packages.
8. The CA should develop themed cycle touring itineraries of varying lengths from day to overnight and longer that would be available as hard copy maps or digital maps downloadable from the Cycling Route website.
9. The CA should develop and place print advertisements (newspapers, magazines, regional visitor guides, etc.) and listings (provincial, and regional visitor guides) to assist in raising awareness of the cycle tourism experience supported by the Cycling Route.

6.2 Conclusion

The proposed Lake Huron North Channel Cycling Route has been developed to support cycle tourism in Northern Ontario through connecting destinations and attractions from Sault Ste. Marie to Greater Sudbury and to generate economic, tourism, health and environmental benefits for residents and visitors.

The study team has reviewed, refined and confirmed a previously developed route concept which provides long and short-distance recreational touring cyclists with a route that allows them the opportunity to explore and experience a part of Northern Ontario from Sault Ste. Marie to Greater Sudbury and that can form part of a future provincial scale cycle touring route network.

The study and feasibility assessment which was undertaken and the report which has been developed outlines strategic priorities with regard to route implementation, promotion and marketing within the short to long term to ensure that a successful cycling route is implemented along the Trans-Canada corridor. The implementation of a cycle touring route as well as the economic benefits which could be realized with its implementation are not only beneficial to the two cities which it connects but also the local communities, key tourist destinations and natural and cultural features along the route including but not limited to local restaurants, tourist features, businesses, hotels, art galleries etc.

Tourism Sault Ste. Marie and its partners, including First Nations, local stakeholders and interest groups are encouraged to use this document as a guide for the development and implementation of the route in both the short and long term. The recommendations outlined have been designed to provide direction on how to initiate the route's implementation, marketing and promotion in a realistic and achievable manner so as to serve as a blueprint to develop the Lake Huron North Channel Cycling Route as a tourist attraction that encourages more people to visit and experience Northern Ontario.



Sault Ste.
Marie

Sudbury

LAKE HURON

NORTH CHANNEL CYCLING ROUTE STUDY

APPENDIX A

CONSULTATION MATERIALS

Lake Huron – North Channel Bike Route Questionnaire

TOURISM SAULT STE. MARIE

In the spring of 2010, Tourism Sault Ste. Marie and the Sault Cycling Club set up a Steering Committee to investigate the opportunity surrounding the development of the Lake Huron North Channel Bike Route concept. A preliminary route was developed and presented at the 2011 Northern Ontario Bike Summit. The route alignment is based on the goal of keeping cyclists off the main Trans Canada Highway / Highway 17 corridor wherever feasible and connecting as many communities as possible between Sault Ste. Marie and Sudbury. As a next step, Tourism Sault Ste. Marie and the Lake Huron North Shore Bike Route Steering Committee are undertaking a study to develop an implementation and marketing plan for the sustainable development of this route.

The objectives of the implementation and marketing plan include reviewing the route concept plan and identifying the best route options, communicating with stakeholders and incorporating their ideas, developing information and recommendations to move forward with trail development and identifying potential funding opportunities. More specifically, the study is meant to:

- Produce a business and management plan based on tourism and economic values and non-motorized trail opportunities that shows “best bet” route options and the financial sustainability of a Bike Route, serving as a Community Connecting Corridor between Sault Ste. Marie and Sudbury, along Lake Huron’s North Channel;
- Identify safe touring and healthy recreational opportunities along the Corridor, utilizing Municipalities, First Nations and existing tourism facilities;
- Demonstrate to the stakeholders the tourism values and economic impact of the project;
- Identify costs associated with development of the route, as well as identifying funding opportunities to support this development;
- Demonstrate commercial value of project's tourism and economic values, and show how these would sustain of the ongoing maintenance of the corridor; and
- Develop an implementation and marketing plan for working collaboratively with associated communities and First Nations to develop the route.

Your input is important to the success of this study. This questionnaire should take approximately 15 minutes to complete. The information you provide will be invaluable in shaping the recommendations that are developed during the study. Note: This survey is not designed to provide statistically valid responses, but is intended to collect information and opinions about cycling from those who will be using the Lake Huron North Channel Bike Route or those who see the benefits in developing this regional bicycle touring route.

Should you have any questions or comments regarding this questionnaire or the study, please contact Lindsey Errington (see contact information below). All comments received will be documented, reviewed and considered as part of this study.

Lindsey Errington
Executive Assistant, Tourism Sault Ste. Marie
99 Forester Drive
Sault Ste. Marie, ON P6A 5X6
Tel: (705) 759 - 5442
Email: l.errington@ssmedc.ca

Lake Huron – North Channel Bike Route Questionnaire

1. Which part of the Lake Huron North Shore Region do you live in?

- City of Greater Sudbury (Mikkola, Lively, Whitefish, Azilda, Chelmsford, Garson, Capreol, Valley East, Copper Cliff)
- City of Sault Ste. Marie
- Garden River First Nation Reserve
- Municipality of Huron Shores
- Serpent River First Nation Reserve
- Town of Baldwin
- Town of Blind River
- Town of Espanola
- Town of Spanish
- Township of Johnson
- Township of Laird
- Township of McDonald, Meredith and Aberdeen Additional
- Township of Nairn and Hyman
- Township of North-Shore
- Township of Plummer Additional
- Township of Sables-Spanish River
- Township of Tarbutt and Tarbutt Additional
- Other: I live outside the Lake Huron North Shore Region

If Other (please specify)

2. What age group are you in?

- 18 or younger
- 19 - 25
- 26 - 40
- 41 - 54
- 55 - 69
- 70 or older

Lake Huron – North Channel Bike Route Questionnaire

3. What is your gender?

- Female
- Male

Lake Huron – North Channel Bike Route Questionnaire

4. Please indicate how often you participate in the following recreational activities. If you do not participate in a particular activity please select “Never”.

	Daily	Weekly	Monthly	Never
I cycle on roads and streets in or near my neighbourhood or community	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I travel elsewhere by car in the Lake Huron North Shore Region to reach a destination to cycle on roads and streets	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I cycle on off-road trails in or near my own neighbourhood or community	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I travel elsewhere by car in the Lake Huron North Shore Region to reach a destination to cycle on off-road trails	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I participate in other outdoor recreational activities such as walking and hiking on off-road trails	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I travel elsewhere by car in Lake Huron North Shore Region to reach a destination to walk and hike on off-road trails	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I participate in other outdoor recreational activities such as boating, sailing, canoeing, kayaking, sport fishing or hunting, or camping	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I travel elsewhere by car in Lake Huron North Shore Region to reach a destination to boat, sail, canoe, kayak, sport fish or hunt, or camp	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I participate in other outdoor recreational activities such as ATVing on off-road trails	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. When and how often do you cycle (select one response for each month)

	Daily	Weekly	Monthly	Never
January	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
February	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
March	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
April	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
May	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
June	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
July	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
August	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
September	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
October	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
November	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
December	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Lake Huron – North Channel Bike Route Questionnaire

6. During this past year please indicate the approximate percentage of time spent cycling along trails within the Lake Huron North Shore Region versus time spent cycling outside of this area. For example, 50% Lake Huron North Shore Region, 50% outside of Lake Huron North Shore Region (e.g. Northern Michigan, Manitoulin Island, Elliot Lake, Parry Sound). If you do not cycle, please skip this question.

(Enter only the number – i.e. 50 and not 50%. You must enter a number in each box so that the total of all numbers add up to 100.)

Cycle *within* Lake Huron North Shore Region

Cycle *outside* of Lake Huron North Shore Region

7. Please indicate how much time on average you spend cycling during a typical cycling trip.

- Less than a Day
- Day Trip
- 2 – 3 days (e.g. weekend)
- 4 – 7 days (i.e. a week)
- More than 1 week
- Never

Lake Huron – North Channel Bike Route Questionnaire

8. For each of the following statements, please indicate your personal comfort level, from not very comfortable (1) to very comfortable (5). (Rate all that apply)

	Not Very Comfortable				Very Comfortable
Cycling and sharing the road with motor vehicle traffic on major roads (e.g. Highway 17) without bike lanes or paved shoulders (typically has gravel shoulders)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cycling and sharing the road with motor vehicle traffic on major roads (e.g. Highway 17) with bike lanes or paved shoulders	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cycling and sharing the road with motor vehicle traffic on paved minor roads (e.g. local municipal roads) without bike lanes or paved shoulders	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cycling and sharing the road with motor vehicle traffic on very low volume gravel roads	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cycling and sharing the road with motor vehicle traffic on paved minor roads (e.g. local municipal roads) with bike lanes or paved shoulders	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cycling on off-road multi-use trails with limestone screening / gravel (may be located beside a major road / highway or completely off-road, such as a hydro corridor trail).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

9. Please select which reasons most often motivate you to cycle in the Lake Huron North Shore Region. (Select all that apply)

	Often	Sometimes	Rarely	Never
Touring, which includes day trips to multi-day trips to key destinations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Recreation, which includes fitness or recreational pursuits	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Destination oriented trips, which includes trips to and from shops, visiting friends and running errands	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Commuting, which involves journeys to and from work or school	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other (please specify)

Lake Huron – North Channel Bike Route Questionnaire

10. Please indicate the level of importance you would assign to each of the following statements below about why the Lake Huron North Shore Cycling Route between Sault Ste. Marie and Sudbury should be developed, from not very important (1) to very important (5).

	Not Very Important		Very Important		
To provide access to historic / cultural destinations for cyclists	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To support local tourism and economic development	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To provide places to cycle within communities for fun, fitness and recreation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To improve quality of life and health of Lake Huron North Shore Region residents	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To provide access to natural areas for cyclists	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To provide connections for cyclists among communities within the Lake Huron North Shore Region (eg. Greater Sudbury to Espanola to Massey to Blind River to Thessalon to Sault Ste. Marie and other communities including First Nations communities in between)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

11. What kind of information / features would you prefer on the Lake Huron North Shore Cycling Route? (Check all that apply)

- Staging areas with parking
- Trailheads (major trail access points) and Signage Maps
- Rest areas / benches and washrooms
- Interpretive signing at key locations along the route (e.g. Information on trail features)
- Distance information signage to rest areas and washrooms along the route
- Distance information and wayfinding signage to nearby outdoor recreational opportunities
- Distance information and wayfinding signage to nearby points of interest such as scenic lookouts, areas of historical and cultural significance, event venues, etc.
- Distance information and wayfinding signage to nearby facilities and services such as restaurants, overnight accommodations, retail stores, bicycle shops, etc.
- Distance information and wayfinding signage to nearby artist and artisan studios and shops where art and crafts can be viewed and/or purchased
- Trail accessibility information and signage at appropriate locations (e.g. accessible by wheelchair)

Lake Huron – North Channel Bike Route Questionnaire

12. In your opinion what are the top 5 destinations or points of interest that the Lake Huron North Shore Cycling Route should connect to? (Enter up to five (5) responses in order of importance – maximum 100 characters for each response)

1.
2.
3.
4.
5.

13. A route concept for the Lake Huron North Channel Bike Route between Sault Ste. Marie and Greater Sudbury was developed for the 2011 Northern Ontario Bike Summit. Please review this proposed concept, by clicking on the following link:

[Lake Huron North Shore Bike Route Concept](#)

Based on this proposed route concept, do you have any other route suggestions? List up to 5 route suggestions below. (Enter up to five (5) responses in order of importance - maximum 100 characters for each response.)

1.
2.
3.
4.
5.

14. Would you support the development of a Lake Huron North Channel Bike Route between Sault Ste. Marie and Sudbury? (Select one response)

- Yes
- Unsure
- No
- No Opinion

Lake Huron – North Channel Bike Route Questionnaire

15. Please enter any other comments or suggestions you have regarding the Lake Huron North Shore Cycling Route Study. (Maximum 1500 characters)



Lake Huron – North Channel Bike Route Questionnaire

Thank you for your input on the Lake Huron North Channel Bike Route Implementation and Marketing Strategy Study.

To forward this questionnaire to someone else, please provide them with the following link:

https://www.research.net/s/Lake_Huron_Trail

For more information, please contact:

Lindsey Errington

Executive Assistant, Tourism Sault Ste. Marie

99 Forester Drive

Sault Ste. Marie, ON P6A 5X6

Tel: (705) 759 - 5442

Email: l.errington@ssmedc.ca



Sault Ste. Marie

Sudbury



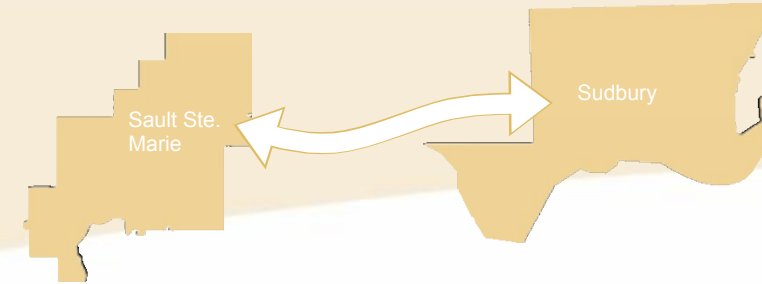
LAKE HURON NORTH CHANNEL BIKE ROUTE STUDY

STAKEHOLDER CONSULTATION

June 2012



LAKE HURON NORTH CHANNEL CYCLING ROUTE STUDY



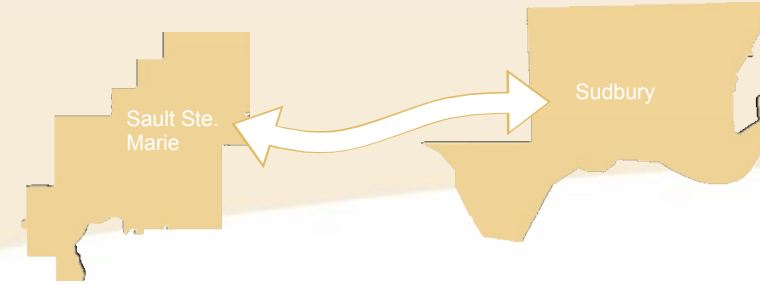
As a result of the **Northern Ontario Bike Summit in 2011**, an outline for a proposed bike route along the Lake Huron North Channel between the Cities of Sault Ste. Marie and Greater Sudbury has been developed. Tourism Sault Ste. Marie, in collaboration with local stakeholders and interest groups, has initiated the ***Lake Huron North Channel Cycling Route Study***.



Study Goal:

A cycling route connecting the Cities of Sault Ste. Marie and Greater Sudbury and the communities between them which can be used to connect key destinations and attractions and provide economic, tourism, health and environmental benefits for residents and visitors alike through the sustainable development of a community connecting corridor.

MEETING OBJECTIVE & AGENDA



Meeting Objective:

- To introduce the Lake Huron North Shore Cycling Route concept and begin discussions with community stakeholders regarding development of the route and implementation of the concept.

Agenda:

1. Introductions
2. Information about the Concept & the Proposed Route
3. Discussion
 - Comments/thoughts on the concept
 - Comments/thoughts on proposed routing
 - Comment/thoughts on marketing and management
4. Next Steps

THE ROUTE CONCEPT

Sault Ste. Marie

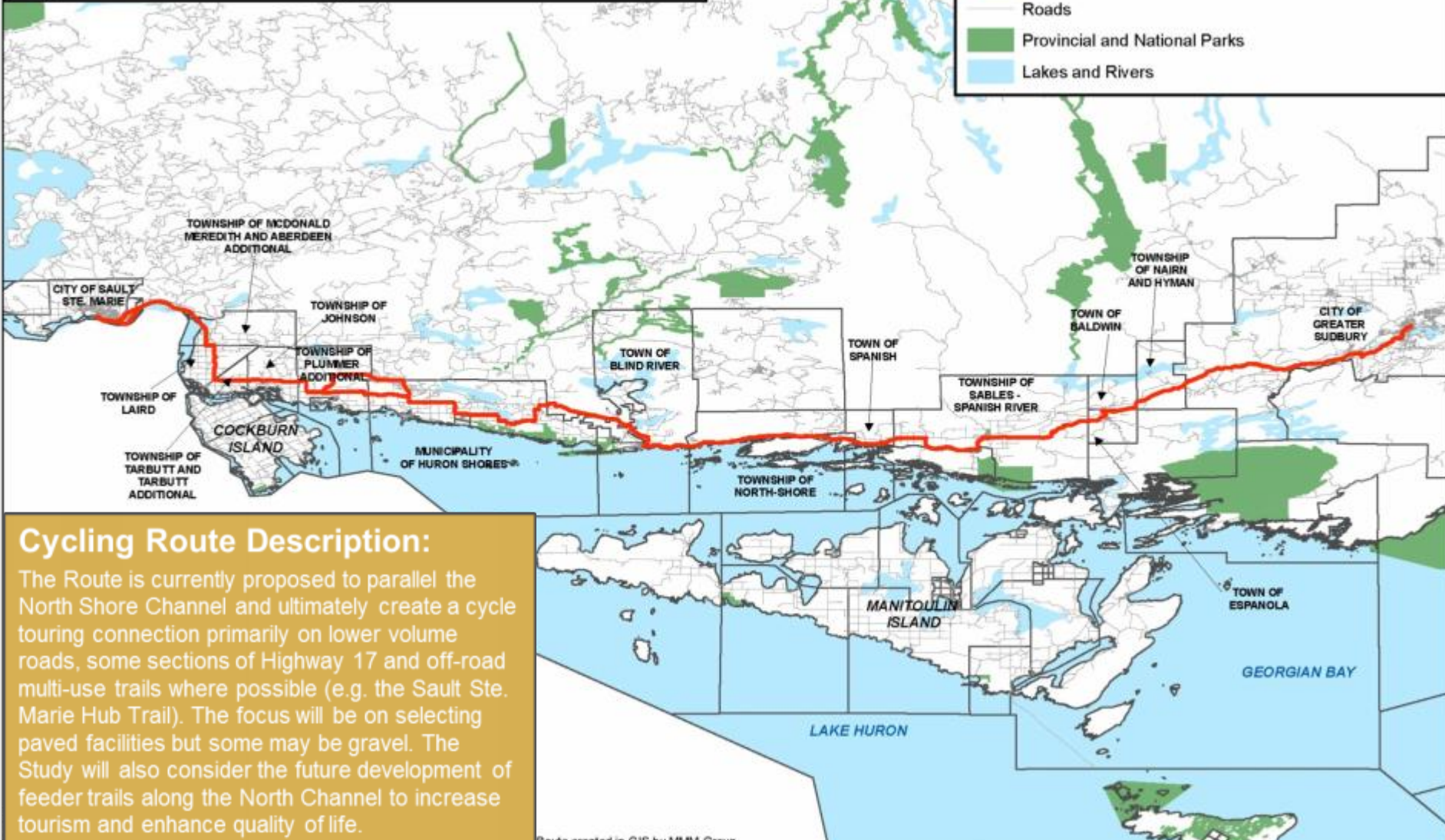
Sudbury



Lake Huron - North Channel Cycling Route
Figure 1 - Preliminary Route

Legend

- Preliminary Lake Huron - North Channel Cycling Route
- Roads
- Provincial and National Parks
- Lakes and Rivers

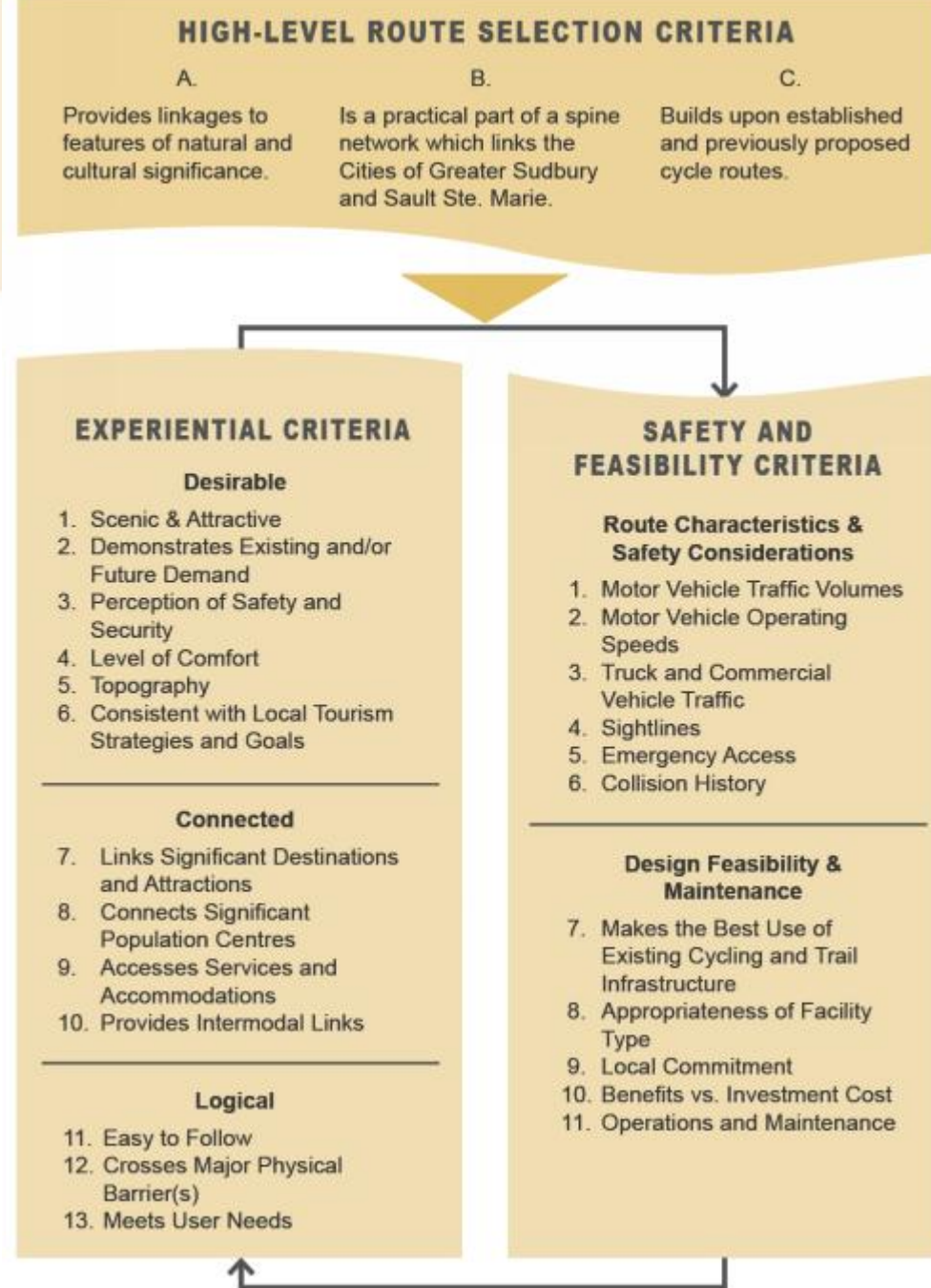


Cycling Route Description:
The Route is currently proposed to parallel the North Shore Channel and ultimately create a cycle touring connection primarily on lower volume roads, some sections of Highway 17 and off-road multi-use trails where possible (e.g. the Sault Ste. Marie Hub Trail). The focus will be on selecting paved facilities but some may be gravel. The Study will also consider the future development of feeder trails along the North Channel to increase tourism and enhance quality of life.

