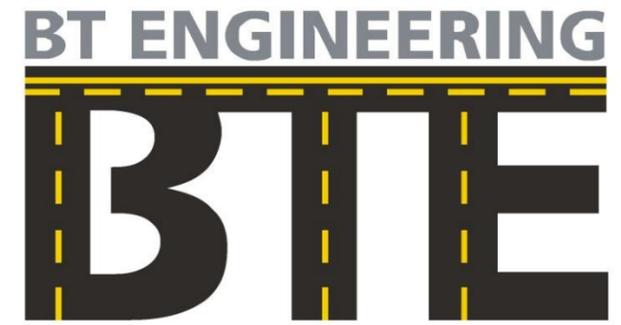




Active Transportation Master Plan





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June 2017

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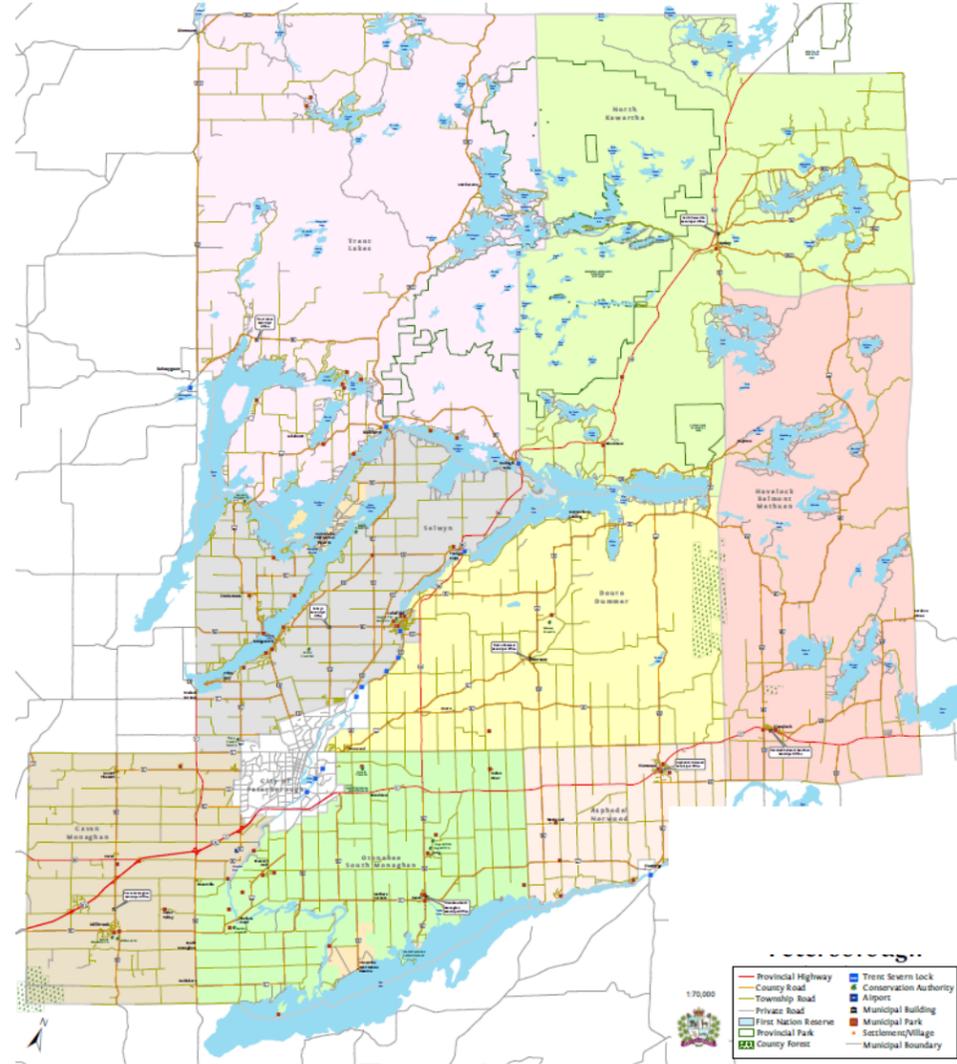
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INTRODUCTION

The 2014 Transportation Master Plan (TMP) developed a conceptual active transportation/cycling network for Peterborough County that identified both on-road and off-road (trail) active transportation facilities. This was a coarse network based on the existing trails and off-road routes located in Peterborough County and the City of Peterborough. However, that plan was conceptual and has been refined in coordination with municipalities and stakeholders as part of developing a County-wide Active Transportation Master Plan (ATMP).



County of Peterborough

This ATMP report provides an outline of a staged plan for programs, policies and projects which will promote Active Transportation (AT). AT is defined by the Public Health Agency of Canada to be: *“any form of human-powered*

transportation (such as) walking, cycling, using a wheelchair, in-line skating or skateboarding.”