Route created in GIS by MMM Group.

ROUTE SELECTION CRITERIA

- Developed based on criteria developed for MTO to inform provincial scale cycle touring network route development
- Considered during field investigations (by bike and car) of proposed route and options

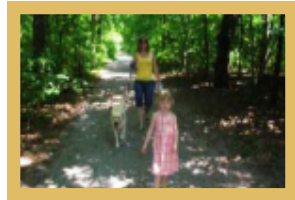
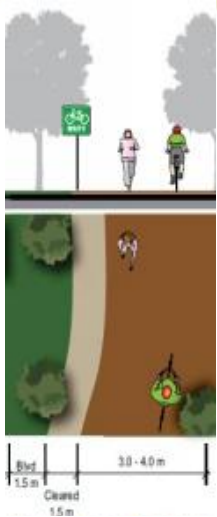


POTENTIAL FACILITY TYPES

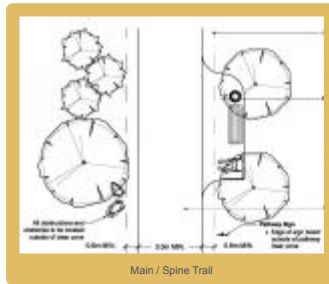
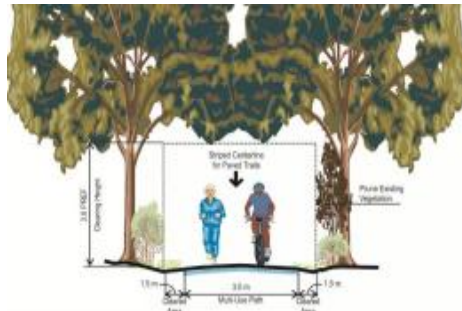
Sault Ste. Marie

Sudbury

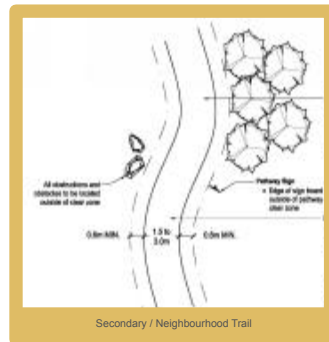
Off-Road Multi-use Trail



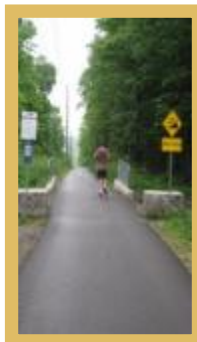
Multi-use Trail (Main / Spine Trail & Secondary / Neighbourhood Trail)



Main / Spine Trail



Secondary / Neighbourhood Trail



Shared Use AT Path



Bike Lanes



POTENTIAL FACILITY TYPES CONT'D

Sault Ste. Marie

Sudbury



Paved Shoulder

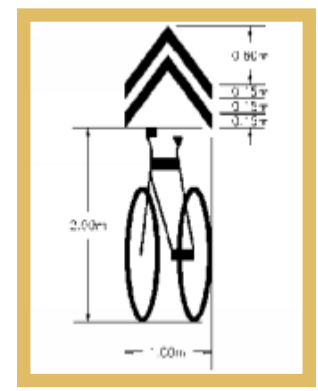
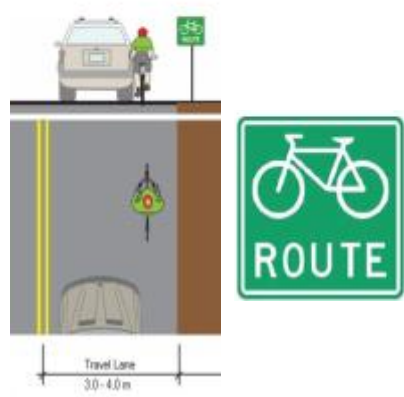
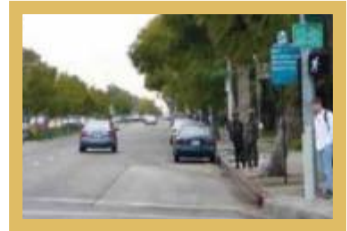
Signed-Only Cycling Routes on Wide Outside / Curb Lane

Signed-Only Cycling Route on Local Roads

Sharrows



Painted buffer where motor vehicle speed and/or volume are high.

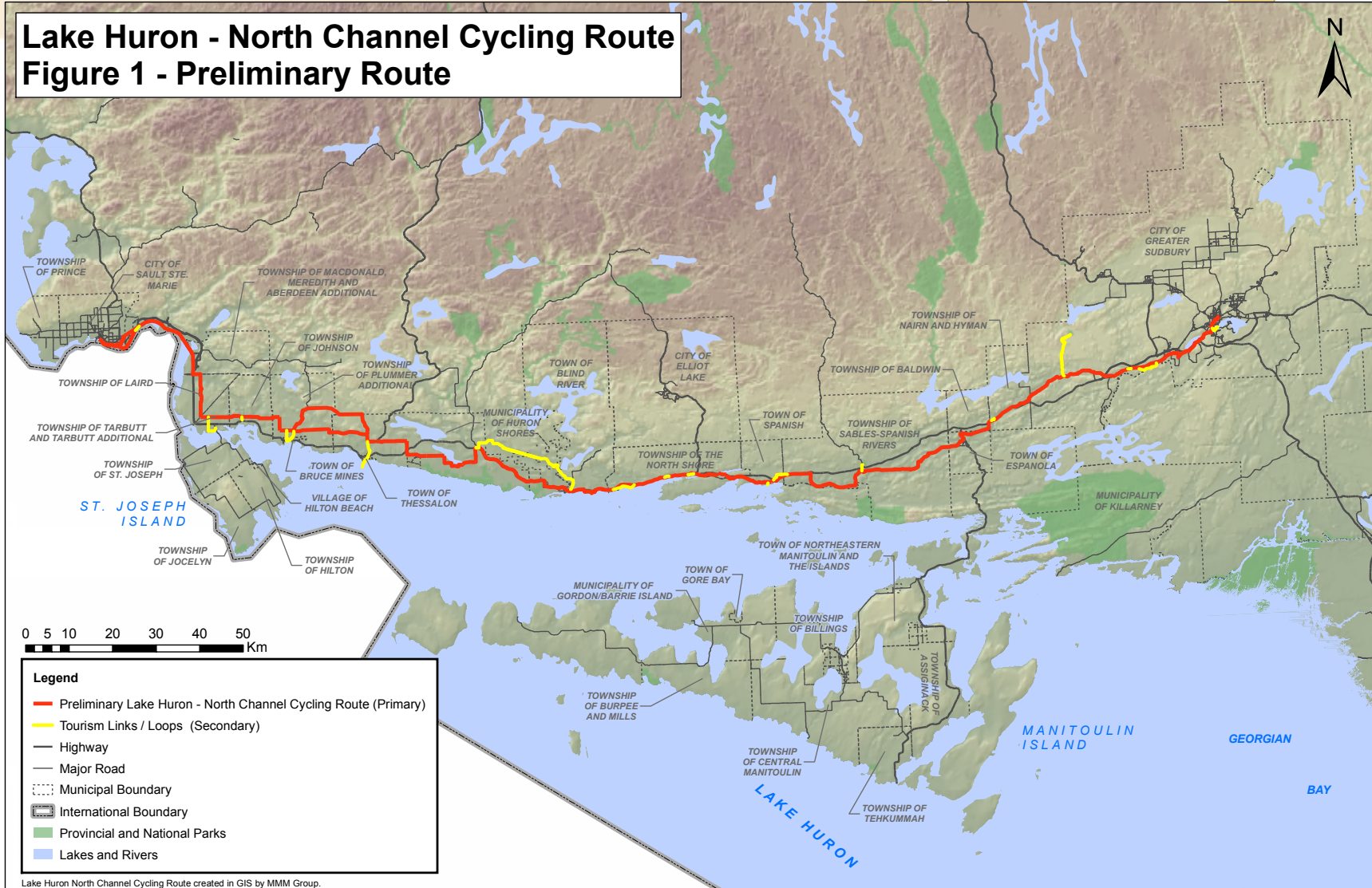


DRAFT NETWORK UNDER REVIEW

Sault Ste. Marie

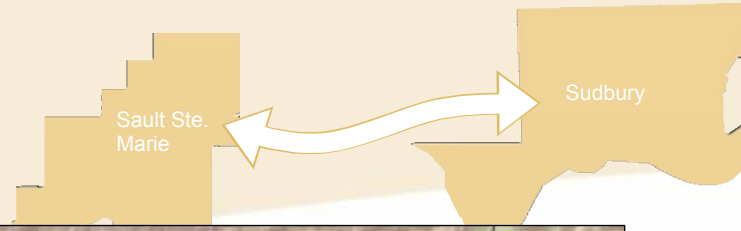
Sudbury

**Lake Huron - North Channel Cycling Route
Figure 1 - Preliminary Route**



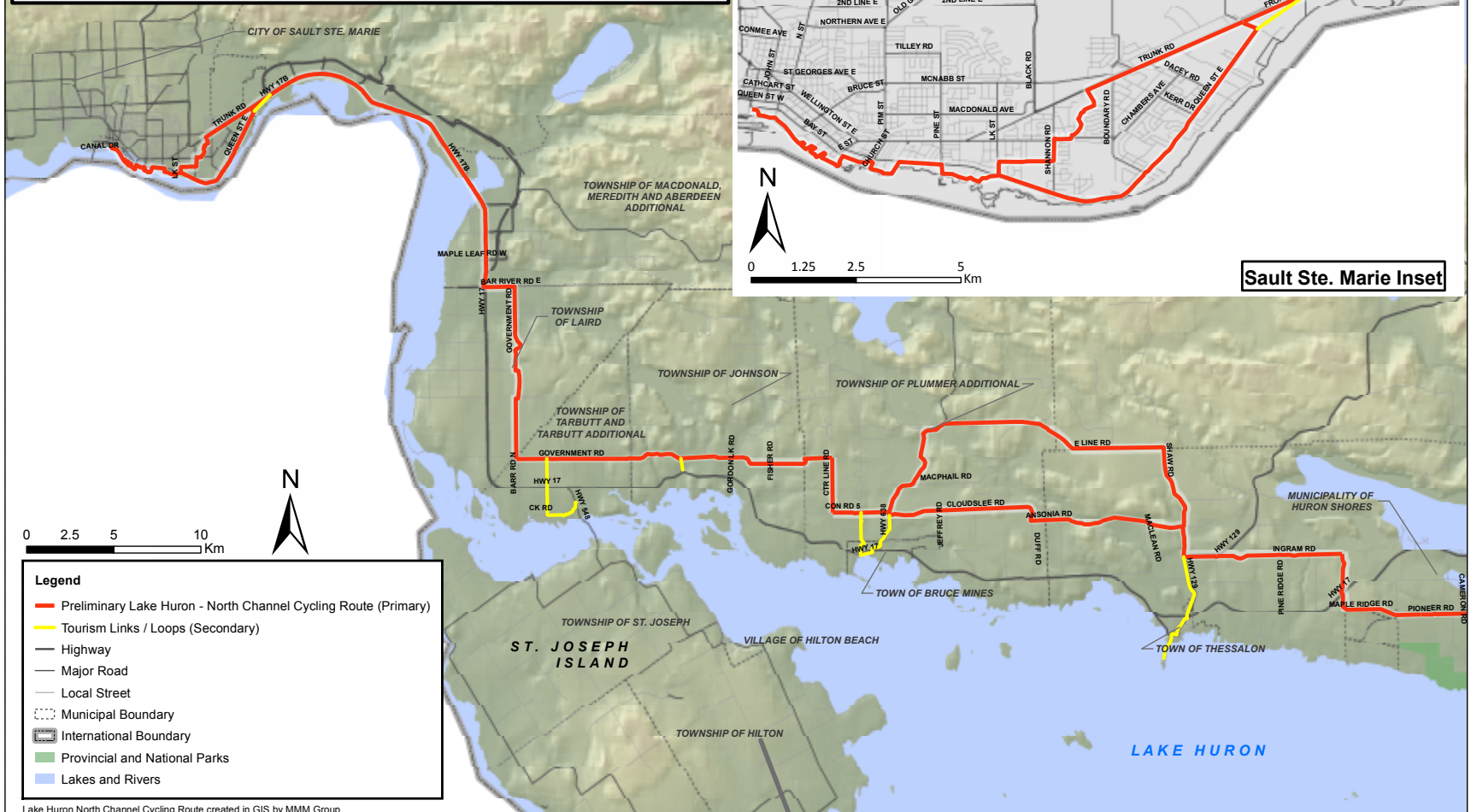
Lake Huron North Channel Cycling Route created in GIS by MMM Group.

DRAFT NETWORK UNDER REVIEW



Lake Huron - North Channel Cycling Route Figure 2 - Preliminary Route

Sault Ste. Marie to Huron Shores

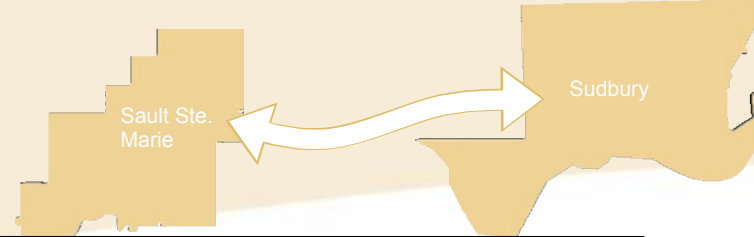


Legend

- Preliminary Lake Huron - North Channel Cycling Route (Primary)
- Tourism Links / Loops (Secondary)
- Highway
- Major Road
- Local Street
- Municipal Boundary
- International Boundary
- Provincial and National Parks
- Lakes and Rivers

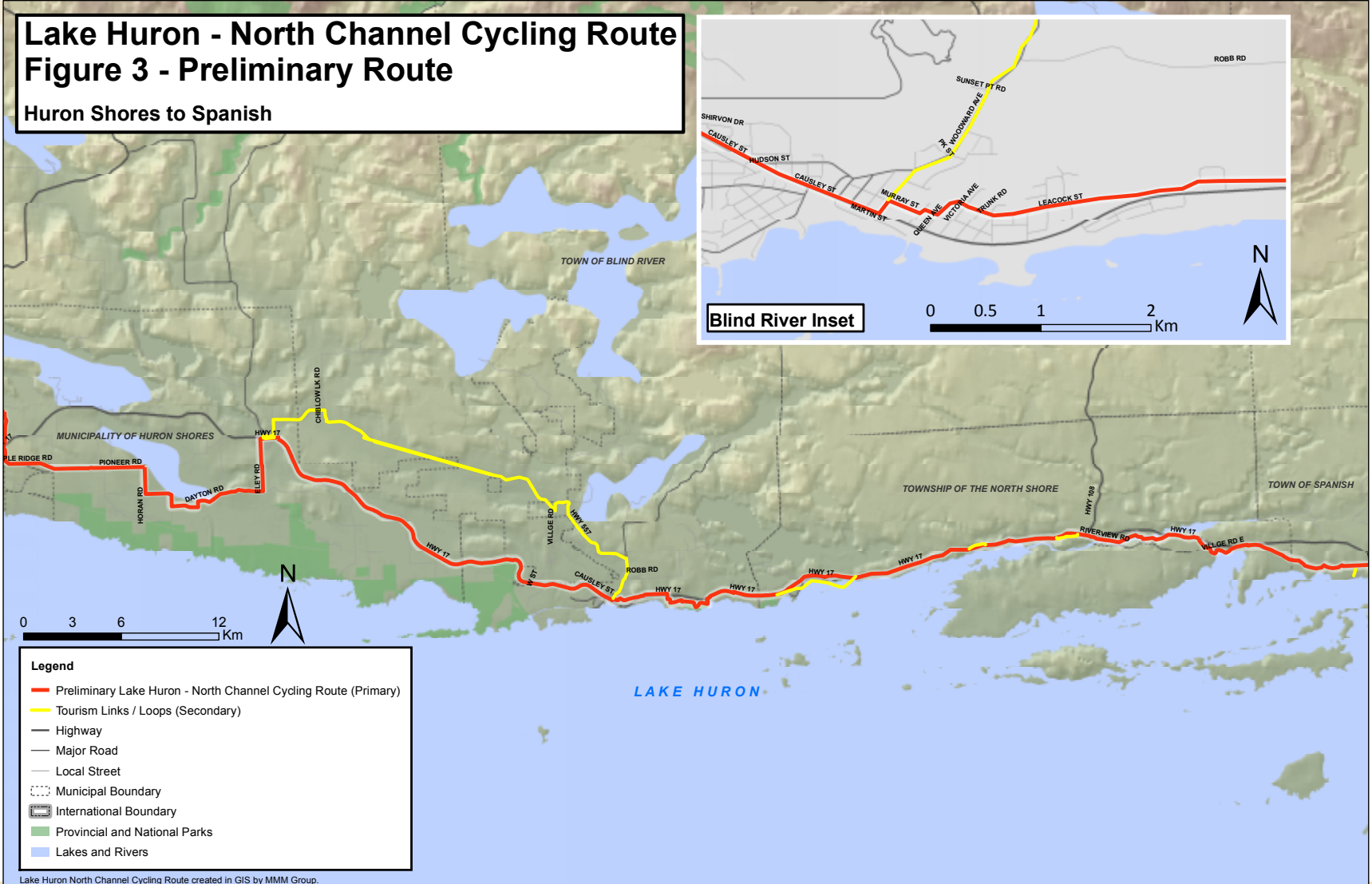
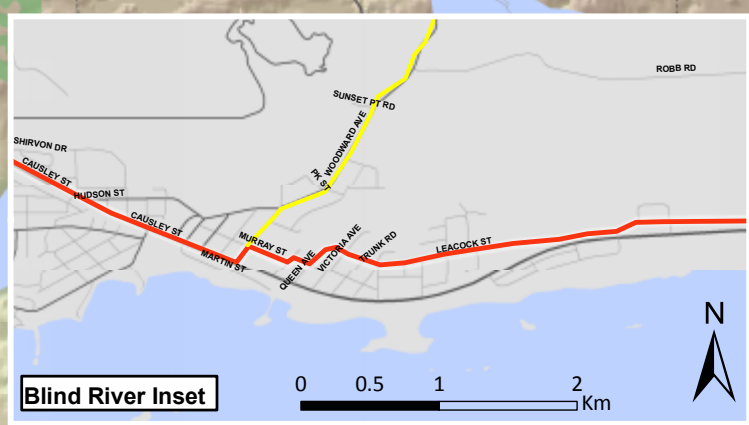
Lake Huron North Channel Cycling Route created in GIS by MMM Group.

DRAFT NETWORK UNDER REVIEW



Lake Huron - North Channel Cycling Route Figure 3 - Preliminary Route

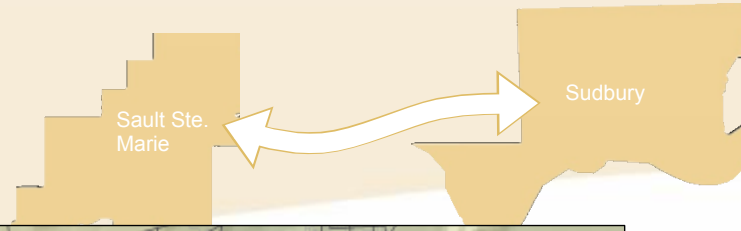
Huron Shores to Spanish



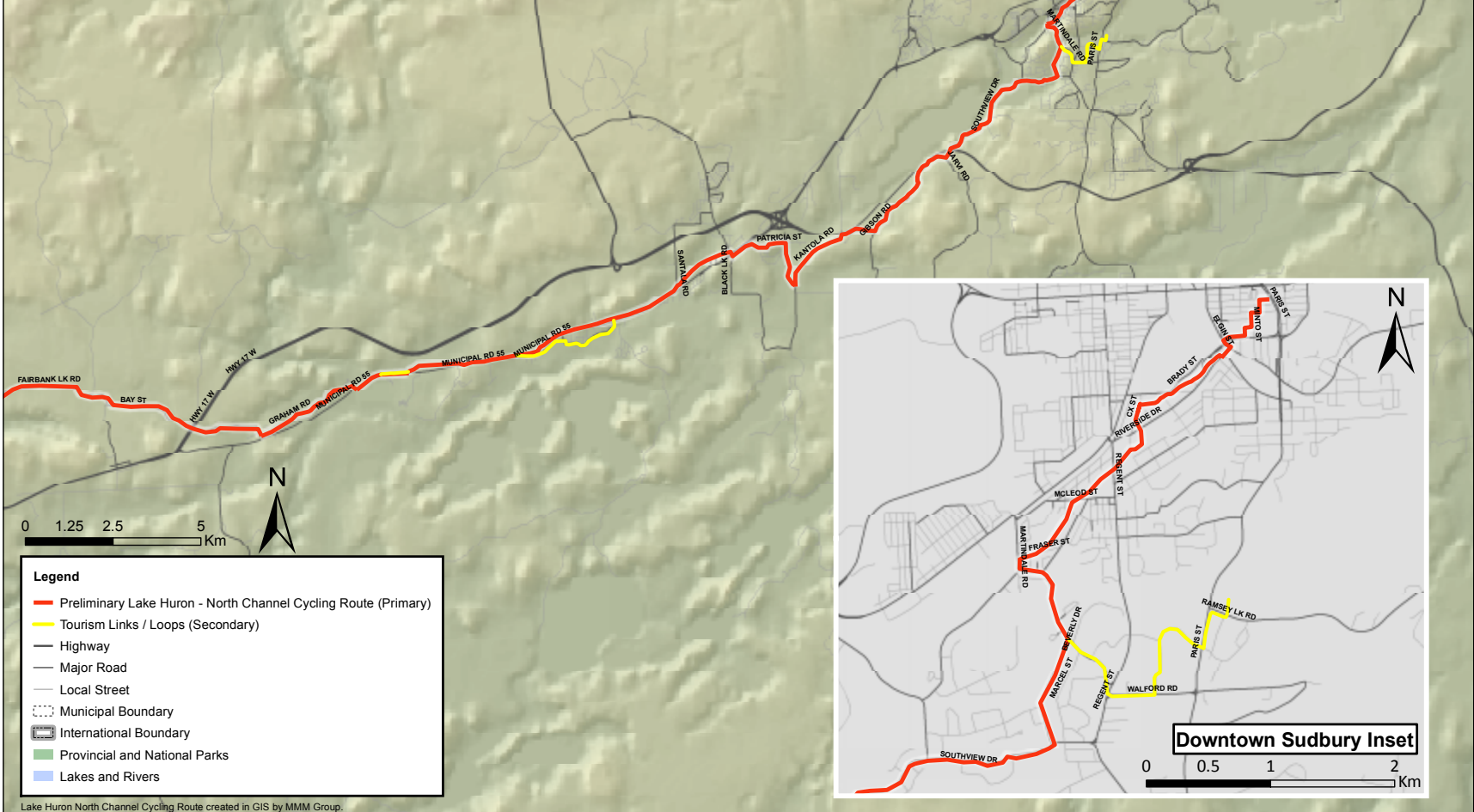
- Legend**
- Preliminary Lake Huron - North Channel Cycling Route (Primary)
 - Tourism Links / Loops (Secondary)
 - Highway
 - Major Road
 - Local Street
 - Municipal Boundary
 - International Boundary
 - Provincial and National Parks
 - Lakes and Rivers

Lake Huron North Channel Cycling Route created in GIS by MMM Group.

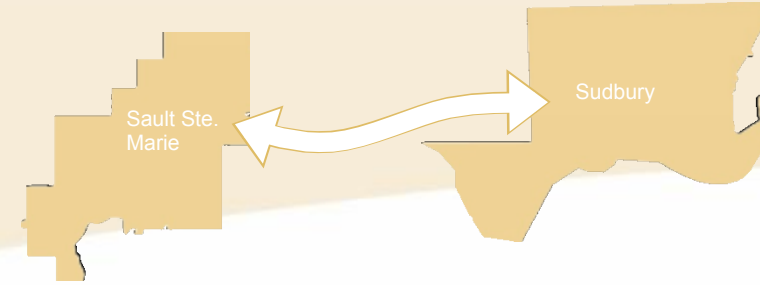
DRAFT NETWORK UNDER REVIEW



Lake Huron - North Channel Cycling Route
Figure 5 - Preliminary Route
 Greater Sudbury



INVESTIGATION RESULTS



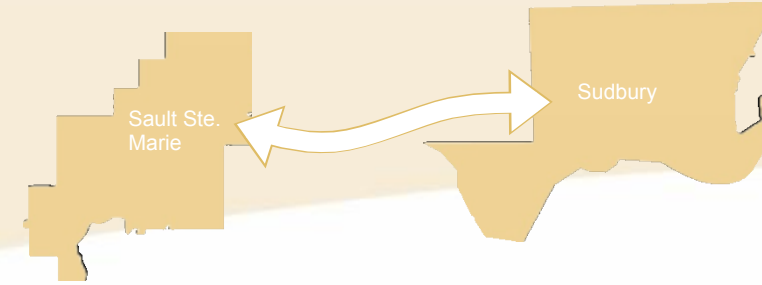
Highlights

- Scenic & attractive
- Topography
- Demonstrates existing & future demand
- Consistency with local tourism & strategies
- Links significant destinations & attractions
- Connects significant population centres
- Accesses services & accommodations
- Best use of existing cycling & trail infrastructure

Imperfections

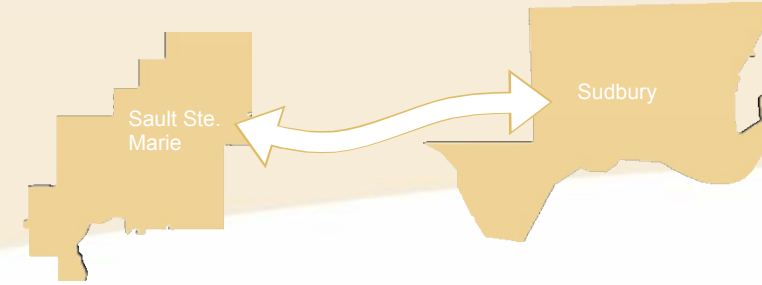
- Perception of safety & security (Hwy 17)
- Motor vehicle traffic volumes (Hwy 17)
- Truck & commercial vehicle traffic (Hwy 17)
- Crosses major physical barriers – Spanish River
- Appropriateness of facility type

PERFORMANCE MEASURES



- Number of kilometres of built cycling infrastructure / signed route
- Number of visitors on average per year who use the Lake Huron North Channel Cycle Route
- Estimate of tourism dollars locally spent associated with visitors who cycle part or all of the route
- Number of tourism business participating in the [“Welcome Cyclists”](#) Program
- Level of satisfaction of visitors regarding their experience on the route

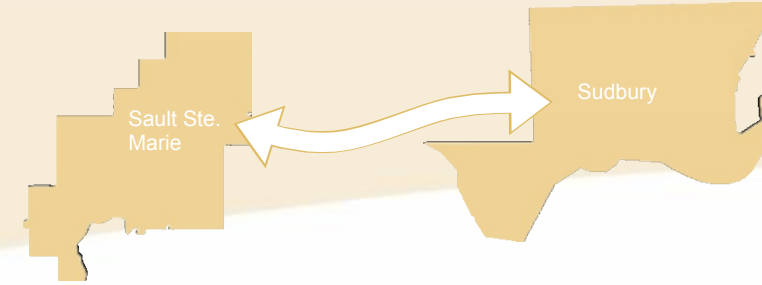
QUESTIONS – ABOUT THE CONCEPT



Using “Post-It” notes, **one** comment or question per note

- What do you like? (**green**)
- What don't you like/ have concerns about? (**red**)
- Questions that still need to be answered? (**yellow**)

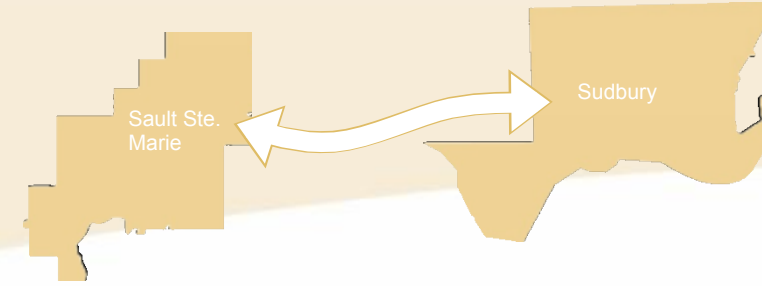
QUESTIONS – ABOUT THE PROPOSED ROUTE



On the maps, highlight, mark or write

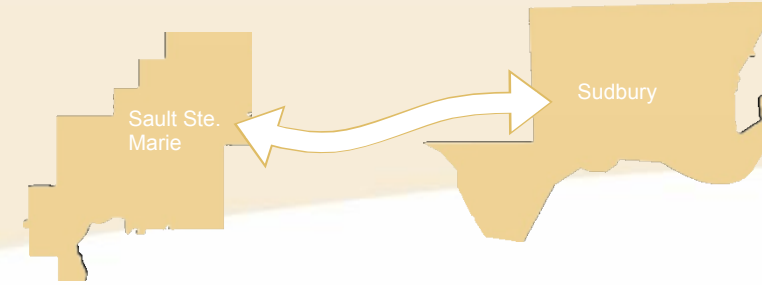
- What do you like?
- What don't you like/have concerns about?
- Are there other alternatives, options?

QUESTION – ABOUT MARKETING & MANAGEMENT



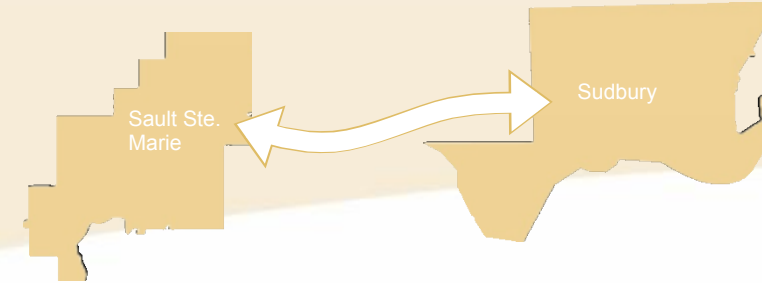
- What needs to be done to implement and operate the route?

NEXT STEPS



- Review Public and Local Stakeholder Input;
- Confirm the Route Alignment;
- Identify and Document a Route Monitoring System;
- Develop a Business, Marketing and Implementation Plan;
- Identify Cost Estimate for Infrastructure Improvements;
- Recommend an Implementation/Phasing Strategy; and
- Document the Study and Recommendations for Next Steps.

NEXT STEPS



WE WANT YOUR FEEDBACK!

Complete the study questionnaire:
https://research.net/s/Lake_Huron_Trail

Attend the study Stakeholder Sessions
(scheduled for end of the June 2012)

Visit the Tourism Sault Ste. Marie Webpage for
study updates and dates, times and locations for
the public information centre:
<http://www.saulttourism.com>; or

Contact representatives from the study team with
any questions or to provide your comments. See
contact information beside.

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E: lerrington@ssmedc.ca

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T: 905-882-1100 ext. 6520
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D'Arcy McKittrick, Partner
the Tourism Company, 1968 Mapleridge Drive
Peterborough, ON, K9K 2E4
T: 705-772-8425
E: darcy@tourismco.com

Lake Huron Bike Route

ALGOMA COUNTRY- CONTACT INFORMATION

TYPE	NAME	CONTACT	ADDRESS	EMAIL	PHONE NUMBER
Accommodation	Auberge Eldo Inn	Kimmi & Deepi Sandhu			
Accommodation	MacIver's Mississauga Motel & Camp Ltd.	Wayne MacIver			
Accommodation	North Shore Wayside Inn	Dennis & Janet Lunn			
Accommodation	Old Mill Motel	Naresh Mohan			
Accommodation	Lakeview Inn	Joe Shaw			
Accommodation	A Taste of Home B&B	Cookie McWilliam			
Accommodation	Sunset on the River	Olivia Jane & Mark Daub			
Accommodation/Restaurant	Bavarian Inn & Restaurant	Karen Bandwait			
Accommodation	Mystic Sky Retread B&B	Steve & Glad			
Accommodation	Sunset & Silence B&B	Carol R. Amadio			
Accommodation	Surf Side B&B	Marjorie Deruyte			
Accommodation	Iron Bridge Motel	William or Francis Burns			
Accommodation	Red Top Motor Inn	Greg Brown			
Accommodation/Restaurant	The Village Inn Motel & Restaurant	Manager			
Accommodation	Vance's Motor Inn	Jim or Tina Vance			
Accommodation	Le Bel Arbi B&B	Carmen Cotnoir			
Accommodation	Hilton Beach Inn Motel Rooms & Suites	Natalie Allard			
Accommodation	Carolyn Beach Motor Inn	Andrew Weigel			
Accommodation	Goode Knight B&B	Keith Hoback			
Accommodation	Mountain View B&B	E. Jane Mundy			
Accommodation	North Shore B&B	Ruth Brenner			

Lake Huron North Channel Cycling Route***RAINBOW COUNTRY - CONTACT INFORMATION***

TYPE	NAME	CONTACT	ADDRESS	EMAIL	PHONE NUMBER
Accommodation/Resort	East Bull Wilderness Resort	Gerry & Paulette Vautour			
Accommodation	Lauzon Aviation	Reino & Rita Makela			
Accommodation	Massey Motel	Raymond & Nadia Carriere			
Tourism Council	North Channel Marine Tourism Council	Mary Bray			
Attraction	North to Adventure	Debbie Johnston			
Attraction	St. Joseph's Island Museum	Patricia Fleming			
Municipality	Town of Espanola	Cynthia Townsend			
Municipality	Town of Spanish	Brent St. Denis			
Accommodation	Waterfalls Lodge	Rob Murphy			

Lake Huron North Channel Cycling Route

FIRST NATIONS - CONTACT INFORMATION -SSM to SUDBURY

BAND	NAME	ADDRESS	EMAIL	PHONE NUMBER	FAX NUMBER
Garden River First Nation	Chief Lyle Sayers				
Batchewana First Nation	Chief Dean Sayers				
Thessalon First Nation	Chief Alfred Bisailon				
Mississauga First Nation	Chief Douglas Daybutch				
Serpen River First Nation	Chief Isadore Day				
Sagamok Anishnawbek First Nation	Chief Paul Eshkakogan				
Whitefish Lake First Nation	Chief Edward (Steve) Miller				
Northshore Tribal Council	Alan Ozawnimki - CEO				

Lake Huron North Channel Cycling Route

SAULT STE. MARIE - CONTACT INFORMATION

TYPE	NAME	CONTACT	ADDRESS	EMAIL	PHONE NUMBER
Attraction	Agawa Canyon Tour Train	Michael Morrow			
Attraction	Searchmont Resort	Dan Missere			
Business - Retail	Station Mall	Maureen Webb			
Attraction	OLG SSM Charity Casino	Rob Santa Maria			
Attraction - Museum	Canadian Bushplane Heritage Centre	Mike Delfre			
Accommodation	Great Northern Hotel & Conference Centre	Tricia Ruscio			
Accommodation	Days Inn SSM	David Cartmill			
Accommodation	Delta SSM Waterfront	Kevin Wyer			
Accommodation	Sleep Inn	David Hornstein			
Accommodation	Comfort Inn	Marilynn Reed			
Accommodation	Algoma's Water Tower Inn	Donna Hilsinger			
Accommodation	Bay Front Quality Inn	Shane Reinhart			
Accommodation	Travelodge	Domenic Ruscio			
Accommodation	Ambassador Motel	Robyn Istace			
Accommodation	Catalina Motel	Dean Anderson			
Accommodation	Holiday Motel	Terry Wurderman			
Accommodation	Glenview Cottages	Collen Powshick			
Accommodation	Super 8 Motel	Kyle Schnider			
Business - College	Sault College	Bill Durnford			
Business - Bank	Community First Credit Union	Greg Peres			
Municipal	Tourism SSM	Lindsey Errington			
Accommodation	Fairfield Inn & Suites	Melissa Parr			
Accommodation	Skyline Motel / Satellite Motel	Nilay Patel			
Attraction	Art Gallery of Algoma	Jasmina			
Attraction	SSM Museum	Kim Forbs			
Attraction	SSM Canal	Pamela Jalak			

Lake Huron North Channel Cycling Route

SAULT STE. MARIE - CONTACT INFORMATION

TYPE	NAME	CONTACT	ADDRESS	EMAIL	PHONE NUMBER
Attraction	Ontario Tourist Info Centre	Angela Romano			
Business - Tourism	Algoma Kinniwabi Travel Association	Carol Caputo			

Lake Huron North Channel Cycling Route

SUDBURY - CONTACT INFORMATION

TYPE	NAME	CONTACT	EMAIL	PHONE NUMBER
Government	NMNDM	Gillian Schultze		
Government	FedNor	Lynn Bonany		
Business	Sudbury Cyclists Union	Rachelle Niemela		
Business	Rainbow Routes Trails Association	Deb McIntosh		
Municipal	City of Sudbury	Chris Gore Manager of Community Volunteers & Community Development		
Business - Retail	The Outside Store	A. Longarini Manager		
Business - Retail	Pinnavle Sports	Manager		
Business - Adventure/Retail	Ramakko's Outdoor Adventure Store	Manager		

**LAKE HURON NORTH CHANNEL CYCLING ROUTE
CONTACT LIST:
MUNICIPALITIES & FIRST NATIONS**

<p><u>The Corporation of the City of Sault Ste Marie</u> 99 Foster Drive, P.O. Box 580 Sault Ste Marie, Ontario P6A 5N1 705-759-2500 Mayor: Debbie Amoroso</p>	<p><u>Laird Township</u> 3 Pumpkin Point Road RR#4 Echo Bay, Ontario P0S 1C0 705-248-2395 Fax 705-248-1138 Mayor: Richard Beitz</p>
<p><u>Garden River First Nation</u> 7 Shingwauk Street Garden River, Ontario P6A 5K9 705-946-6300 Fax 705-945-1415 E-mail: info@gardenriver.org Chief: Lyle Sayers</p>	<p><u>Tarbutt Township</u> 27 Barr Road South Desbarats, Ontario P0R 1C0 705-782-6776 Fax 705-782-4274 E-mail: tarbutttownship@bellnet.ca Mayor: Ken Ritchie 705-782-4386</p>
<p><u>Township of MacDonald, Meredith and Aberdeen</u> Additional 208 Church Street, P.O. Box 10 Echo Bay, Ontario P0S 1C0 705-248-2441 E-mail: twpmacd@onlink.net Head of Council: Mr Lynn Watson</p>	<p><u>Town of Bruce Mines</u> 9180 Hwy 17 East, P.O. Box 220 Bruce Mines, Ontario P0R 1C0 705-785-3493 Fax 705-785-3170 E-mail: brucemines@bellnet.ca Mayor: Darren Foster</p>
<p><u>Township of Plummer Additional</u> 705-785-3479 E-mail: plumtwsp@onlink.net</p>	<p><u>The Corporation Township of Johnson</u> 705-782-6601 E-mail: johnsontwp@bellnet.ca</p>
<p><u>The Corporation of the Town of Thessalon</u> P.O. Box 220 187 Main Street Thessalon, Ontario P0R 1L0 705-842-2217 Fax: 705-842-2572 E-mail: townthess@bellnet.ca</p>	<p><u>Thessalon First Nation</u> RR#2, Box 9 Thessalon, Ontario P0R 1L0 705-842-2323 Fax: 705-842-2332 Chief: James Wabigwan</p>
<p><u>Municipality of Huron Shores</u> 7 Bridge Street, P.O. Box 460 Ironbridge, Ontario P0R 1H0 705-843-2033 Fax: 705-843-2035 E-mail: email@huronshores.ca Mayor: E.W. Linley</p>	<p><u>Mississagi First Nation</u> P.O. Box 1299 Blind River, Ontario P0R 1B0 64 Ball Park Road 705-356-1621 Fax: 705-356-1740</p>
<p><u>Town of Blind River</u> 11 Hudson Street Blind River, Ontario P0R 1B0 705-356-2251 Fax: 705-356-7343 E-mail: Use form on website Mayor: Sue Jensen</p>	<p><u>Township of the North Shore</u> P.O. Box 108, 1385 Hwy 17 Algoma Mills, Ontario P0R 1A0 705-849-2213 or 705-461-1821 Fax: 705-849-2428 E-mail: twpns@ontera.net</p>

<p><u>Town of Spanish</u> 8 Trunk Road Spanish, Ontario P0P 2A0 705-844-2300 E-mail: info@town.spanish.on.ca Mayor: Gary Bishop</p>	<p><u>Township of Sables - Spanish Rivers</u> Box 5, Site 1, RR#3 11 Birch Lake Road Massey, Ontario P0P 1P0 705-865-2646 Fax: 705-865-2736 E-mail: inquiries@sables-spanish.ca Mayor: Leslie Gamble</p>
<p><u>Town of Espanola</u> 100 Tudhope Street, Suite 2 Espanola, Ontario P5E 1S6 705-869-1540 Fax: 705-869-0083 E-mail: town@town.espanola.on.ca Mayor: Mike Lehoux</p>	<p><u>Township of Nairn and Hyman</u> 64 McIntyre Street Nairn Centre, Ontario P0M 2L0 705-869-4232 E-mail: information@nairncentre.ca Mayor: Brian Channon</p>
<p><u>Greater Sudbury</u> P.O. Box 5000, Stn 'A' 200 Brady Street Sudbury, Ontario P3A 5P3 705-671-2489 E-mail: mayor@greatersudbury.ca</p>	<p><u>Michael A Brown (Algoma - Manitoulin)</u> Ministry of Northern Development, Mines and Forestry Room 5501, 5th Floor Whitney Block 99 Wellesley Street East Toronto, Ontario M7A 1W3 416-325-3601 Fax: 416-325-3713 E-mail: mbrown.mpp.co@liberal.ola.org</p>
<p><u>David Oraziotti (Sault Ste Marie)</u> Ministry of Natural Resources Suite 6522, 6th Floor, Whitney Block 90 Wellesley Street East Toronto, Ontario M7A 1W3 416-314-6467 Fax: 416-314-6470 E-mail: doraziotti.mpp.co@liberal.ola.org</p>	<p><u>France Gélinas (Nickel Belt)</u> Room 159, Main Legislative Building Queen's Park Toronto, Ontario M7A 1A5 416-325-9203 Fax: 416-325-9185 E-mail: fgelinas-qp@ndp.on.ca</p>
<p><u>Rick Bartolucci (Sudbury)</u> Ministry of Municipal Affairs and Housing 17th Floor, 777 Bay Street Toronto, Ontario M5G 2E5 416-585-7000 Fax: 416-585-6470 E-mail: rbartolucci.mpp.co@liberal.ola.org</p>	<p><u>Minister of Transportation</u> Hon Kathleen O. Wynne (Don Valley) Ministry of Transportation 3rd Floor, Ferguson Block 77 Wellesley Street West Toronto, Ontario M7A 1Z8 416-327-9200 Fax: 416-327-9188 E-mail: kwynne.mpp@liberal.ola.org</p>
<p><u>Township of Baldwin</u> 11 Spooner Street P.O. Box 7095 McKerrow, Ontario P0P 1M0 705-869-0225 e-mail joanseidel@townshipofbaldwin.ca</p>	<p><u>Rainbow Routes</u> P.O. Box 5000, Stn A Sudbury, ON P3A 5P3 705-674-4455 Fax 705-671-6767 e-mail rainbowroutes@sudbury.ca</p>