Vision Statement

“To promote leadership and community partnerships that make the County of Peterborough and its lower tier municipalities healthy, prosperous and sustainable, with active transportation as a key component of a safe, accessible, integrated transportation system linking where we live, work and play.”

In partnership with area municipalities and in consultation with area stakeholders, the study developed and reviewed potential programs, policies and projects to promote AT and safety throughout the County. Benefits of the plan’s implementation have been identified to also include:



- Opportunities to promote eco-tourism in support of area businesses;
- Healthier lifestyles as increased physical activity leads to a significant improvement in a number of health indicators;
- Decreased emissions of greenhouse gases with a reduced reliance on motor vehicles; and
- With increased levels of cycling and walking, potential to reduce or eliminate the need for expensive and potentially environmentally damaging new or upgraded transportation facilities to accommodate motorized traffic.



The ATMP is proposed as a living document that will serve as a general guide and will evolve over time to satisfy changing needs, opportunities and priorities within the County of Peterborough and the broader Central Ontario Region.

The County of Peterborough 2014 TMP identified the promotion of cycling and walking as an important measure to increase the well-being and sustainability of a community. The ATMP provides the documentation of the plan.

TOURISM

Ontario is in the process of implementing a cycling strategy “CycleON” to promote cycling across the province, and have unveiled the province’s first cycling tourism plan “Tour by Bike”.

Tourism is a vital part of the County of Peterborough’s economy. The physical geography and the cultural and historical landscape attractions throughout the County combined with an “Open for AT Business” program create opportunities for Peterborough County to:

- Capitalize on the rapid growth in cycling tourism that Ontario has been experiencing
- Benefit from growing interest in healthy and active lifestyles
- Promote and expand existing paddling routes
- Build upon Provincial Initiatives #CycleON and #PaddleON
- Support local businesses and communities that thrive on the tourist industry
- Establish or expand partnerships with organizations that include area businesses, Trent-Severn Waterway, area cycling, and hiking and paddling clubs

The ATMP would provide further support for Peterborough & the Kawarthas Economic Development’s promotion of tourism. Outdoor activities/adventures is identified as the number one activity for visitors to the area.



peterborough
&
THE KAWARTHAS

**TOURISM
TRAVEL
FACTS**

PRIMARY ACTIVITIES



#1
OUTDOORS



#2
PARKS



#3
HISTORIC

Next to
transportation



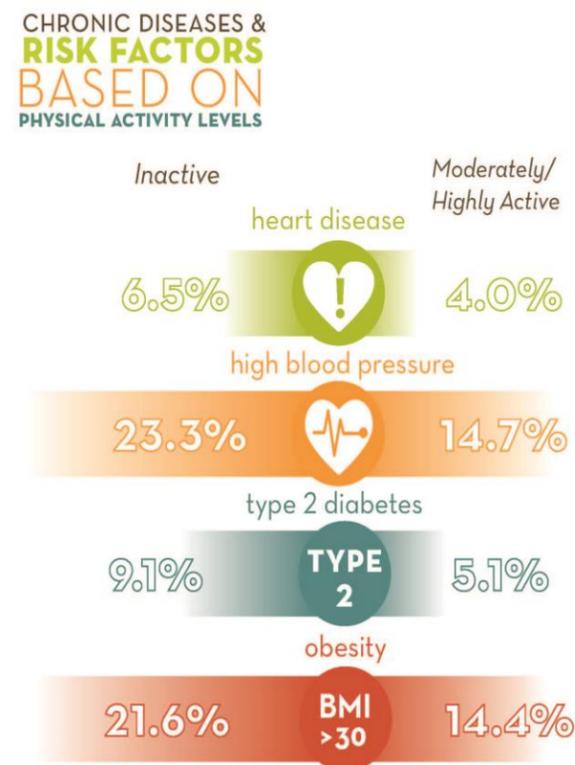
visitors spend the most
on **Food & Beverage**

Businesses around Ontario are benefiting from the tourist dollars being generated by active transportation. In surveys completed for Cycle Tourism Reports in Prince Edward County, Essex County and Halton Region, 40% to 63% of businesses indicated cyclists were either a ‘core’ or ‘regular’ part of their business.

Source: Stats Canada, Travel Survey of the Residents of Canada 2013, International Travel Survey 2013, Ontario Ministry of Tourism, Culture & Sport.