Sault Ste.
Marie

Sudbury

LAKE HURON

NORTH CHANNEL CYCLING ROUTE STUDY

APPENDIX B

ASSESSMENT OF PROPOSED ROUTES



LAKE HURON

NORTH CHANNEL CYCLING ROUTE STUDY

APPENDIX B – Assessment of Proposed Routes by Segment

Please note that routes segments were assessed using the following scoring system:

- 3 = Meets or exceeds criteria
- 2 = Meets some of the criteria
- 1 = Does not meet most of the criteria
- 0 = Does not meet any of the criteria

Table B-1: Assessment of Proposed Route

Table B-1: Assessment of Proposed Route		
Route Description:	Gros Cap to Sault Ste. Marie – 24.7km	
Route Selection Criteria	Score	Justification / Rationale
Scenic & Attractive	22	Lowland forests, remote dense bush, wildlife habitat; few vistas & views, visual points of interest, photo opportunities or significant cultural/historical landscapes; stopping/rest areas in Sault Ste. Marie
Demonstrates Existing and / or Future Demand	3	Connects to the Hub Trail, expected to be used by local and visiting cyclists, provides connections to several local destinations including schools and community centres
Perception of Safety & Security	2	Signed cycling routes and multi-use trails through much of the urban area of the city, shared busy secondary road , a portion of which currently includes a paved shoulder, with future paving of the shoulders recommended for the remaining portion in Prince Township
Level of Comfort	3	Paved shoulder / signed route (7.8km); signed route on paved streets in urban area (13.7km); off road multi-use trail (3.3km)
Topography	3	Generally flat, minimal grades
Consistent with Local Tourism Strategies & Goals	3	Strong support from Tourism Sault Ste. Marie and City Staff, and provides direct connections to the Hub Trail which is a key focal point in the City's trail and cycling system
Links Significant Destinations &	2	Gros Cap, Fort Creek Conservation Area

Table B-1: Assessment of Proposed Route

Table B-1: Assessment of Proposed Route		
Route Description:	Gros Cap to Sault Ste. Marie – 24.7km	
Route Selection Criteria	Score	Justification / Rationale
Attractions		
Connects Significant Population Centres	3	City of Sault Ste. Marie
Accesses Services & Accommodations	3	Accommodation, restaurants, retail, travel information, bicycle shops, emergency health care
Provides Intermodal Links	2	Air, bus
Easy to Follow	2	Lacks signs, route map
Crosses Major Physical Barrier(s)	N/A	No major physical barriers to cross
Meets User Needs	2	Lacks designated staging & parking areas
Motor Vehicle Traffic Volumes	2	Many sections generally less than 5000v.p.d. however some sections as high as 30,000v.p.d. (Great Northern Road). Note, where volumes are very high along urban arterials the recommended facility type is a multi-use pathway in the boulevard on one side of the road and road crossings are intended to be at signalized intersections
Motor Vehicle Operating Speeds	3	70 – 90 km/h in rural areas, 40-50km/hr along residential streets in the urban area
Truck & Commercial Vehicle Traffic	1.5	Data not available, however note that the section heading west along 2 nd Ave from Goulais Avenue is a main delivery route to the Sault Ste, Marie Airport
Sightlines	3	No significant issues
Emergency Access	3	Not aware of any significant issues
Collision History	Unknown	data not readily available
Makes the Best Use of Existing Cycling & Trail Infrastructure	3	Connect to Hub Trail in 2 locations, one in the north east part of the city and one in the northwest.
Appropriateness of Facility Types	2.5	Requires designation and signing as shared roadway (21.5km)
Local Commitment	2.5	Strong local support for this route would require commitment from Prince Township for the western portion of the route. Would benefit from Welcome Cyclist accreditation for businesses

Table B-2: Assessment of Proposed Route

Table B-2: Assessment of Proposed Route		
Route Description:	Sault Ste. Marie, Old River Garden Rd to Great Northern Rd – 8.8km	
Route Selection Criteria	Score	Justification / Rationale
Scenic & Attractive	2.5	Lowland forests, remote dense bush, wildlife habitat; few vistas & views, visual points of interest, photo opportunities or significant cultural/historical landscapes; stopping/rest areas in Sault Ste. Marie
Demonstrates Existing and / or Future Demand	3	Connects to Hub Trail, provides access to trails at Hiawatha Highlands a popular destination for off-road cycling, connects to Highway 17 north of the city, which is the only connection to points west (e.g. Thunder Bay, Kenora etc.)
Perception of Safety & Security	2	Shared roads with minimal, undesignated or signed, cycle facilities
Level of Comfort	3	2.1km of existing paved shoulder with partial/intermittent paved shoulders for the remaining 6.7km (full paved shoulders are recommended for this section)
Topography	2	Generally flat in the urban area, becomes more hilly towards the northern limits of this route segment
Consistent with Local Tourism Strategies & Goals	3	Support from Tourism Sault Ste. Marie
Links Significant Destinations & Attractions	2	Hiawatha Highlands
Accesses Services & Accommodations	3	Accommodation, restaurants, retail, travel information, bicycle shops, emergency health care
Provides Intermodal Links	2	Bus
Easy to Follow	2	Lacks signs, route map
Crosses Major Physical Barrier(s)	N/A	No major physical barriers to cross
Meets User Needs	2.5	Staging & parking areas in Hiawatha Highlands Conservation Area
Motor Vehicle Traffic Volumes	2	As high as 5000v.p.d in section between Terrance Avenue and 3 rd Line East, volume decreases as one travels north (under 2000v.p.d north of 4 th Line East
Motor Vehicle Operating Speeds	2	May exceed 80km/hour in some sections
Truck & Commercial Vehicle Traffic	2	Data not available although anecdotal information suggests that some commercial vehicles use this route rather than Great

Table B-2: Assessment of Proposed Route

Table B-2: Assessment of Proposed Route		
Route Description:	Sault Ste. Marie, Old River Garden Rd to Great Northern Rd – 8.8km	
Route Selection Criteria	Score	Justification / Rationale
		Northern Road to bypass the main urban part of the city
Sightlines	1.5	Sightlines are compromised in some sections, particularly north of 5 th Line East where area becomes hilly and road narrows
Emergency Access	3	No known issues
Collision History	Unknown	Data not readily available
Makes the Best Use of Existing Cycling & Trail Infrastructure	3	Existing paved shoulders from Terrance Avenue to 3 rd line east, partial paved shoulders from 3 rd line east to 5 th line east.
Appropriateness of Facility Types	2.5	Requires paving of road shoulders where currently narrow on non-existent.
Local Commitment	2.5	Strong local support for this route. Would benefit from Welcome Cyclist accreditation for businesses

Table B-3: Assessment of Proposed Route

Table B-3: Assessment of Proposed Route		
Route Description:	Roberta Bondar Pavilion to Highway 17B - Hub Trail, Trunk Road – 14.7 km	
Route Selection Criteria	Score	Justification / Rationale
Scenic & Attractive	3	St. Mary's River/Sault Ste. Marie waterfront, residential areas, commercial districts; many vistas & views, visual points of interest, photo opportunities and significant cultural/historical landscapes; many stopping/rest areas along waterfront
Demonstrates Existing and / or Future Demand	3	Popular route for cyclists heading from the core area of the city to points east. Included as a route in the City's Cycling Master Plan
Perception of Safety & Security	2.5	Shared streets with minimal, undesignated or signed cycle facilities
Level of Comfort	3	Paved streets 4.9km, off road cycle path (3.6km)
Topography	3	Generally flat, minimal grades
Consistent with Local Tourism Strategies & Goals	3	Strong support from Tourism Sault Ste. Marie

Table B-3: Assessment of Proposed Route

Table B-3: Assessment of Proposed Route		
Route Description:	Roberta Bondar Pavilion to Highway 17B - Hub Trail, Trunk Road – 14.7 km	
Route Selection Criteria	Score	Justification / Rationale
Links Significant Destinations & Attractions	3	Sault. Ste. Marie waterfront, events, attractions (Agawa Canyon Tour Train, Canadian Bush Plane Heritage Centre, Parks Canada Sault Ste. Marie Canal, Museum Ship Norgoma, Roberta Bondar Marina, Waterfront Boardwalk, Art Gallery of Algoma, Ermatinger-Clergue National Historic Site), accommodation, restaurants, commercial districts
Connects Significant Population Centres	3	City of Sault Ste. Marie, provides link to international border crossing to Sault Ste. Marie USA
Accesses Services & Accommodations	3	Accommodation, restaurants, retail, travel information, bicycle shops, emergency health care etc.
Provides Intermodal Links	2	Bus
Easy to Follow	2.5	Direct route, however lacks signs, route map
Crosses Major Physical Barrier(s)	N/A	No major physical barriers to cross
Meets User Needs	2	Staging and parking areas available in some of the parks along the waterfront as route approaches downtown area
Motor Vehicle Traffic Volumes	2.5	Data not available. Note that Trunk Road , running roughly parallel to Queen Street carries the majority of truck and vehicle traffic heading east out of the city
Motor Vehicle Operating Speeds	3	Generally expected to be less than 60km/hr.
Truck & Commercial Vehicle Traffic	2.5	Data not available. Note that Trunk Road , running roughly parallel to Queen Street carries the majority of truck and vehicle traffic heading east out of the city
Sightlines	3	No issues
Emergency Access	3	No issues
Collision History	Unknown	Data not readily available
Makes the Best Use of Existing Cycling & Trail Infrastructure	3	Existing paved shoulders on Queen Street between Dacey Road and Boundary Road. Partial paved shoulders between Dacey Road and Fournier Road
Appropriateness of Facility Types	2.5	Requires on-road paved shoulder on some sections of Queen Street, and bicycle lane on section east of Boundary Road. Note this could be achieved by reallocating lane widths and repainting lane markings. A portion of this route is currently being examined by the city for reduction of the 4 lane cross section to 3 lanes with bicycle lanes (as part of a separate study)

Table B-3: Assessment of Proposed Route

Route Description:	Roberta Bondar Pavilion to Highway 17B - Hub Trail, Trunk Road – 14.7 km	
Route Selection Criteria	Score	Justification / Rationale
Local Commitment	3	Strong local commitment, would benefit from Welcome Cyclist accreditation for businesses
Benefits vs. Investment Cost	Unknown	Data not readily available
Operation & Maintenance	3	No issues

Table B-4: Assessment of Proposed Route

Route Description:	Highway 17B to Echo Bay – Highway 17b – 16 km	
Route Selection Criteria	Score	Justification / Rationale
Scenic & Attractive	2.5	St. Mary's River, Garden River First Nation Reserve, built up rural area; some vistas & views, visual points of interest, photo opportunities and significant cultural/historical landscapes; some stopping/rest areas – Garden River commercial area, Ojibway Park, Echo Bay commercial area
Demonstrates Existing and / or Future Demand	3	Currently used by local and visiting cyclists
Perception of Safety & Security	2	Shared busy secondary road with minimal, undesignated or signed, cycle facility
Level of Comfort	2.5	Paved secondary road (16km)
Topography	3	Generally flat, minimal grades
Consistent with Local Tourism Strategies & Goals	2	Not formally designated as a tourist cycling route; local tourism strategies & goals unknown
Links Significant Destinations & Attractions	2.5	Garden River First Nation community/events, Ojibway Park
Connects Significant Population Centres	2.5	Garden River First Nation, Echo Bay
Accesses Services & Accommodations	2	Accommodation (camping, roofed), restaurants, retail at Garden River and Echo Bay – lacks travel information, bicycle shops,

Table B-4: Assessment of Proposed Route

Table B-4: Assessment of Proposed Route		
Route Description:	Highway 17B to Echo Bay – Highway 17b – 16 km	
Route Selection Criteria	Score	Justification / Rationale
		Emergency health care
Provides Intermodal Links	1	Bus
Easy to Follow	2.5	Lacks signs, route map
Crosses Major Physical Barrier(s)	3	Paved shoulder highway bridge crossings of Garden River, inlet from St. Mary’s River
Meets User Needs	2	Lacks designated staging & parking areas
Motor Vehicle Traffic Volumes	2.5	Occasionally heavy (weekdays early morning, late afternoon)
Motor Vehicle Operating Speeds	3	80km/hour or less
Truck & Commercial Vehicle Traffic	2.5	Light to moderate
Sightlines	3	No issues
Emergency Access	3	No Issues
Collision History	Unknown	Data not readily available
Makes the Best Use of Existing Cycling & Trail Infrastructure	N/A	No existing cycling or trail infrastructure
Appropriateness of Facility Types	2	Requires designation and signing as shared roadway; would benefit from consistent width paved shoulders (16km) of 1.2m
Local Commitment	2	Possible opposition due to concern re: liability for cyclist injury/death; would benefit from Welcome Cyclist accreditation for businesses
Benefits vs. Investment Cost	Unknown	Data not readily available
Operation & Maintenance	2.5	Some debris on roadway in cycling lane

Table B-5: Assessment of Proposed Route

Table B-5: Assessment of Proposed Route		
Route Description:	Echo Bay to Bruce Mines (Route A) – Highway 17B, Bar River Road, Government Road, Centre Line Road, 5 th Concession Road, Caribou Road, Cunningham Street – 44.7 km	
Route Selection Criteria	Score	Justification / Rationale
Scenic & Attractive	2.5	Rural farmland including Mennonite farms, lowland forested areas; some vistas & views, visual points of interest, photo opportunities and significant cultural/historical landscapes; some stopping/rest areas – Echo Bay commercial area, Bruce Mines marina, Bruce Mines commercial area
Demonstrates Existing and / or Future Demand	2.5	Currently used by local cyclists, likely unknown to visiting cyclists
Perception of Safety & Security	2	Shared, secondary roads with minimal, undesignated or signed, cycle facilities
Level of Comfort	2	Paved secondary roads (33.4); paved street (0.6km); gravel surface secondary roads (10.7km)
Topography	3	Generally flat, minimal grades
Consistent with Local Tourism Strategies & Goals	2	Not formally designated as a tourist cycling route; local tourism strategies & goals unknown
Links Significant Destinations & Attractions	3	Bruce Mines (destination -- waterfront, attractions, events, accommodation, restaurants) reached via 2.6km link from 5th Concession Road along Caribou Road and Cunningham Street; St. Joseph Island (destination -- cycling, waterfront, attractions, events, accommodation, restaurants) reached via 7.2km link from Government Road along MacLennan Road and Highway 548; Desbarats events
Connects Significant Population Centres	3	Echo Bay, Desbarats via 1km link from Government Road, and Bruce Mines via 2.6km link from 5th Concession Road along Caribou Road and Cunningham Street
Accesses Services & Accommodations	2	Accommodation (camping, roofed), restaurants, retail in Bruce Mines; restaurants, retail in Echo Bay; snack bar, retail in Desbarats; lacks travel information, bicycle shops, emergency health care;
Provides Intermodal Links	1	Bus
Easy to Follow	2	Many turns; lacks signs, route map
Crosses Major Physical Barrier(s)	2	Level crossing of Highway 17 (4 lanes) on Bar River Road; level crossing of Highway 17 on MacLennan Road (link to St. Joseph

Table B-5: Assessment of Proposed Route

Table B-5: Assessment of Proposed Route		
Route Description:	Echo Bay to Bruce Mines (Route A) – Highway 17B, Bar River Road, Government Road, Centre Line Road, 5 th Concession Road, Caribou Road, Cunningham Street – 44.7 km	
Route Selection Criteria	Score	Justification / Rationale
		Island)
Meets User Needs	2	Lacks designated staging & parking areas
Motor Vehicle Traffic Volumes	2.5	Occasionally heavy (weekdays early morning, late afternoon) on 4.9km Highway 17B section; light on remainder of route
Motor Vehicle Operating Speeds	3	80km/hour or less
Truck & Commercial Vehicle Traffic	2.5	Light to moderate on Highway 17B (4.9km); light on remainder of route
Sightlines	3	No issues
Emergency Access	3	No issues
Collision History	Unknown	Data not readily available
Makes the Best Use of Existing Cycling & Trail Infrastructure	N/A	No existing cycling or trail infrastructure
Appropriateness of Facility Types	2	Requires paving of gravel road surfaces (10.7km), and designation and signing as shared roadway (44.7km); would benefit from consistent width paved shoulders (4.9km) of 1.2m
Local Commitment	Unknown	Would benefit from Welcome Cyclist accreditation for businesses
Benefits vs. Investment Cost	Unknown	Data not readily available
Operation & Maintenance	2.5	Some debris on roadway in cycling lane

Table B-6: Assessment of Proposed Route

Table B-6: Assessment of Proposed Route		
Route Description:	Echo Bay to Bruce Mines (Route B) - Highway 638 – 52 km	
Route Selection Criteria	Score	Justification / Rationale
Scenic & Attractive	2.5	Rural farmland, Canadian Shield forested areas, hills; some vistas & views (North Channel), visual points of interest, photo opportunities and significant cultural/historical landscapes; some stopping/rest areas – Echo Bay commercial area, Rydall Bank Park, Bruce Mines marina, Bruce Mines commercial area
Demonstrates Existing and / or Future Demand	2.5	Currently used by local cyclists, likely unknown to visiting cyclists
Perception of Safety & Security	2	Shared, secondary road with minimal, undesignated or signed, cycle facility
Level of Comfort	2.5	Paved secondary road (54km)
Topography	2	Many steep grades, long climbs
Consistent with Local Tourism Strategies & Goals	2	Not formally designated as a tourist cycling route; local tourism strategies & goals unknown
Links Significant Destinations & Attractions	3	Bruce Mines (destination -- waterfront, marina, museum, events, accommodations, restaurants); Sylvan Valley Artisan Studio Tour (September). Hoodwink Hollow attraction
Connects Significant Population Centres	3	Echo Bay, Bruce Mines
Accesses Services & Accommodations	2	Accommodation (camping, roofed), restaurants, retail in Bruce Mines; restaurants, retail in Echo Bay; lacks travel information, bicycle shops, emergency health care
Provides Intermodal Links	1	Bus
Easy to Follow	2.5	Lacks signs, route map
Crosses Major Physical Barrier(s)	2	Level crossing of Highway 17 (4 lanes) on Highway 638
Meets User Needs	2	Lacks designated staging & parking areas
Motor Vehicle Traffic Volumes	3	Light
Motor Vehicle	3	80 km / hour or less

Table B-6: Assessment of Proposed Route		
Route Description:	Echo Bay to Bruce Mines (Route B) - Highway 638 – 52 km	
Route Selection Criteria	Score	Justification / Rationale
Operating Speeds		
Truck & Commercial Vehicle Traffic	3	Light
Sightlines	3	No issues
Emergency Access	3	No issues
Collision History	Unknown	Data not readily available
Makes the Best Use of Existing Cycling & Trail Infrastructure	N/A	No existing cycling or trail infrastructure
Appropriateness of Facility Types	2	Requires designation and signing as shared roadway (54km)
Local Commitment	Unknown	Would benefit from Welcome Cyclist accreditation for businesses
Benefits vs. Investment Cost	Unknown	Data not readily available
Operation & Maintenance	Unknown	

Table B-7: Assessment of Proposed Route

Table B-7: Assessment of Proposed Route		
Route Description:	Bruce Mines to Little Rapids and Thessalon – Highway 17, highway 638, Cloudslee Road, Ansonia Road, Little Rapids Road, Highway 129 – 28.7 km	
Route Selection Criteria	Score	Justification / Rationale
Scenic & Attractive	2.5	Lowland forested areas, rural farmland; some vistas & views (North Channel), visual points of interest, photo opportunities and significant cultural/historical landscapes; many stopping/rest areas – Bruce Mines marina, Bruce Mines commercial area, Little Rapids dam, Little Rapids General Store, Little Rapids Heritage Park, Thessalon lakeside park, Thessalon marina, Thessalon commercial area
Demonstrates Existing and / or Future Demand	2	May be used by local cyclists, likely unknown to visiting cyclists
Perception of Safety & Security	2	Shared, busy Trans-Canada Highway (short section) with no designated or signed, cycle facilities; shared quiet secondary roads with minimal, undesignated or signed, cycle facilities
Level of Comfort	2.5	Paved major highway (0.7km); paved secondary highway (4.5km); paved secondary roads (23.5km); paved streets (0.5km)
Topography	2.5	Flat to gently rolling
Consistent with Local Tourism Strategies & Goals	2	Not formally designated as a tourist cycling route; local tourism strategies & goals unknown
Links Significant Destinations & Attractions	3	Bruce Mines (destination -- waterfront, marina, attractions, events, accommodation, restaurants); Little Rapids Dam, General Store, Museum attractions at Little Rapids; Thessalon (destination -- waterfront, marina, attractions, events, accommodation, restaurants)
Connects Significant Population Centres	3	Bruce Mines, Little Rapids and Thessalon
Accesses Services & Accommodations	2	Accommodation (camping, roofed), restaurants, retail in Bruce Mines and Thessalon; access to snacks, refreshments, retail in Little Rapids; lacks travel information, bicycle shops, emergency health care
Provides Intermodal Links	1	Bus
Easy to Follow	2	Many turns, lacks signs, route map

Table B-7: Assessment of Proposed Route

Table B-7: Assessment of Proposed Route		
Route Description:	Bruce Mines to Little Rapids and Thessalon – Highway 17, highway 638, Cloudslee Road, Ansonia Road, Little Rapids Road, Highway 129 – 28.7 km	
Route Selection Criteria	Score	Justification / Rationale
Crosses Major Physical Barrier(s)	2	Level crossing of Highway 17 on Highway 129
Meets User Needs	2	Lacks designated staging & parking areas
Motor Vehicle Traffic Volumes	3	Light except on Highway 17 (0.7 km)
Motor Vehicle Operating Speeds	3	80 km / h or less, except on Highway 17 (0.7 km)
Truck & Commercial Vehicle Traffic	3	Light except on Highway 17 (0.7 km)
Sightlines	3	No issues
Emergency Access	3	No issues
Collision History		Data not readily available
Makes the Best Use of Existing Cycling & Trail Infrastructure	Unknown	No existing cycling or trail infrastructure
Appropriateness of Facility Types	2.5	Requires designation and signing as shared roadway (28.7 km)
Local Commitment	Unknown	Would benefit from Welcome Cyclist accreditation for businesses
Benefits vs. Investment Cost	Unknown	Data not readily available
Operation & Maintenance	Unknown	

Table B-8: Assessment of Proposed Route

Table B-8: Assessment of Proposed Route		
Route Description:	Thessalon to Iron Bridge - Highway 129, Ingram Road, Brownlee Road, Maple Ridge Road, Pioneer Road, Horan Road, Dayton Road, Eley Road, Highway 17, Warnock Road, Richard Avenue – 40km	
Route Selection Criteria	Score	Justification / Rationale
Scenic & Attractive	2.5	Brownlee Lake, Bright Lake, lowland forested areas, rural farmland including Amish and Mennonite farms; some vistas & views (North Channel), visual points of interest, photo opportunities and significant cultural/historical landscapes; many stopping/rest areas –Thessalon lakeside park, Thessalon marina, Thessalon commercial area, Iron Bridge Museum and Information Centre, Iron Bridge Tally Ho Park
Demonstrates Existing and / or Future Demand	2	May be used by local cyclists, likely unknown to visiting cyclists
Perception of Safety & Security	2	Shared, busy Trans-Canada Highway (short section) with no designated or signed, cycle facilities; shared, quiet secondary roads with minimal, undesignated or signed, cycle facilities
Level of Comfort	2	Paved major highway (0.2km); paved secondary road (23km); paved streets (0.4km); gravel surface secondary roads (12.8km)
Topography	2.5	Flat to gently rolling
Consistent with Local Tourism Strategies & Goals	2	Not formally designated as a tourist cycling route; local tourism strategies & goals unknown
Links Significant Destinations & Attractions	3	Thessalon (destination -- waterfront, marina, attractions, events, accommodation, restaurants); Brownlee Lake (destination – private campground, beach, restaurant); Round Barn attraction near Brownlee Lake; artisan studio near Bright Lake; Tally Ho Park, Museum/Tourism Information Centre, beginning/end of Deer Trail scenic route in Iron Bridge
Connects Significant Population Centres	3	Thessalon, Iron Bridge
Accesses Services & Accommodations	2.5	Accommodation (camping, roofed), restaurants, retail in Thessalon; accommodation (camping, roofed), restaurants, retail, travel information in Iron Bridge; restaurant/retail store on Maple Ridge Road; lacks bicycle shops and emergency health care
Provides Intermodal Links	1	Bus
Easy to Follow	2	Many turns, lacks signs, route map
Crosses Major	2	Level crossing of Highway 17 on Brownlee Road; level crossing

Table B-8: Assessment of Proposed Route

Table B-8: Assessment of Proposed Route		
Route Description:	Thessalon to Iron Bridge - Highway 129, Ingram Road, Brownlee Road, Maple Ridge Road, Pioneer Road, Horan Road, Dayton Road, Eley Road, Highway 17, Warnock Road, Richard Avenue – 40km	
Route Selection Criteria	Score	Justification / Rationale
Physical Barrier(s)		of Highway 17 in village of Iron Bridge
Meets User Needs	2	Lacks designated staging & parking areas
Motor Vehicle Traffic Volumes	3	Light except on Highway 17 (0.2 km)
Motor Vehicle Operating Speeds	3	80 km / h or less except on Highway 17 (0.2 km)
Truck & Commercial Vehicle Traffic	3	Light except on Highway 17 (0.2 km)
Sightlines	2	Poor sightline to east at level crossing of Highway 17 on Brownlee Road
Emergency Access	3	No issues
Collision History	Unknown	Data not readily available
Makes the Best Use of Existing Cycling & Trail Infrastructure	3	Pedestrian/cycling/snowmobile bridge used to cross Mississagi River in Iron Bridge
Appropriateness of Facility Types	2	Requires paving of gravel surfaces (12.8km) and designation and signing as shared roadway/streets (40km);
Local Commitment	Unknown	Would benefit from Welcome Cyclist accreditation for businesses
Benefits vs. Investment Cost	Unknown	Data not readily available
Operation & Maintenance	Unknown	

Table B-9: Assessment of Proposed Route

Table B-9: Assessment of Proposed Route		
Route Description:	Iron Bridge to Blind River (Route A) – Highway 17 – 26 km	
Route Selection Criteria	Score	Justification / Rationale
Scenic & Attractive	3	Mississagi River, lowland forested areas; many vistas & views (Mississagi River), visual points of interest, photo opportunities and significant cultural/historical landscapes; some stopping/rest areas –Iron Bridge Museum and Information Centre, Iron Bridge Tally Ho Park, MTO maintained stopping/rest area, Blind River marina, Blind River commercial area, and Blind River Information Centre
Demonstrates Existing and / or Future Demand	3	Used by local and visiting cyclists
Perception of Safety & Security	0	Shared, busy, Trans-Canada Highway with no designated or signed, cycle facilities
Level of Comfort	1	Paved major highway (26km)
Topography	2.5	Mostly flat with a few climbs (not steep or difficult)
Consistent with Local Tourism Strategies & Goals	2	Not formally designated as a tourist cycling route; local tourism strategies & goals unknown
Links Significant Destinations & Attractions	3	Tally Ho Park, Museum/Tourism Information Centre, beginning/end of Deer Trail scenic route in Iron Bridge; Blind River (destination – waterfront, marina, attractions, events, accommodation, restaurants)
Connects Significant Population Centres	3	Iron Bridge, Blind River
Accesses Services & Accommodations	2.5	Accommodation (camping, roofed), restaurants, retail, travel information in Iron Bridge; accommodation (camping, roofed), restaurants, retail, travel information, emergency health care in Blind River; lacks bicycle shops
Provides Intermodal Links	1	Bus
Easy to Follow	3	Lacks signs, route map
Crosses Major Physical Barrier(s)	N/A	No major physical barriers to cross
Meets User Needs	1	Lacks designated staging & parking areas; long stretch on Highway 17 without cycle facility likely to be unacceptable for many cyclists
Motor Vehicle Traffic Volumes	0	Consistently heavy

Table B-9: Assessment of Proposed Route

Table B-9: Assessment of Proposed Route		
Route Description:	Iron Bridge to Blind River (Route A) – Highway 17 – 26 km	
Route Selection Criteria	Score	Justification / Rationale
Motor Vehicle Operating Speeds	0	Consistently above 80 km / h
Truck & Commercial Vehicle Traffic	0	Consistently heavy
Sightlines	3	No issues
Emergency Access	3	No issues
Collision History	Unknown	No data readily available
Makes the Best Use of Existing Cycling & Trail Infrastructure	N/A	No existing cycling or trail infrastructure
Appropriateness of Facility Types	1	Required paved cycle lane, including designation and signing (16 km)
Local Commitment	Unknown	Would benefit from Welcome Cyclist accreditation for businesses
Benefits vs. Investment Cost	Unknown	Data not readily available
Operation & Maintenance	Unknown	

Table B-10: Assessment of Proposed Route

Table B-10: Assessment of Proposed Route		
Route Description:	Iron Bridge to Blind River (Route B) - Chiblow Lake Road, Potomac Road West, ATV/Snowmobile Trail, Canoe Lake Road, Astles Road, Highway 557 – 32km	
Route Selection Criteria	Score	Justification / Rationale
Scenic & Attractive	2	Lowland forests, remote dense bush, wildlife habitat; few vistas & views, visual points of interest, photo opportunities or significant cultural/historical landscapes; stopping/rest areas at either end of ride – Iron Bridge at Museum and Information Centre and Tally Ho Park, Blind River at marina, commercial area and Information Centre
Demonstrates Existing and / or Future Demand	1	Unlikely local or visiting cyclists have used the remote, ATV/Snowmobile trail; possible that local cyclists use Chiblow Lake Road and Highway 557
Perception of Safety & Security	1	Shared, secondary road with minimal, undesignated or signed, cycle facility; remote, difficult to access off road ATV/snowmobile trail
Level of Comfort	1	Paved secondary roads (15.1km); gravel surface secondary roads (4,7km); very rough, wet ATV/snowmobile trail (12.2km)
Topography	2.5	Mostly flat with a few climbs (not steep or difficult)
Consistent with Local Tourism Strategies & Goals	2	Not formally designated as a tourist cycling route; local tourism strategies & goals unknown
Links Significant Destinations & Attractions	3	Tally Ho Park, Museum/Tourism Information Centre, beginning/end of Deer Trail scenic route in Iron Bridge; Thistle Iron Works (artisan studio); Blind River (destination – waterfront, marina, attractions, events, accommodation, restaurants)
Connects Significant Population Centres	3	Iron Bridge, Blind River
Accesses Services & Accommodations	2.5	Accommodation (camping, roofed), restaurants, retail, travel information in Iron Bridge; accommodation (camping, roofed), restaurants, retail, travel information, emergency health care in Blind River; lacks bicycle shops
Provides Intermodal Links	1	Bus
Easy to Follow	1	Many turns, lacks road or trail signs, route map
Crosses Major Physical Barrier(s)	3	Paved shoulder road bridge crossing of Blind River
Meets User Needs	0	ATV/snowmobile trail segment suitable for experienced mountain bike riders and adventure seeking riders who enjoy remote wilderness experience; lacks designated staging & parking areas

Table B-10: Assessment of Proposed Route

Route Description:	Iron Bridge to Blind River (Route B) - Chiblow Lake Road, Potomac Road West, ATV/Snowmobile Trail, Canoe Lake Road, Astles Road, Highway 557 – 32km	
Route Selection Criteria	Score	Justification / Rationale
Motor Vehicle Traffic Volumes	3	Light on roads, nonexistent on trail
Motor Vehicle Operating Speeds	3	80km/hour or less on roads
Truck & Commercial Vehicle Traffic	3	Light on roads, nonexistent on trail
Sightlines	3	No issues
Emergency Access	1	Emergency vehicle access to trail section would be difficult
Collision History	Unknown	Data not readily available
Makes the Best Use of Existing Cycling & Trail Infrastructure	3	ATV / Snowmobile trail (12.2 km)
Appropriateness of Facility Types	1	Requires paving of gravel surfaces (4.7km), upgrading of ATV/snowmobile trail surface (12.2km), and designation and signing of shared roadways (19.8km)
Local Commitment	Unknown	Would benefit from Welcome Cyclist accreditation for businesses
Benefits vs. Investment Cost	Unknown	Data not readily available
Operation & Maintenance	Unknown	

Table B-11: Assessment of Proposed Route

Table B-11: Assessment of Proposed Route		
Route Selection Criteria	Score	Justification / Rationale
Route Description:	Blind River to Algoma Mills - Woodward Avenue (Blind River), Murray Street (Blind River), Confederation Street (Blind River), Queen Ave. (Blind River), Leacock Street (Blind River), Blind River Bike Path, Woodlawn Avenue (Blind River), Oak Drive (Blind River), Beech Drive (Blind River), Frampet Drive (Blind River), Centre Street (Algoma Mills), Algoma Mills Trail – 13km	
Scenic & Attractive	1	Commercial and residential areas, built up rural areas; few vistas & views, visual points of interest, photo opportunities or significant cultural/historical landscapes; stopping/rest areas only in Blind River at Information Centre, marina, commercial district
Demonstrates Existing and / or Future Demand	3	Local cyclists use Blind River bike paths and connecting residential streets, visiting cyclists may as well; no information on level of use of Algoma Mills trail or Centre Street in Algoma Mills
Perception of Safety & Security	2.5	Off road, designated and signed bike paths; off road, ATV/snowmobile trail; shared streets with minimal, undesignated or signed, cycle facilities
Level of Comfort	1	Paved streets (5.6km); firm, gravel surface trails (3.4km); loose gravel surface trails that are difficult for bicycles (4.1km)
Topography	3	Flat to gently rolling
Consistent with Local Tourism Strategies & Goals	2	Not formally designated as a tourist cycling route; local tourism strategies & goals unknown
Links Significant Destinations & Attractions	3	Blind River (destination – waterfront, marina, attractions, events, accommodation, restaurants)
Connects Significant Population Centres	3	Blind River, Algoma Mills
Accesses Services & Accommodations	2.5	Accommodation (camping, roofed), restaurants, retail, travel information, emergency health care in Blind River; lacks bicycle shops
Provides Intermodal Links	1	Bus
Easy to Follow	2.5	Some bike route signs, but more required, especially on streets; lacks route map
Crosses Major Physical Barrier(s)	2	Two level crossings of Highway 17 between sections of bike trail; additional level crossing of Highway 17 at Algoma Mills near curve
Meets User Needs	2	Trails and residential streets keep cyclists off Highway 17, although some sections of trail difficult to ride; lacks designated staging & parking areas

Table B-11: Assessment of Proposed Route

Route Description:	Blind River to Algoma Mills - Woodward Avenue (Blind River), Murray Street (Blind River), Confederation Street (Blind River), Queen Ave. (Blind River), Leacock Street (Blind River), Blind River Bike Path, Woodlawn Avenue (Blind River), Oak Drive (Blind River), Beech Drive (Blind River), Frampet Drive (Blind River), Centre Street (Algoma Mills), Algoma Mills Trail – 13km	
Route Selection Criteria	Score	Justification / Rationale
Motor Vehicle Traffic Volumes	3	Light on streets, none on trails
Motor Vehicle Operating Speeds	3	Less than 80 km / h on streets
Truck & Commercial Vehicle Traffic	3	Light on streets, none on trails
Sightlines	2	Sightline concern at Highway 17 crossing in Algoma Mills
Emergency Access	3	No issues
Collision History	Unknown	Data not readily available
Makes the Best Use of Existing Cycling & Trail Infrastructure	3	Off road trails (7.5km) much of which is designated as bicycle trail
Appropriateness of Facility Types	2	Requires upgrading of surface of off road trail (4.1km) -- alternative is paved cycle lane on Highway 17 (4.1km); also more signing of off road trails and connector streets (13km)
Local Commitment	Unknown	Would benefit from Welcome Cyclist accreditation for businesses
Benefits vs. Investment Cost	Unknown	Data not readily available
Operation & Maintenance	Unknown	

Table B-12: Assessment of Proposed Route

Table B-12: Assessment of Proposed Route		
Route Description:	Algoma Mills to Spanish - Highway 538, Highway 17, Martin Road, Highway 17, Riverview Road, Highway 17, Village Road West, Brennan Harbour Road, Public Road, Trunk Road – 39.8km	
Route Selection Criteria	Score	Justification / Rationale
Scenic & Attractive	3	North Channel, Serpent River, lowland forested areas, Serpent River First Nation; many vistas & views, visual points of interest, photo opportunities and significant cultural/historical landscapes; stopping/rest areas at lakeside park near Cutler, Spanish marina and Spanish commercial area
Demonstrates Existing and / or Future Demand	2	Local and visiting cyclists use Highway 17; local cyclists may be aware of secondary roads
Perception of Safety & Security	1.5	Shared, busy Trans-Canada Highway with no designated or signed, cycle facilities; quiet secondary roads with minimal, undesignated or signed, cycle facilities
Level of Comfort	2	Paved major highway (15.4km) – option for 1.1km gravel surface, secondary road (Old Hydro Road) west of Spragge; paved secondary roads (11.5km); gravel surface secondary roads (12.9km)
Topography	2.5	Mostly flat with a few climbs (not steep or difficult)
Consistent with Local Tourism Strategies & Goals	2	Not formally designated as a tourist cycling route; local tourism strategies & goals unknown
Links Significant Destinations & Attractions	3	Rail heritage attraction (Highway 538 near Algoma Mills); Scenic Lookout Trail (Riverview Road near Serpent River); start/end of Deer Trail loop at Highway 108 and Highway 17; waterfront park and Serpent River First Nation Pow Wow grounds on Village Road West near Cutler; Spanish (destination – waterfront, marina, attractions, events, accommodation, restaurants)
Connects Significant Population Centres	3	Algoma Mills, Cutler, Spanish
Accesses Services & Accommodations	2	Accommodation (camping, roofed), food & beverage, retail in Spanish; snack bar/retail in Cutler; lacks emergency health care, travel information, bicycle shops
Provides Intermodal Links	1	Bus
Easy to Follow	2	Many turns, lacks signs, route map
Crosses Major Physical Barrier(s)	1	Level road crossing of rail line; barricade on unused road bridge crossing of Serpent River; some challenges for cyclists needing to cross lanes when rejoining Highway 17
Meets User Needs	1	Segments on Highway 17 without cycle facility likely to be unacceptable for many cyclists; lacks designated staging &

Table B-12: Assessment of Proposed Route

Table B-12: Assessment of Proposed Route		
Route Description:	Algoma Mills to Spanish - Highway 538, Highway 17, Martin Road, Highway 17, Riverview Road, Highway 17, Village Road West, Brennan Harbour Road, Public Road, Trunk Road – 39.8km	
Route Selection Criteria	Score	Justification / Rationale
		parking areas
Motor Vehicle Traffic Volumes	2	Consistently heavy on Highway 17 (15.4km); light on secondary roads
Motor Vehicle Operating Speeds	1	Consistently above 80km/hr on Highway 17 (15.4km); 80km/hour or lower on secondary roads
Truck & Commercial Vehicle Traffic	2	Consistently heavy on Highway 17 (15.4km); light on secondary roads
Sightlines	3	No issues
Emergency Access	3	No issues
Collision History	Unknown	Data not readily available
Makes the Best Use of Existing Cycling & Trail Infrastructure	N/A	No existing cycling or trail infrastructure
Appropriateness of Facility Types	1.5	Requires paved cycling lane on Highway 17 (15.4km) – alternative is 14.3km paved cycling lane and paving of gravel surface secondary road (1.1km); paving of gravel surface secondary roads (12.9km); also, designation and signing of shared roadway (39.8km)
Local Commitment	Unknown	Would benefit from Welcome Cyclist accreditation for businesses
Benefits vs. Investment Cost	Unknown	Data not readily available
Operation & Maintenance	Unknown	

Table B-13: Assessment of Proposed Route

Table B-13: Assessment of Proposed Route		
Route Description:	Spanish to Espanola - John Street (Spanish), DeClerk Road, Menard Crescent, Highway 17, Walford Road, River Road, Government Road, Lee Valley Road, Barber Street (Espanola) – 54.6km	
Route Selection Criteria	Score	Justification / Rationale
Scenic & Attractive	3	Spanish River, Canadian Shield and lowland forested areas, rural farmland; many vistas & views (La Cloche Mountains, Spanish River, Aux Sauble River falls) visual points of interest, photo opportunities and significant cultural/historical landscapes; stopping/rest areas at Spanish marina and Spanish commercial area, along shores of Spanish River, Chute Provincial Park, Espanola commercial area
Demonstrates Existing and / or Future Demand	2	Local and visiting cyclists use Highway 17; local cyclists likely aware of secondary roads
Perception of Safety & Security	2	Shared, busy Trans-Canada Highway with no designated or signed, cycle facilities; shared, quiet secondary roads with minimal, undesignated or signed, cycle facilities although part of route (Lee Valley Road) is shared with Trans Canada Trail; shared streets with minimal, undesignated or signed cycle facilities
Level of Comfort	2	Paved major highway (4.4km); paved secondary roads (37.6km); paved streets (1.3km); gravel surface secondary roads (11.3km)
Topography	3	Flat to gently rolling
Consistent with Local Tourism Strategies & Goals	2	Not formally designated as a tourist cycling route; local tourism strategies & goals unknown
Links Significant Destinations & Attractions	3	Spanish (destination – waterfront, marina, attractions, events, accommodation, restaurants), Chute Provincial Park (via 1.5km link at Massey), Espanola (destination – attractions, events, accommodation, restaurants, commercial district)
Connects Significant Population Centres	3	Spanish, Massey, Espanola
Accesses Services & Accommodations	3	Accommodation (camping, roofed), restaurants, retail in Spanish; restaurants, retail in Massey; accommodation (roofed), restaurants, retail, travel information, bicycle shop, emergency health care in Espanola
Provides Intermodal Links	1	Bus
Easy to Follow	2	Many turns, lacks signs, route map
Crosses Major Physical Barrier(s)	1	Level crossing of Highway 17 in Spanish; road bridge crossing of Spanish River bridge in Massey; undesignated/approved pedestrian/cycle crossing of rail line at Walford

Table B-13: Assessment of Proposed Route

Route Description:	Spanish to Espanola - John Street (Spanish), DeClerk Road, Menard Crescent, Highway 17, Walford Road, River Road, Government Road, Lee Valley Road, Barber Street (Espanola) – 54.6km	
Route Selection Criteria	Score	Justification / Rationale
Meets User Needs	1	Segments on Highway 17 without cycle facility likely to be unacceptable for many cyclists; lacks designated staging & parking areas
Motor Vehicle Traffic Volumes	2	Consistently heavy on Highway 17 (4.4km); light on secondary roads, residential streets
Motor Vehicle Operating Speeds	1	Consistently above 80km/hr on Highway 17 (4.4km); 80km/hour or lower on secondary roads
Truck & Commercial Vehicle Traffic	2	Consistently heavy on Highway 17 (4.4km); light on secondary roads
Sightlines	3	No issues
Emergency Access	3	No issues
Collision History	Unknown	Data not readily available
Makes the Best Use of Existing Cycling & Trail Infrastructure	N/A	No existing cycling or trail infrastructure
Appropriateness of Facility Types	1.5	Requires paved cycling lane on Highway 17 (4.4km); paving of gravel surface secondary roads (11.3km); designated and signed shared roadway/streets (54.6km)
Local Commitment	Unknown	Would benefit from Welcome Cyclist accreditation for businesses
Benefits vs. Investment Cost	Unknown	Data not readily available
Operation & Maintenance	Unknown	