HEALTH

The Canadian Association of Physicians for the Environment has identified that “chronic diseases such as heart disease and diabetes are rising across Canada at alarming rates.” The health benefits of physical activity; reducing the risk of heart disease, high blood pressure, diabetes and obesity; are clear and well known. Most Canadians however, are not physically active enough to achieve those benefits which results in billions of dollars in additional health care costs in Canada annually. Many people are too busy to find time to exercise by going to the gym or participating in sports, but using active modes of transportation builds that physical activity into our everyday life. Each hour per week of moderate or vigorous physical activity, such as walking or cycling, is associated with a 4%-9% reduction in the risk of death from all causes.

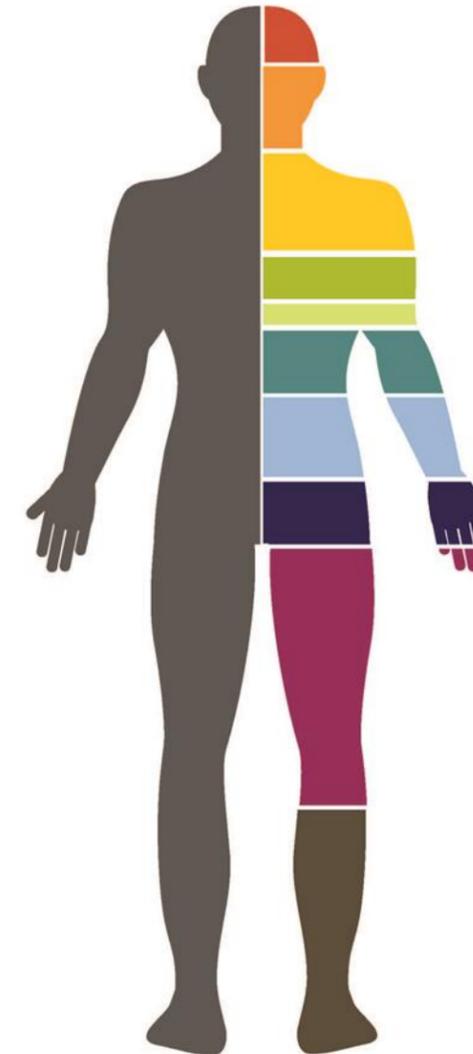


Canadian Community Health Survey, 2011/2012

Cycling, walking, and other active modes of transportation offer an opportunity to become physically active while completing travel trips that may otherwise have relied on an automobile.

Any programs, policies and projects that result in an increase in the number, frequency and duration of trips using active modes of transportation will result in a corresponding improvement in health indicators, a reduction in health care costs to society and an overall reduction in premature death.

HEALTH BENEFITS OF PHYSICAL ACTIVITY



- Older adults who are physically active are almost 40% less likely to develop **ALZHEIMER'S DISEASE** than those who are physically inactive.¹
- Engaging in physical activity can impact **MENTAL HEALTH**:
 - Decreases in:
 - Depression
 - Anxiety
 - Stress
 - Panic Disorders²
 - Increases in:
 - Self-Esteem³
 - Mood⁴
 - Happiness
 - Satisfaction⁵
- Active commuting has been associated with significant reductions in the risk of **BREAST CANCER**.⁶
- Active commuting has been shown to reduce the incidence of **HEART DISEASE AND STROKE**.^{7,8}
- Physical activity reduces **HIGH BLOOD PRESSURE**.⁷
- Regular physical activity, along with healthy eating and weight control, can reduce **TYPE 2 DIABETES** incidence by 60%.⁹
- People who use active transportation are at lower risk of being **OBESSE**.¹⁰
- Physical activity has been associated with a 24% reduction in risk of **COLON CANCER**.¹¹
- Physical activity increases **MUSCULAR STRENGTH, ENDURANCE AND FLEXIBILITY**.¹³
- Physical activity has been shown to help build bone mass and decrease risk of **OSTEOPOROSIS**.¹²

Active transportation can be the preventative medicine that fosters better personal health. The World Health Organization has identified promotion of active modes of transportation, such as walking and cycling, to be one of the few policy decisions that have the potential to significantly reduce chronic diseases.

Note: Health statistics and graphics presented on this page are sourced from the 2014 Active Transportation & Health Indicators Report, produced by Peterborough Public Health, GreenUP, and the City of Peterborough

SAFETY

Regular physical activity such as walking and cycling can have a substantial impact on improving health and life expectancy. Ontarians, however, not only need to walk and cycle, they need to be able to walk and cycle safely. One of the greatest obstacles to promoting active transportation and increased walking and cycling can be a perceived lack of safety for pedestrians and cyclists. MTO data shows that the largest proportion of vehicle collisions with cyclists and pedestrians (over 65%) occurs at intersections.