Table B-14: Assessment of Proposed Route

Table B-14: Assessment of Proposed Route		
Route Description:	Espanola to Nairn Centre - Centre Street (Espanola), Highway 6, Jacklin Road, Highway 17, Old Nairn Road, Minto Street (Nairn Centre) – 20km	
Route Selection Criteria	Score	Justification / Rationale
Scenic & Attractive	2	Lowland forests, built up rural area, Espanola commercial area; few vistas & views (Spanish River), visual points of interest, photo opportunities and significant cultural/historical landscapes; stopping/rest areas at Espanola commercial area, MTO operated stopping/rest area on Highway 17, Nairn Centre commercial area
Demonstrates Existing and / or Future Demand	2	Local and visiting cyclists use Highway 6 and Highway 17; local cyclists likely aware of secondary roads
Perception of Safety & Security	2	Shared busy Trans-Canada Highway with no designated or signed, cycle facility; busy major highway with no designated or signed cycle facility; quiet secondary roads with minimal, undesignated or signed, cycle facilities
Level of Comfort	2	Paved major highways (7.5km); paved secondary roads (11.4km); paved street (0.5km)
Topography	3	Flat
Consistent with Local Tourism Strategies & Goals	2	Not formally designated as a tourist cycling route; local tourism strategies & goals unknown
Links Significant Destinations & Attractions	3	Espanola (destination – attractions, events, accommodation, restaurants, commercial district); 48km link via Highway 6 to Manitoulin Island (destination – cycling, waterfront, marinas, beaches, attractions, events, accommodation, restaurants)
Connects Significant Population Centres	3	Espanola, Nairn Centre
Accesses Services & Accommodations	3	Accommodation (roofed), restaurants, retail, travel information, bicycle shop, emergency health care in Espanola; restaurant, retail in Nairn Centre
Provides Intermodal Links	1	Bus
Easy to Follow	2.5	Lacks signs, route map
Crosses Major Physical Barrier(s)	3	Paved shoulder highway bridge crossings of Spanish River on Highway 6 in Espanola and on Highway 17 west of Nairn Centre
Meets User Needs	1	Segments on Highway 6 & 17 without cycle facility likely to be unacceptable for many cyclists; lacks designated staging & parking areas
Motor Vehicle Traffic	2	Consistently heavy on Highways 6 & 17 (7.5km); light on

Table B-14: Assessment of Proposed Route

Route Description:	Espanola to Nairn Centre - Centre Street (Espanola), Highway 6, Jacklin Road, Highway 17, Old Nairn Road, Minto Street (Nairn Centre) – 20km	
Route Selection Criteria	Score	Justification / Rationale
Volumes		secondary roads, residential streets
Motor Vehicle Operating Speeds	1	Consistently above 80km/hr on Highways 6 & 17 (7.5km); 80km/hour or lower on secondary roads
Truck & Commercial Vehicle Traffic	2	Consistently heavy on Highway 17 (7.5km); light on secondary roads
Sightlines	3	No issues
Emergency Access	3	No issues
Collision History	Unknown	Data not readily available
Makes the Best Use of Existing Cycling & Trail Infrastructure	N/A	No existing cycling or trail infrastructure
Appropriateness of Facility Types	2	Requires paved cycling lane on Highway 6 & 17 (7.5km) and designation and signing of shared roadway/streets (20km) paved shoulders on Highway 17 are too narrow; gravel surface on secondary roads should be paved
Local Commitment	Unknown	Would benefit from Welcome Cyclist accreditation for businesses
Benefits vs. Investment Cost	Unknown	Data not readily available
Operation & Maintenance	Unknown	

Table B-15: Assessment of Proposed Route

Table B-15: Assessment of Proposed Route		
Route Description:	Nairn Centre to Whitefish - Spanish River Road, Fairbank Lake Road, Bay Street – 24.5km	
Route Selection Criteria	Score	Justification / Rationale
Scenic & Attractive	2.5	Lowland forested areas, rural farmland, rural communities; few vistas & views, visual points of interest, photo opportunities and significant cultural/historical landscapes; stopping/rest areas at Nairn Centre and Whitefish commercial areas
Demonstrates Existing and / or Future Demand	2	Local cyclists likely aware of secondary roads, visiting cyclists unlikely to be aware
Perception of Safety & Security	2.5	Shared, quiet secondary roads with minimal, undesignated or signed, cycle facilities
Level of Comfort	2.5	Paved secondary roads (24.5km when Fairbank Lake Road is paved at completion of construction)
Topography	3	Flat to gently rolling
Consistent with Local Tourism Strategies & Goals	2	Not formally designated as a tourist cycling route; local tourism strategies & goals unknown
Links Significant Destinations & Attractions	2	Fairbanks Lake Provincial Park via 12km shared, paved secondary road link
Connects Significant Population Centres	2	Nairn Centre, Whitefish
Accesses Services & Accommodations	2	Food & beverage, retail in Nairn Centre; snack bar/retail on Fairbank Lake Road; food & beverage, retail in Whitefish; lacks travel information, bicycle shop, emergency health care
Provides Intermodal Links	1	Bus
Easy to Follow	2.5	Lacks signs, route map
Crosses Major Physical Barrier(s)	3	Paved shoulder road overpass crossing of Highway 17
Meets User Needs	2	Lacks designated staging & parking areas
Motor Vehicle Traffic Volumes	3	Light
Motor Vehicle Operating Speeds	3	80 km / h or less
Truck & Commercial Vehicle Traffic	3	Light, but may increase after completion of Fairbank Lake Road upgrading
Sightlines	3	No issues

Table B-15: Assessment of Proposed Route		
Route Description:	Nairn Centre to Whitefish - Spanish River Road, Fairbank Lake Road, Bay Street – 24.5km	
Route Selection Criteria	Score	Justification / Rationale
Emergency Access	3	No issues
Collision History	Unknown	Data not readily available
Makes the Best Use of Existing Cycling & Trail Infrastructure	N/A	No existing cycling or trail infrastructure
Appropriateness of Facility Types	2.5	Require designation and signing of shared roadway (24.5 km)
Local Commitment	Unknown	Would benefit from Welcome Cyclist accreditation for businesses
Benefits vs. Investment Cost	Unknown	Data not readily available
Operation & Maintenance	Unknown	

Table B-16: Assessment of Proposed Route

Table B-16: Assessment of Proposed Route		
Route Selection Criteria	Score	Justification / Rationale
Route Description:	Whitefish to Sudbury West - Graham Road, Regional Road 55, ATV/Snowmobile Trail #1, Blueberry Hill Road, ATV/Snowmobile Trail #2, Old Soo Road, Regional Road 24, Multi-Use Trail, Westview Crescent, Timothy Avenue, Melvyn Avenue, Patricia Street, Mikkola Road, Kantola Road, Moxam Landing Road, Gibson Road, Southview Drive – 29.8km	
Scenic & Attractive	3	Small lakes, rural streams, Canadian Shield forested areas, rural communities, City of Sudbury residential areas; many vistas & views (Vermillion River, Simon Lake, Kelly Lake), visual points of interest (mine headframes), photo opportunities and significant cultural/historical landscapes; stopping/rest areas at Centennial Park, Simon Lake Conservation Area, Whitefish and Lively commercial areas
Demonstrates Existing and / or Future Demand	2.5	Local cyclists likely aware of parts or all of route; visiting cyclists may be aware of some parts of route shared by Trans Canada Trail
Perception of Safety & Security	2.5	Off road ATV/snowmobile trails -- option to use paved off road trail and residential streets at Simon Lake (3.5km) to replace ATV/Snowmobile Trail segment; shared, quiet secondary roads with minimal, undesignated or signed, cycle facilities
Level of Comfort	2	Paved secondary roads (12.4km); paved streets (4.1km); gravel & sand surface off road trail (7.5km); gravel surface secondary roads (5.8km)
Topography	2.5	Mostly flat with a few short, steep climbs
Consistent with Local Tourism Strategies & Goals	2.5	Not formally designated as a tourist cycling route; some sections signed as Trans Canada; local tourism strategies & goals unknown
Links Significant Destinations & Attractions	3	Centennial Park; Simon Lake Conservation Area; Kelly Lake walking/hiking trail; Sudbury (destination – attractions, events, accommodation, restaurants, commercial districts)
Connects Significant Population Centres	3	Whitefish, Sudbury
Accesses Services & Accommodations	3	Accommodation (camping), restaurant, retail in/near Whitefish; accommodation (roofed), restaurant, retail, bicycle shop, travel information, emergency health care in Sudbury
Provides Intermodal Links	3	Air, bus, rail
Easy to Follow	2	Many turns; lacks signs, route map
Crosses Major Physical Barrier(s)	2	Level crossing of Highway 17 on Southview Drive; traffic signal level crossing of Regional Road 55 at Lively; pedestrian/cycle bridge crossing of Vermillion River

Table B-16: Assessment of Proposed Route

Table B-16: Assessment of Proposed Route		
Route Selection Criteria	Score	Justification / Rationale
Route Description:	Whitefish to Sudbury West - Graham Road, Regional Road 55, ATV/Snowmobile Trail #1, Blueberry Hill Road, ATV/Snowmobile Trail #2, Old Soo Road, Regional Road 24, Multi-Use Trail, Westview Crescent, Timothy Avenue, Melvyn Avenue, Patricia Street, Mikkola Road, Kantola Road, Moxam Landing Road, Gibson Road, Southview Drive – 29.8km	
Meets User Needs	2	Lacks designated staging & parking areas
Motor Vehicle Traffic Volumes	3	Light
Motor Vehicle Operating Speeds	3	80 km / h or less
Truck & Commercial Vehicle Traffic	3	Light
Sightlines	2	Short sightline to the east at Highway 17 level crossing on Southview Drive
Emergency Access	3	No issues
Collision History	Unknown	Data not readily available
Makes the Best Use of Existing Cycling & Trail Infrastructure	3	ATV/Snowmobile trail (7.5km)
Appropriateness of Facility Types	2	Requires upgrading of ATV/Snowmobile trail (7.5km); paving of gravel surface secondary roads (5.8km); designation and signing of shared roadway (22.3km)
Local Commitment	Unknown	would benefit from Welcome Cyclist accreditation for businesses
Benefits vs. Investment Cost	Unknown	Data not readily available
Operation & Maintenance	Unknown	

Table B-17: Assessment of Proposed Route

Table B-17: Assessment of Proposed Route		
Route Description:	Sudbury West to Sudbury Centre (Route A) - Martindale Road, Ruisseau Junction Creek Trail #1, Riverside Drive, St. James Street, St. Catherines Street, Ruisseau Junction Creek Trail #2, Pedestrian Tunnel, Elgin Street, Brady Street East, Minto Street, Larch Street, Young Street, Cedar Street – 4.2km	
Route Selection Criteria	Score	Justification / Rationale
Scenic & Attractive	2	Urban creek, City of Sudbury residential & commercial areas; few vistas & views, visual points of interest, photo opportunities or significant cultural/historical landscapes; stopping/rest area at city park at corner of Brady Street East and Minto Street
Demonstrates Existing and / or Future Demand	2.5	Local cyclists likely aware of parts or all of route; visiting cyclists may be aware of some parts of route
Perception of Safety & Security	2	Shared busy streets with minimal, undesignated or signed bicycle facilities; narrow off road multi-use trail that would be challenging for inexperienced cyclists
Level of Comfort	2.5	Paved streets (2.7km); packed earth surface off road trail (1.5km)
Topography	3	Flat
Consistent with Local Tourism Strategies & Goals	2.5	Not formally designated as a tourist cycling route; one section (Ruisseau Junction Creek Trail) signed as urban trail; local tourism strategies & goals unknown
Links Significant Destinations & Attractions	2.5	Sudbury (destination – accommodation, restaurants, commercial district)
Connects Significant Population Centres	3	Sudbury
Accesses Services & Accommodations	3	Accommodation (roofed), restaurant, retail, bicycle shop, travel information, emergency health care in Sudbury
Provides Intermodal Links	3	Air, bus, rail
Easy to Follow	2.5	Some route signs (Ruisseau Junction Creek Trail); lacks route map
Crosses Major Physical Barrier(s)	2.5	Pedestrian tunnel crossing of rail lines (cyclists required to dismount and walk)
Meets User Needs	2	Lacks designated staging & parking areas
Motor Vehicle Traffic Volumes	2	Moderate
Motor Vehicle Operating Speeds	3	Less than 80 km / h

Table B-17: Assessment of Proposed Route

Route Description:	Sudbury West to Sudbury Centre (Route A) - Martindale Road, Ruisseau Junction Creek Trail #1, Riverside Drive, St. James Street, St. Catherines Street, Ruisseau Junction Creek Trail #2, Pedestrian Tunnel, Elgin Street, Brady Street East, Minto Street, Larch Street, Young Street, Cedar Street – 4.2km	
Route Selection Criteria	Score	Justification / Rationale
Truck & Commercial Vehicle Traffic	3	Light
Sightlines	3	No issues
Emergency Access	3	No issues
Collision History	Unknown	Data not readily available
Makes the Best Use of Existing Cycling & Trail Infrastructure	3	Ruisseau Junction Creek Trail (1.5km); pedestrian tunnel under rail lines
Appropriateness of Facility Types	2	Requires upgrading of trail surface (1.5km), and designation and signing of shared streets (2.7km)
Local Commitment	Unknown	Would benefit from Welcome Cyclist accreditation for businesses
Benefits vs. Investment Cost	Unknown	Data not readily available
Operation & Maintenance	Unknown	

Table B-18: Assessment of Proposed Route

Table B-18: Assessment of Proposed Route		
Route Description:	Sudbury West to Sudbury Centre (Route B) - Bouchard Street, Regent Street, Walford Road, Ramsey View Ct., Centennial Drive, Paris Street, Multi-Use Path, Elizabeth Street, Edmund Street, Pedestrian/Cycle Overpass, Elgin Street, Minto Street, Larch Street, Young Street, Cedar Street – 5.6km	
Route Selection Criteria	Score	Justification / Rationale
Scenic & Attractive	2.5	Ramsey lake and lakeside park, City of Sudbury residential & commercial areas; points of interest; many vistas & views (Ramsey Lake), visual points of interest (Science North, new hospital), photo opportunities and significant cultural/historical landscapes; stopping/rest areas at Bell Park on Ramsey Lake and city park at corner of Brady Street East and Minto Street
Demonstrates Existing and / or Future Demand	2.5	Local cyclists likely aware of parts or all of route; visiting cyclists may be aware of some parts of route
Perception of Safety & Security	2.5	Shared busy streets with minimal, undesignated or signed bicycle facilities; off road, signed, multi-use path
Level of Comfort	2.5	Paved streets (3.7km); paved multi-use path (1.8km); paved street boulevards (0.3km)
Topography	3	flat
Consistent with Local Tourism Strategies & Goals	2.5	Not formally designated as a tourist cycling route; one section (multi-use path along Ramsey Lake) signed as urban trail; local tourism strategies & goals unknown
Links Significant Destinations & Attractions	3	Sudbury (destination -- Science North, Bell Park/Ramsey lake, events, accommodation, restaurants, commercial district
Connects Significant Population Centres	3	Sudbury
Accesses Services & Accommodations	3	Accommodation (roofed), restaurant, retail, bicycle shop, travel information, emergency health care in Sudbury
Provides Intermodal Links	3	Air, bus, rail
Easy to Follow	2.5	Some route signs (multi-use path along Ramsey Lake); lacks route map
Crosses Major Physical Barrier(s)	3	Pedestrian/cycle bridge crossing of rail lines
Meets User Needs	2	Lacks designated staging & parking areas
Motor Vehicle Traffic Volumes	2	Moderate
Motor Vehicle	3	Less than 80 km / h

Table B-18: Assessment of Proposed Route

Route Description:	Sudbury West to Sudbury Centre (Route B) - Bouchard Street, Regent Street, Walford Road, Ramsey View Ct., Centennial Drive, Paris Street, Multi-Use Path, Elizabeth Street, Edmund Street, Pedestrian/Cycle Overpass, Elgin Street, Minto Street, Larch Street, Young Street, Cedar Street – 5.6km	
Route Selection Criteria	Score	Justification / Rationale
Operating Speeds		
Truck & Commercial Vehicle Traffic	2.5	Light to moderate
Sightlines	3	No issues
Emergency Access	3	No issues
Collision History	Unknown	Data not readily available
Makes the Best Use of Existing Cycling & Trail Infrastructure	3	Requires designation and signing of shared streets (3.7 km)
Appropriateness of Facility Types	2.5	Required designation and signing of shared streets
Local Commitment	Unknown	Would benefit from Welcome Cyclist accreditation for businesses
Benefits vs. Investment Cost	Unknown	Data not readily available
Operation & Maintenance	Unknown	



Sault Ste.
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Sudbury

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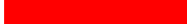
APPENDIX C

RECOMMENDED PRIMARY ROUTE AND CYCLE FACILITIES

Figure C-1: Lake Huron North Shore Bicycle Route: Recommended Primary Route & Cycle Facility Improvements

Route Segment	km Marker	Route	Current Rating	Improvements by Length (kms.)						Links & Alternate Routes
				Designated & Signed Facility	Paved Shoulder on Highway	Paved Secondary Road	Off-Road Trail Surface	New Off-Road Trail	New Bike Lane	
Sault Ste. Marie Area		Gros Cap, 2nd Line to Airport Rd		9.2	9.2					
		2nd Line , Airport Rd to 100m west of Goulais Ave		7.8						
		100m west of Goulaid Ave to intersection		0.2						
		New -- Goulais to Bike Trail		0.3				0.3		
		New -- Bike Trail to Existing Path		0.6				0.6		
		Existing Path to Henry St		0.1						
		Henry St to Prentice Ave		0.3						
		Prentice Ave to Sussex Rd		0.2						
		Sussex Rd to Farewell Terr		0.8						
		Farewell Terr to Churchill Ave		0.06						
		Churchill Ave to Peoples Rd		0.8						
		New -- Trail from Peoples Rd to 2nd Line East		0.4				0.4		
		New -- 2nd Line to Existing Multi-Use Trail		0.2				0.2		
		Existing Trail to Proposed Trail		0.1						
		New -- Trail to North St		0.9				0.9		
		North St to Niagara Dr		0.2						
		Niagara Dr to Sackville Rd		0.4						
		New -- Bike Trail to Industrial Park Cres		0.4				0.4		
		Industrial Park Cres to Great Northern Rd		0.4						
		Great Northern Rd to Linda Road right-of-way		0.3						
		New -- Linda Road right-of-way to Terrance Ave		0.3				0.3		
		Terrance Ave to Old Garden River Rd		0.8						
		Old Garden River Rd to 3rd Line		2.1						
	Old Garden River Rd, from 3rd Line to Great Northern Rd		6.7	6.7						
	0	Roberta Bondar Pavilion, Sault Ste. Marie								
	0	Hub Trail to Queen Street East		6.2					Link to remainder of Hub Trail at km marker 0	
	6	Queen Street East 250 east of Boundary Road		3.1					3.1	
	6.2	Queen Street East to Dacey Road		2					Alternate route to Highway 17b (7.8km) at km marker 6	
		Dacey Road to Future Planned Road		1.7	1.7					
		Future planned road to end.		1.2						
	8.2	New -- Road terminus to Highway 17B		0.5				0.5		
Highway 17B to Echo Bay	8.7	Highway 17B to Highway 638 intersection		15.8					Alternate route to Bruce Mines (52km) at km marker 14	
Echo Bay to Bruce Mines	24.5	Highway 17B from Highway 638 to Bar River Road East		4.9						
	29.4	Bar River Road East to Government Road		1.8						
	31.2	Government Road		23.4					Maclennan Road Link to St. Joseph Island (7.5km) at km marker 50.6; Huron Drive Link to Desbarats (0.6km) at km marker 58.5	
	54.6	Government Road		0.8		0.8				
	55.4	Government Road		0.7						
	56.1	Government Road to Centre Line Road		4.6		4.6				
	60.7	Centre Line Road to Concession 5 Road		3.2						

Figure C-2: Lake Huron North Shore Bicycle Route: Recommended Primary Route & Cycle Facility Improvements

Route Segment	km Marker	Route	Current Rating	Improvements by Length (kms.)					Links & Alternate Routes	
				Designated & Signed Facility	Paved Shoulder on Highway	Paved Secondary Road	Off-Road Trail Surface	New Off-Road Trail		New Bike Lane
Little Rapids to Iron Bridge	87	Highway 129 to Ingram Road		1.8	1.8					Highway 129 Link to Thessalon (4.9km) at km marker 92.6
	88.8	Ingram Road to Walker Road intersection		2.5						
	91.3	Ingram Road from Walker Road to Brownlee Road		4.8		4.8				
	96.1	Brownlee Road to Highway 17		2.4						
	98.5	Brownlee Road from Highway 17 to Maple Ridge Road		1						
	99.5	Maple Ridge Road to Dayton Road		6						
	105.5	Dayton Road to past Horan Road		4.4						
	109.9	Dayton Road from past Horan Road		9.1		9.1				
	119	Dayton Road to Tait Road E		0.7		0.7				
	119.7	Tait Road E to Ely Road		0.1		0.1				
	119.8	Ely road to Highway 17		1.6						
	121.4	Highway 17 to Warnock Road (Iron Bridge)		0.2	0.2					
121.6	Warnock Road to Richard Ave		0.2							
121.8	Richard Ave to Bridge Street		0.3							
Iron Bridge to Blind River	122.1	Bridge Street to Glen Street		0.7					Link to west end of Deer Trail Loop (128km) at km marker 128 (Highway 546)	
	122.8	Glen Street to James Street		0.9						
	123.7	James Street to Highway 17		0.6						
	124.3	Highway 17 to Hudson Street (Blind River)		23.1	23.1					
	147.4	Hudson Street to Woodward Ave.		0.6						
Sub Totals				61	25.1	14.7	0	0		
Legend		Off road trail or path, good surface								
		Off road trail or path, loose gravel/sand surface								
		On road or street, paved surface, low traffic volume								
		On road or street, gravel/dirt surface, low traffic volume								
		On road or street, paved surface & shoulder, occasional high traffic volume								
		On road or street, paved surface, no shoulder, consistent high traffic volume								

1.3

Figure C-5: Lake Huron North Shore Bicycle Route: Recommended Primary Route & Cycle Facility Improvements

Route Segment	km Marker	Route	Current Rating	Improvements by Length (kms.)						Links & Alternate Routes
				Designated & Signed Facility	Paved Shoulder on Highway	Paved Secondary Road	Off-Road Trail Surface	New Off-Road Trail	New Bike Lane	
Whitefish to Sudbury	296.6	Graham Road to ATV/Snowmobile Trail		3.6						
	300.2	ATV/Snowmobile Trail to Blueberry Hill Road		0.5			0.5			
	300.7	Blueberry Hill Road to ATV/Snowmobile Trail		2.4		2.4				
	303.1	ATV/Snowmobile Trail to Ryan Street (Oja)		1.4			1.4			
	304.5	Ryan Street to Phil Street (crossing Old Highway 17)		0.5						
	305	Phil Street to multi-use trail		0.4						
	305.4	Multi-Use Trail to Simon Lake Park		0.5						
	305.9	Simon Lake Park to Ernest Street		0.2						
	306.1	Ernest Street to Simon Lake Drive		0.1						
	306.2	Simon Lake Drive to ATV/Snowmobile Trail		1.9						
	308.1	ATV/Snowmobile Trail to Old Soo Road		2.2			2.2			
	310.3	Old Soo Road to Regional Road 24		1.8						
	312.1	Regional Road 24 to Vermilion/Hillfield Trail		0.1						
	312.2	Vermilion/Hillfield Trall to Westview Crescent		0.2				0.2		
	312.4	Westview Crescent to Timothy Ave		0.6						
	313	Timothy Ave to Melvyn Ave		0.3						
	313.3	Melvyn Ave to Patricia Street		0.1						
	313.4	Patricia Street to Mikkola Road		0.5						
	313.9	Mikkola Road to Kantola Road		1.3						
	315.2	Kantola Road to Moxam Landing Road		2.1						
	317.3	Moxam Landing Road to Gibson Road		1						
	318.3	Gibson Road to Southview Drive		3.2		3.2				
	321.5	Southview Drive to Bouchard St.		4.4						
325.9	Bouchard St. to Regent Street		0.4							
326.3	Regent Street to Walford Road		0.4							
326.7	Walford Road to Ramsey View Ct.		0.4							
327.1	Ramsey View Ct. To Paris St. Path		0.9							
332.5	New -- Paris St Path to Ramsey Lake Rd		0.3				0.3			
328	Paris St Path to Bell Park Rd.		0.9							
328.9	Bell Park Rd to Bell Park Path		0.4							
329.3	Bell Park Path to Bell Park		0.5							
329.8	Bell Park, Sudbury									
Sub Totals				33.5	0	5.6	4.1	0.5	0	
Totals				369.93	69.5	48.7	6.5	5.2	3.1	

Legend	<div style="display: flex; flex-direction: column; gap: 5px;"> <div style="display: flex; align-items: center;"> <div style="width: 20px; height: 10px; background-color: #008000; margin-right: 5px;"></div> Off road trail or path, good surface </div> <div style="display: flex; align-items: center;"> <div style="width: 20px; height: 10px; background-color: #90EE90; margin-right: 5px;"></div> Off road trail or path, loose gravel/sand surface </div> <div style="display: flex; align-items: center;"> <div style="width: 20px; height: 10px; background-color: #90EE90; margin-right: 5px;"></div> On road or street, paved surface, low traffic volume </div> <div style="display: flex; align-items: center;"> <div style="width: 20px; height: 10px; background-color: #FFFF00; margin-right: 5px;"></div> On road or street, gravel/dirt surface, low traffic volume </div> <div style="display: flex; align-items: center;"> <div style="width: 20px; height: 10px; background-color: #FF8C00; margin-right: 5px;"></div> On road or street, paved surface & shoulder, occassional high traffic volume </div> <div style="display: flex; align-items: center;"> <div style="width: 20px; height: 10px; background-color: #FF0000; margin-right: 5px;"></div> On road or street, paved surface, no shoulder, consistent high traffic volume </div> </div>
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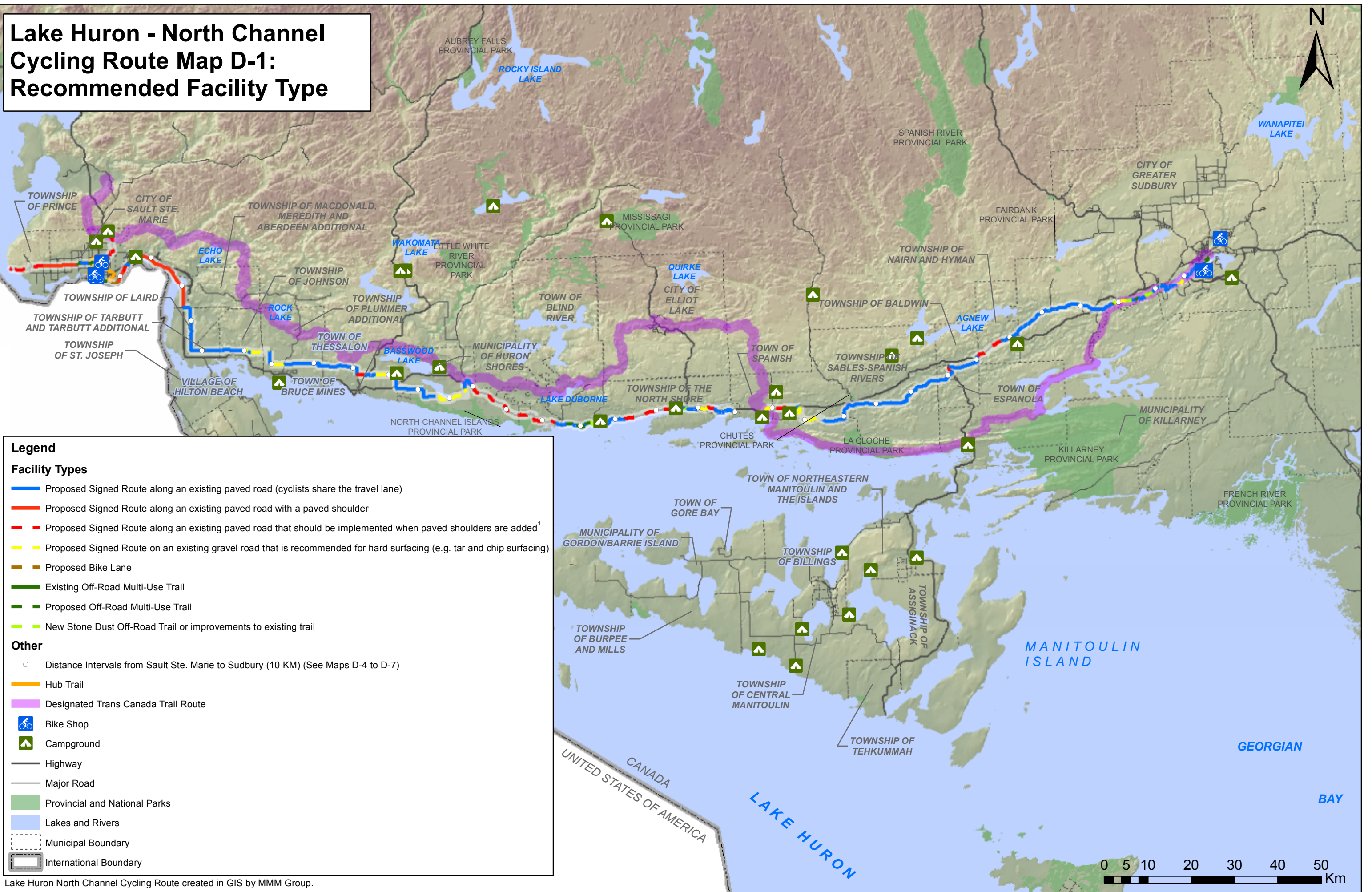
LAKE HURON

NORTH CHANNEL CYCLING ROUTE STUDY

APPENDIX D

IMPLEMENTATION MAPPING

Lake Huron - North Channel Cycling Route Map D-1: Recommended Facility Type



Legend

Facility Types

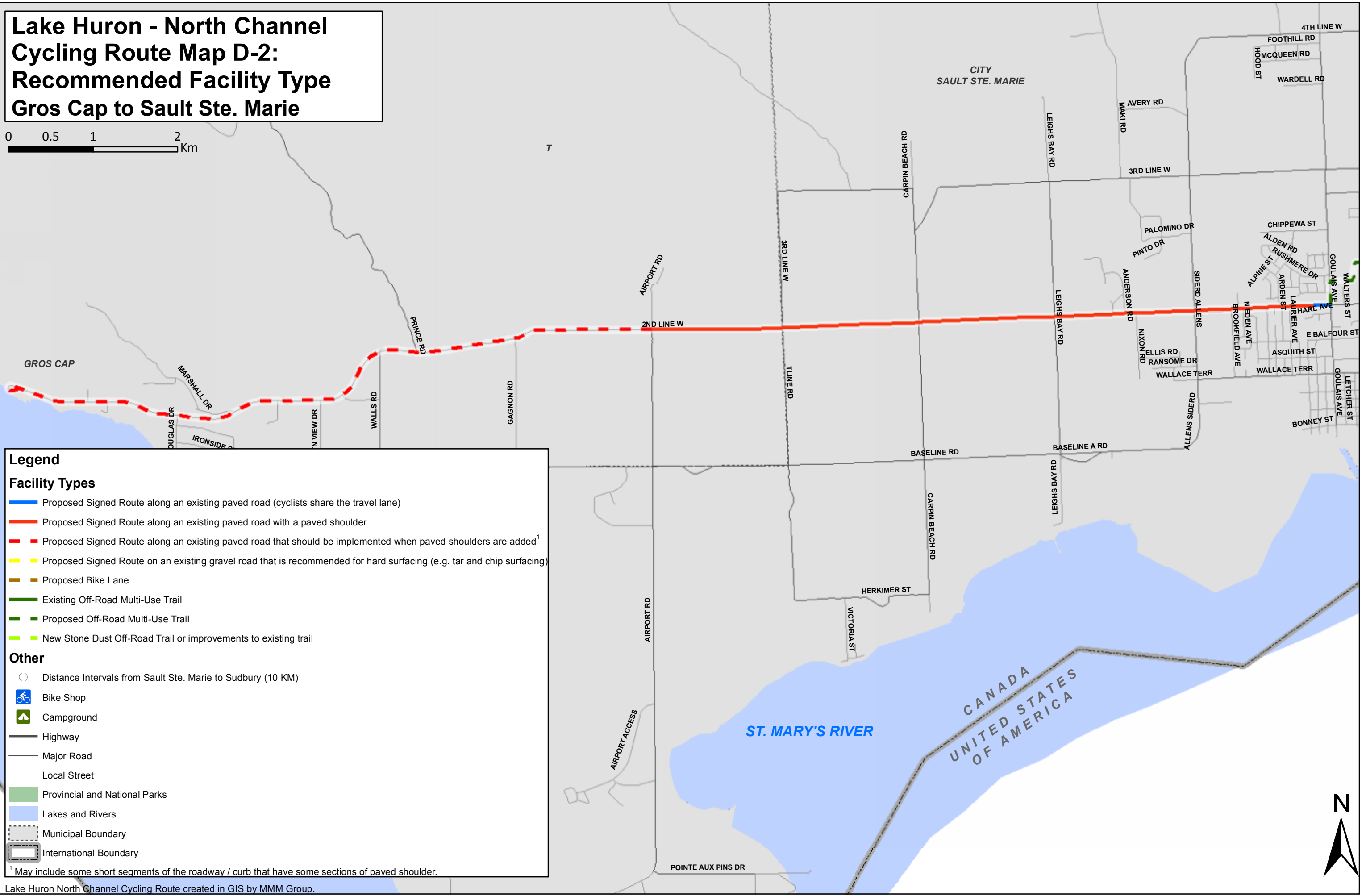
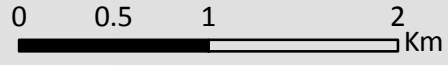
- Proposed Signed Route along an existing paved road (cyclists share the travel lane)
- Proposed Signed Route along an existing paved road with a paved shoulder
- Proposed Signed Route along an existing paved road that should be implemented when paved shoulders are added¹
- Proposed Signed Route on an existing gravel road that is recommended for hard surfacing (e.g. tar and chip surfacing)
- Proposed Bike Lane
- Existing Off-Road Multi-Use Trail
- Proposed Off-Road Multi-Use Trail
- New Stone Dust Off-Road Trail or improvements to existing trail

Other

- Distance Intervals from Sault Ste. Marie to Sudbury (10 KM) (See Maps D-4 to D-7)
- Hub Trail
- Designated Trans Canada Trail Route
- Bike Shop
- Campground
- Highway
- Major Road
- Provincial and National Parks
- Lakes and Rivers
- Municipal Boundary
- International Boundary

Lake Huron North Channel Cycling Route created in GIS by MMM Group.

Lake Huron - North Channel Cycling Route Map D-2: Recommended Facility Type Gros Cap to Sault Ste. Marie



Legend

Facility Types

- Proposed Signed Route along an existing paved road (cyclists share the travel lane)
- Proposed Signed Route along an existing paved road with a paved shoulder
- Proposed Signed Route along an existing paved road that should be implemented when paved shoulders are added¹
- Proposed Signed Route on an existing gravel road that is recommended for hard surfacing (e.g. tar and chip surfacing)
- Proposed Bike Lane
- Existing Off-Road Multi-Use Trail
- Proposed Off-Road Multi-Use Trail
- New Stone Dust Off-Road Trail or improvements to existing trail

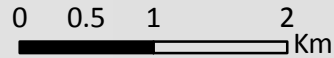
Other

- Distance Intervals from Sault Ste. Marie to Sudbury (10 KM)
- Bike Shop
- Campground
- Highway
- Major Road
- Local Street
- Provincial and National Parks
- Lakes and Rivers
- Municipal Boundary
- International Boundary

¹ May include some short segments of the roadway / curb that have some sections of paved shoulder.



Lake Huron - North Channel Cycling Route Map D-3: Recommended Facility Type Sault Ste. Marie to Hiawatha Highlands



Legend

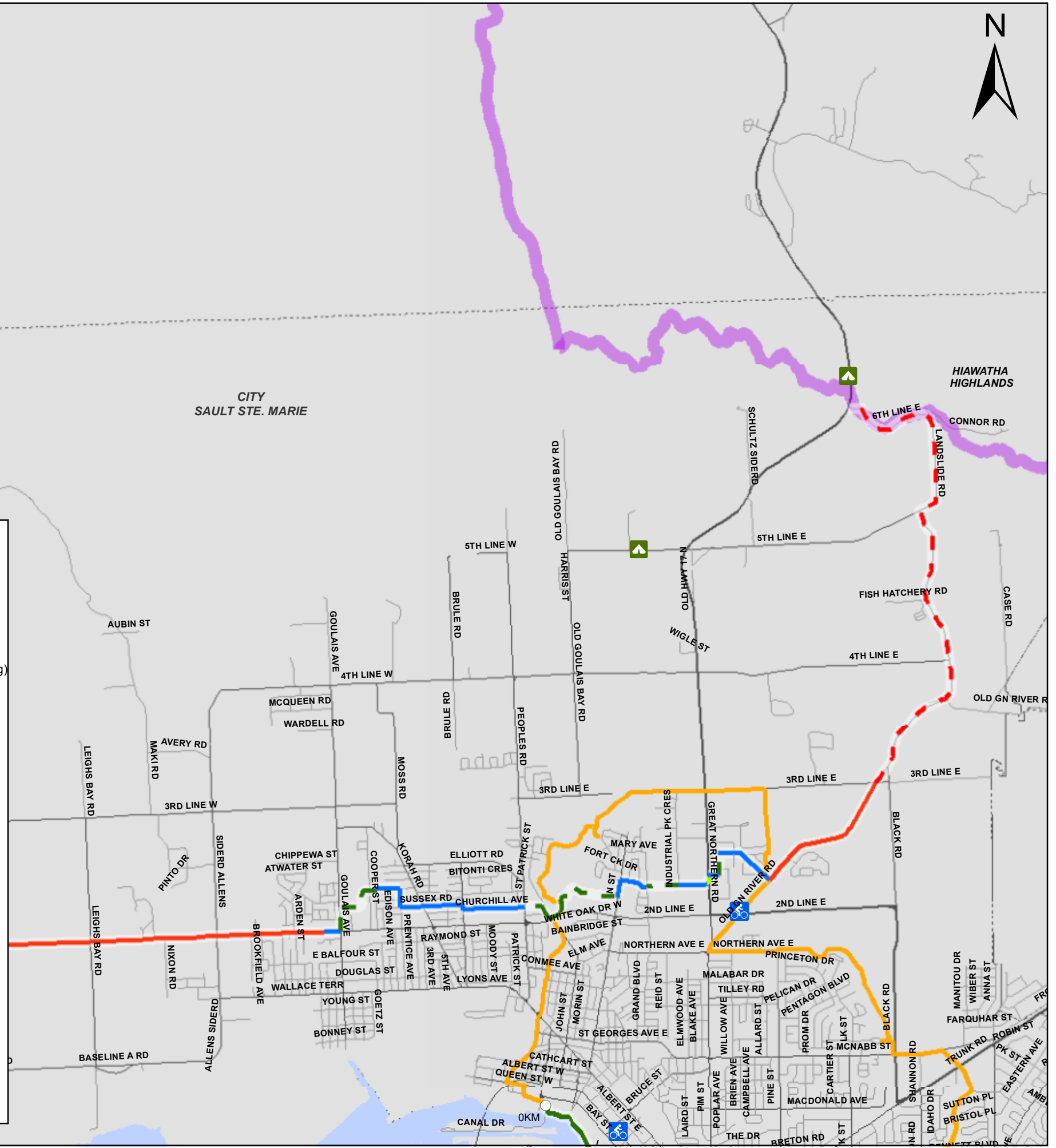
Facility Types

- Proposed Signed Route along an existing paved road (cyclists share the travel lane)
- Proposed Signed Route along an existing paved road with a paved shoulder
- - Proposed Signed Route along an existing paved road that should be implemented when paved shoulders are added¹
- Proposed Signed Route on an existing gravel road that is recommended for hard surfacing (e.g. tar and chip surfacing)
- Proposed Bike Lane
- Existing Off-Road Multi-Use Trail
- - Proposed Off-Road Multi-Use Trail
- New Stone Dust Off-Road Trail or improvements to existing trail

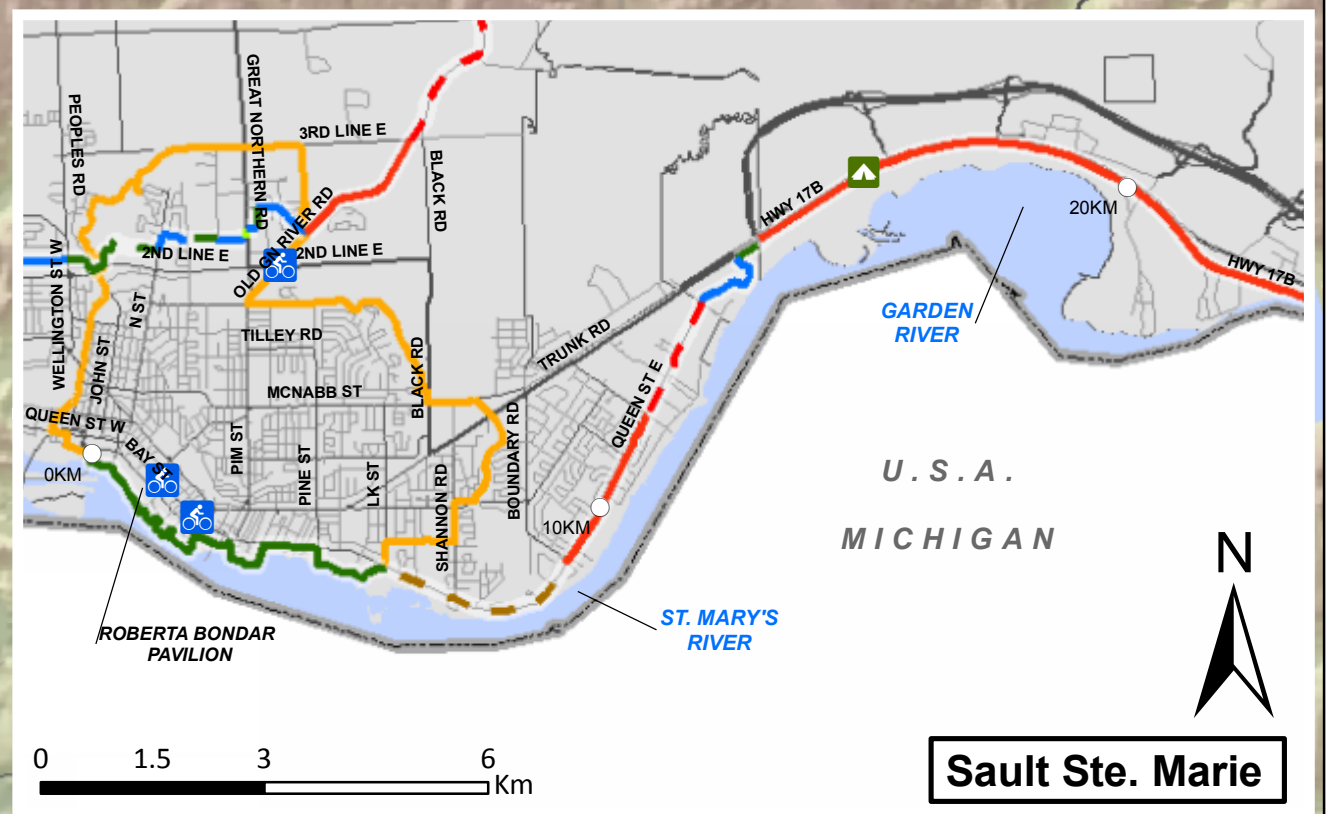
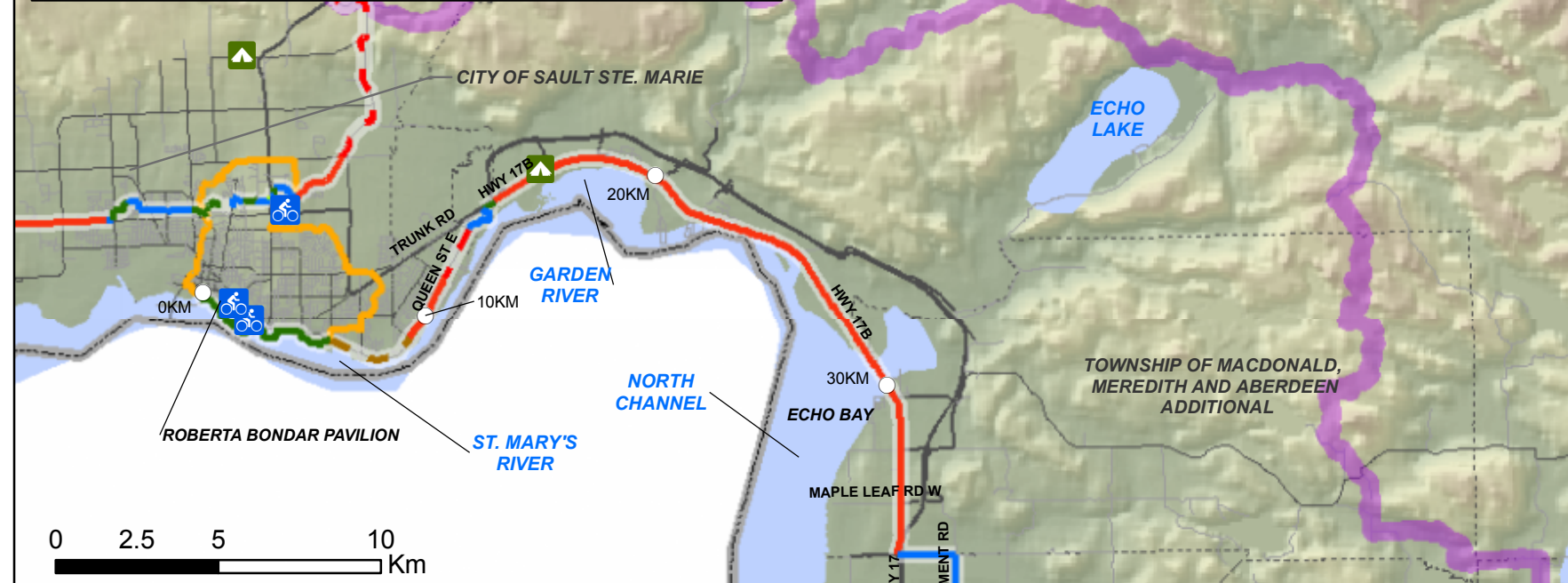
Other

- Distance Intervals from Sault Ste. Marie to Sudbury (10 KM)
- Hub Trail
- Designated Trans Canada Trail Route
- Bike Shop
- Campground
- Highway
- Major Road
- Local Street
- Lakes and Rivers
- Provincial and National Parks
- Municipal Boundary
- International Boundary

¹ May include some short segments of the roadway / curb that have some sections of paved shoulder.



Lake Huron - North Channel Cycling Route Map D-4: Recommended Facility Type Sault Ste. Marie to Huron Shores



Legend

Facility Types

- Proposed Signed Route along an existing paved road (cyclists share the travel lane)
- Proposed Signed Route along an existing paved road with a paved shoulder
- - Proposed Signed Route along an existing paved road that should be implemented when paved shoulders are added¹
- Proposed Signed Route on an existing gravel road that is recommended for hard surfacing (e.g. tar and chip surfacing)
- Proposed Bike Lane
- Existing Off-Road Multi-Use Trail
- - Proposed Off-Road Multi-Use Trail
- New Stone Dust Off-Road Trail or improvements to existing trail

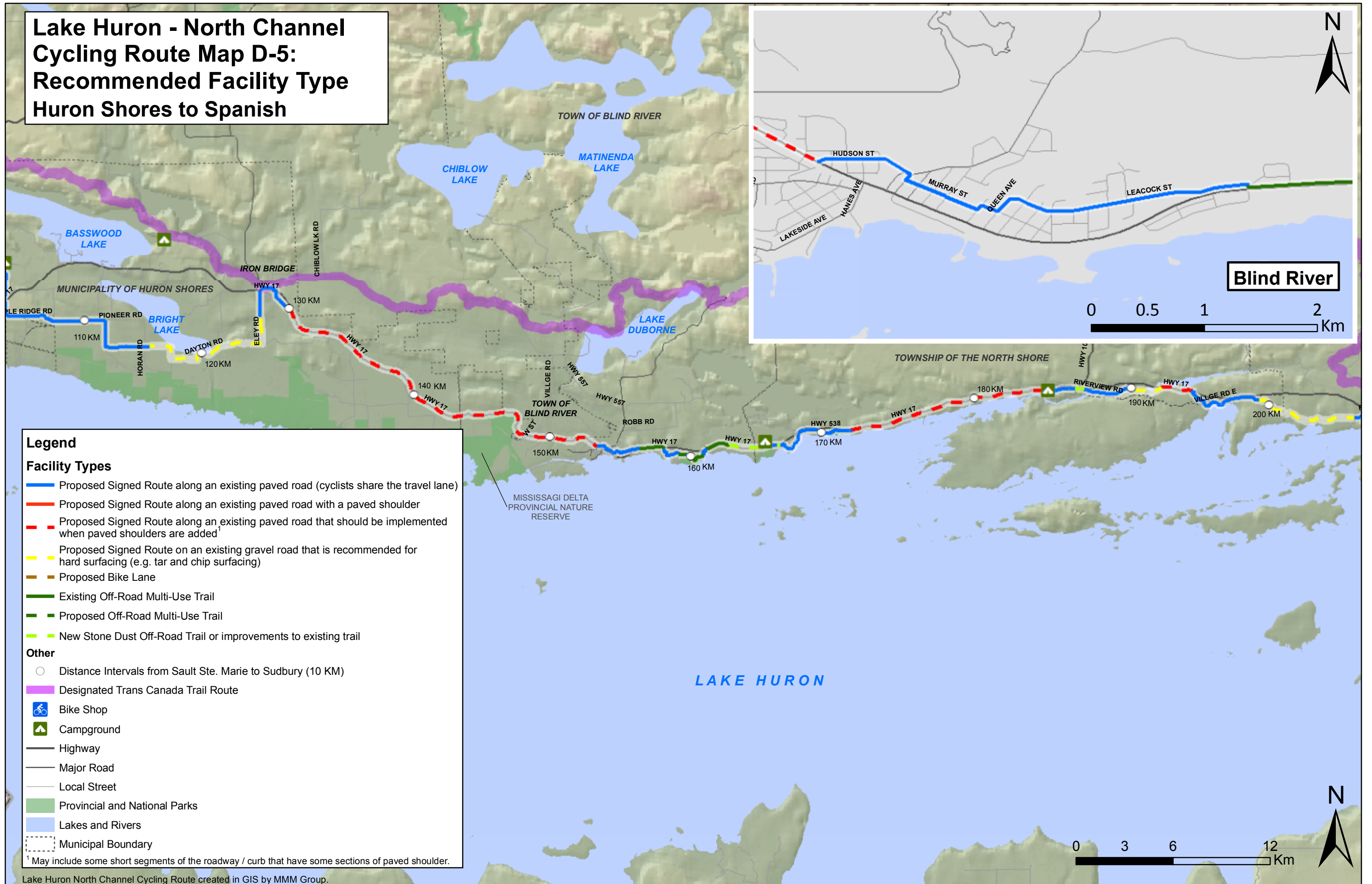
Other

- Distance Intervals from Sault Ste. Marie to Sudbury (10 KM)
- Hub Trail
- Designated Trans Canada Trail Route
- Bike Shop
- Campground
- Highway
- Major Road
- Local Street
- Provincial and National Parks
- Lakes and Rivers
- Municipal Boundary

¹ May include some short segments of the roadway / curb that have some sections of paved shoulder.



Lake Huron - North Channel Cycling Route Map D-5: Recommended Facility Type Huron Shores to Spanish



Legend

Facility Types

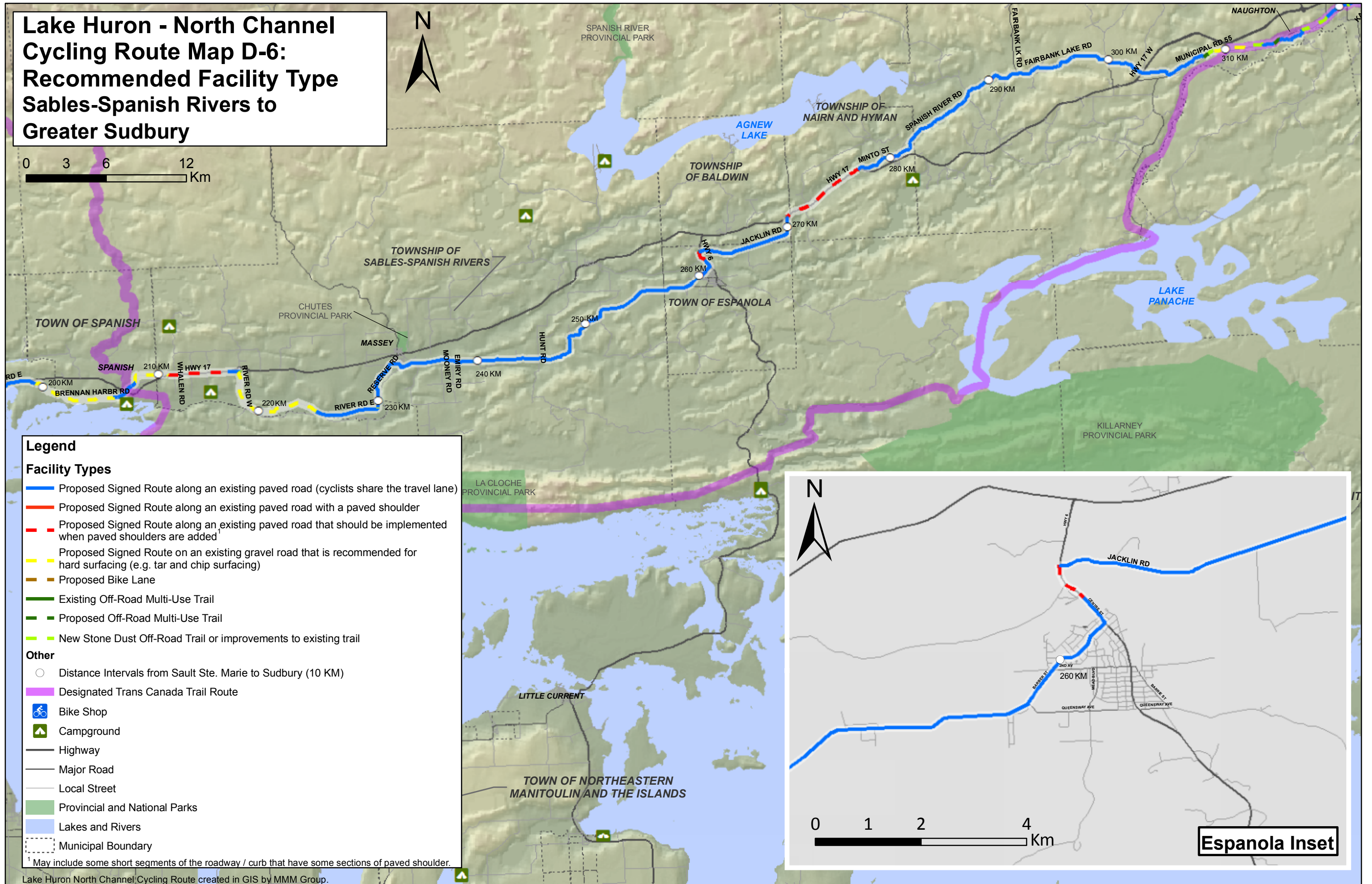
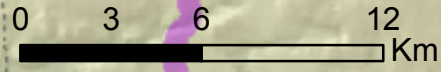
- Proposed Signed Route along an existing paved road (cyclists share the travel lane)
- Proposed Signed Route along an existing paved road with a paved shoulder
- - Proposed Signed Route along an existing paved road that should be implemented when paved shoulders are added¹
- - Proposed Signed Route on an existing gravel road that is recommended for hard surfacing (e.g. tar and chip surfacing)
- - Proposed Bike Lane
- Existing Off-Road Multi-Use Trail
- - Proposed Off-Road Multi-Use Trail
- - New Stone Dust Off-Road Trail or improvements to existing trail

Other

- Distance Intervals from Sault Ste. Marie to Sudbury (10 KM)
- Designated Trans Canada Trail Route
- 🚲 Bike Shop
- 🏕️ Campground
- Highway
- Major Road
- Local Street
- Provincial and National Parks
- Lakes and Rivers
- Municipal Boundary

¹ May include some short segments of the roadway / curb that have some sections of paved shoulder.

Lake Huron - North Channel Cycling Route Map D-6: Recommended Facility Type Sables-Spanish Rivers to Greater Sudbury



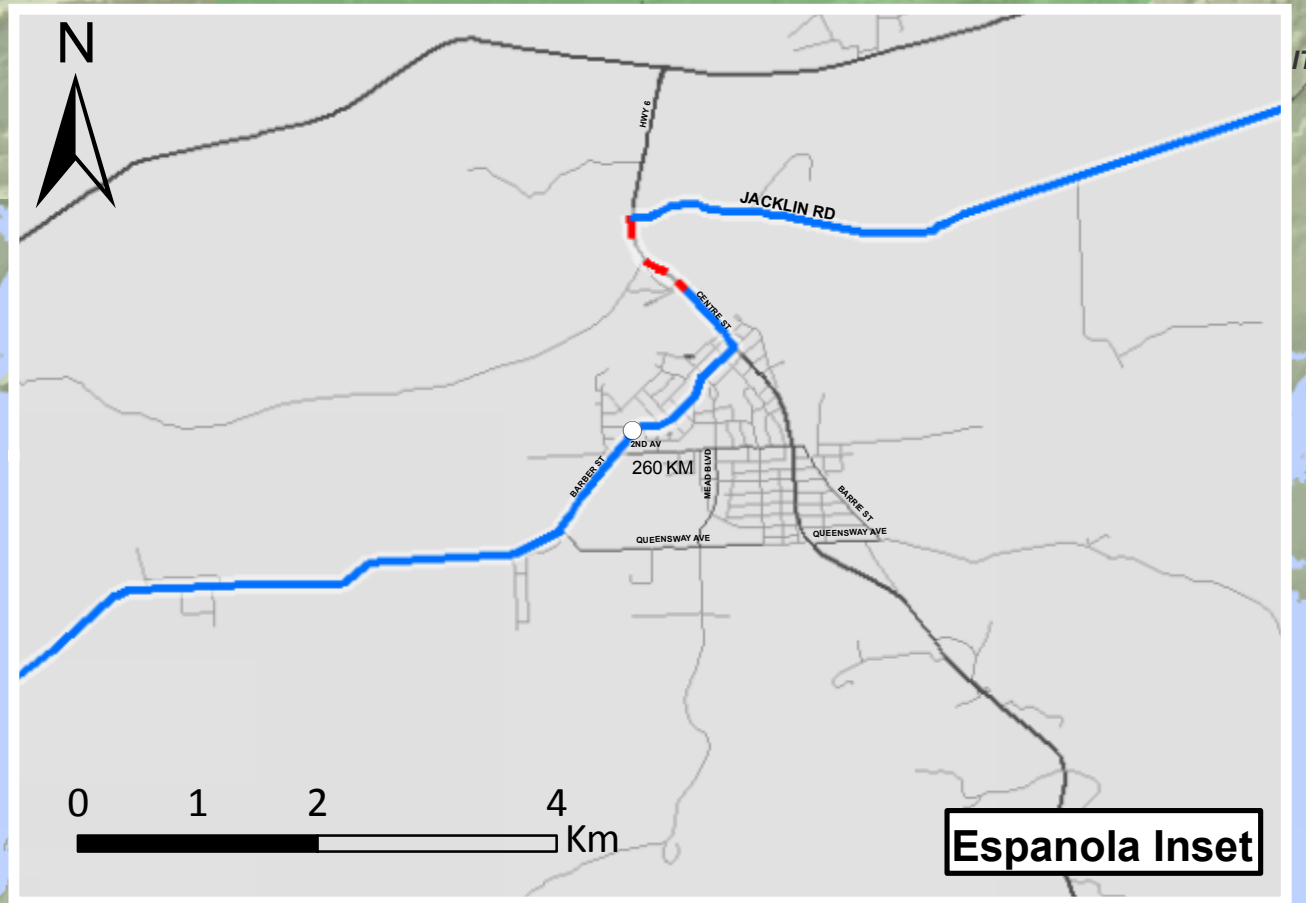
Legend

Facility Types

- Proposed Signed Route along an existing paved road (cyclists share the travel lane)
- Proposed Signed Route along an existing paved road with a paved shoulder
- - Proposed Signed Route along an existing paved road that should be implemented when paved shoulders are added
- Proposed Signed Route on an existing gravel road that is recommended for hard surfacing (e.g. tar and chip surfacing)
- Proposed Bike Lane
- Existing Off-Road Multi-Use Trail
- - Proposed Off-Road Multi-Use Trail
- New Stone Dust Off-Road Trail or improvements to existing trail

Other

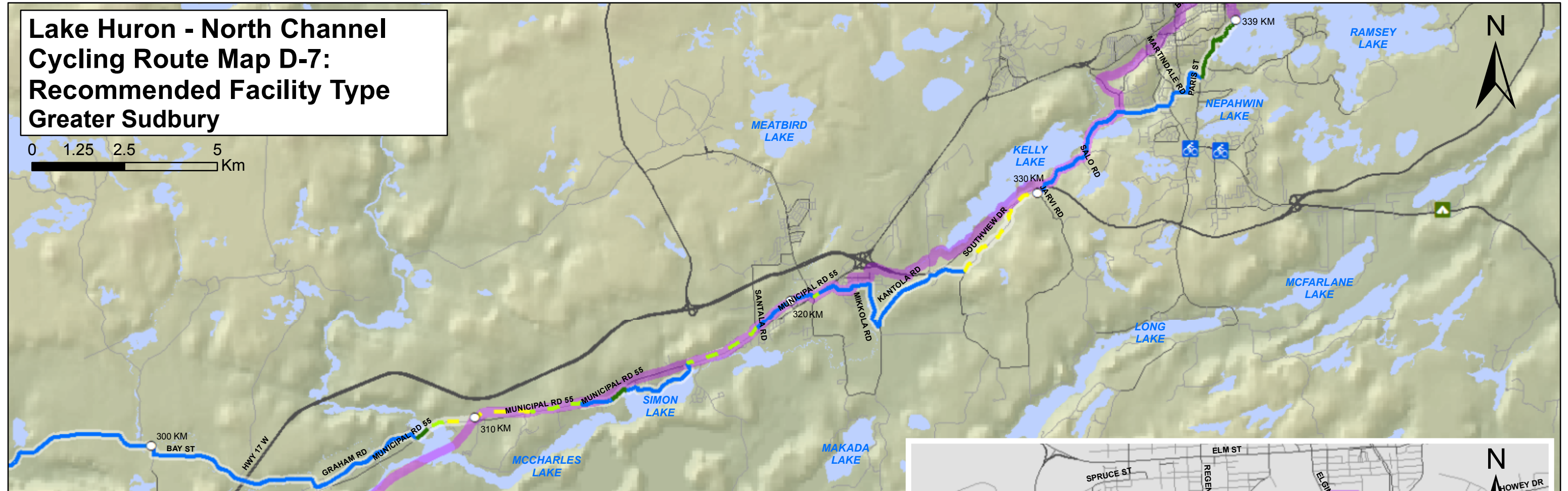
- Distance Intervals from Sault Ste. Marie to Sudbury (10 KM)
- Designated Trans Canada Trail Route
- Bike Shop
- Campground
- Highway
- Major Road
- Local Street
- Provincial and National Parks
- Lakes and Rivers
- Municipal Boundary



¹ May include some short segments of the roadway / curb that have some sections of paved shoulder.

Lake Huron North Channel Cycling Route created in GIS by MMM Group.

Lake Huron - North Channel Cycling Route Map D-7: Recommended Facility Type Greater Sudbury



Legend

Facility Types

- Proposed Signed Route along an existing paved road (cyclists share the travel lane)
- Proposed Signed Route along an existing paved road with a paved shoulder
- - Proposed Signed Route along an existing paved road that should be implemented when paved shoulders are added¹
- Proposed Signed Route on an existing gravel road that is recommended for hard surfacing (e.g. tar and chip surfacing)
- Proposed Bike Lane
- Existing Off-Road Multi-Use Trail
- - Proposed Off-Road Multi-Use Trail
- New Stone Dust Off-Road Trail or improvements to existing trail

Other

- Distance Intervals from Sault Ste. Marie to Sudbury (10 KM)
- Designated Trans Canada Trail Route
- Bike Shop
- Campground
- Highway
- Major Road
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¹ May include some short segments of the roadway / curb that have some sections of paved shoulder.