Concern for the safety of pedestrians and cyclists led the Office of the Chief Coroner for Ontario to complete a Pedestrian Death Review and a Cyclist Death Review. The Pedestrian Death Review, released in June 2012, identified:

- Pedestrians over 65 years of age accounted for a disproportionate share of pedestrian fatalities (13.2% of the population but 36% of the fatalities)
- Peak hours for pedestrian collisions were between 2:00 pm and 10:00 pm, largely coinciding with peaks in traffic volumes
- 76% of pedestrian fatalities occurred in urban areas and 24% in rural areas
- Five circumstances accounted for 70% of pedestrian deaths:
 - Pedestrians hit at a mid-block location while crossing (31%)
 - Pedestrians hit on the sidewalk and/or shoulder of the road (14%)
 - Vehicle going straight through the intersection while the pedestrian crossed without right-of-way (11%)

The Pedestrian Death Review recommendations included:

- That a “Complete Streets” approach be adopted to guide development. Complete Streets should be designed to be safe, convenient and comfortable for every user regardless of travel mode, physical ability or age.
- Proposed amendments to the Highway Traffic Act including allowing municipalities to erect non-signalized pedestrian crossings in midblock areas.

Bicycle Helmets – “Don’t ride without one.” Wearing a helmet remains one of the most important actions that a cyclist can take to reduce their risk of serious injury.

Note: The 2014 Peterborough City and County Active Transportation and Health Indicators Report contains a more complete review of cyclist and pedestrian injury and death in Peterborough County

The Cycling Death Review found that of the fatalities:

- 86% were male
- 78% were struck by an automobile
- 65% occurred in urban environments
- 53% occurred during daylight conditions

Recommendations from the Cycling Death Review included:

- Adoption of a “Complete Streets” approach focused on the safety of all road users
- A comprehensive cycling safety public awareness and education strategy
- Establishing a “one-metre” rule for vehicles passing cyclists
- Prioritizing the development of paved shoulders on provincial highways



Credit: Peterborough Public Health

Research shows that there are two main requirements to improve the safety of pedestrians and cyclists:

- 1) Designated pedestrian and cyclist infrastructure that is safe and designed to enhance the users experience; and
- 2) More pedestrians and cyclists to create a “safety in numbers” effect.

ENVIRONMENT

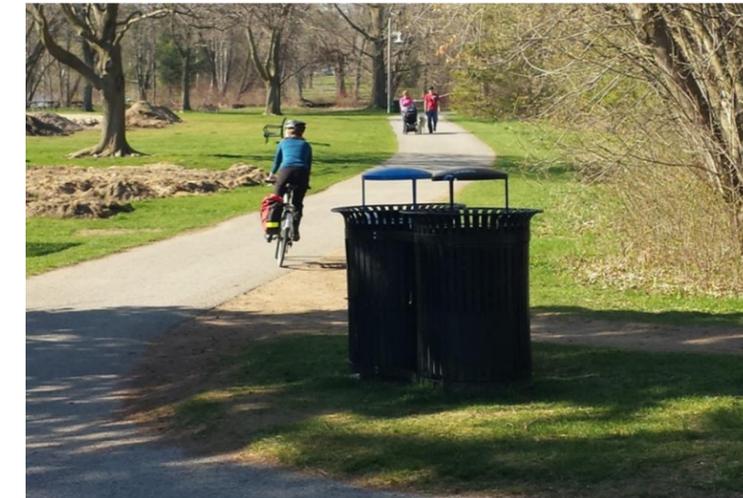
The County of Peterborough’s Climate Change Action Plan identifies that in 2011, 27% of Peterborough County’s Greenhouse Gas (GHG) emissions resulted from transportation. The Climate Change Action Plan was adopted by Council in January 2017. The plan is aiming to achieve a 31% reduction in GHG emissions from the 2011 baseline.

Active transportation while important might play only a nominal role in Peterborough County to help meet the climate change targets currently being set by all levels of government. An average car releases approximately 0.85 kg of CO₂ per kilometre compared to active transportation that releases virtually none. A 2004 nation-wide survey completed by York University identified that 84% of respondents would like to walk more and 64% would like to cycle more often. Investment in active transportation infrastructure for pedestrians and cyclists is required if our reliance on the automobile is to be reduced.

Building an active transportation network is identified as Strategy M1 of the Climate Change Action Plan to reduce GHG emissions and the use of fossil fuels. The Action Plan identifies however that recreational cycling and hiking is expected to be a main focus for active transportation in the County. Active recreational activities would have less of an impact on GHG emissions than reducing use of the automobile for work, school or other purpose trips.

The Climate Change Action Plan identifies that the potential for future transit service within the County and reducing the frequency of single occupant vehicles have a greater potential to reduce GHG emissions. The importance of active transportation as a component in achieving climate change goals should not be underestimated. It is noted that:

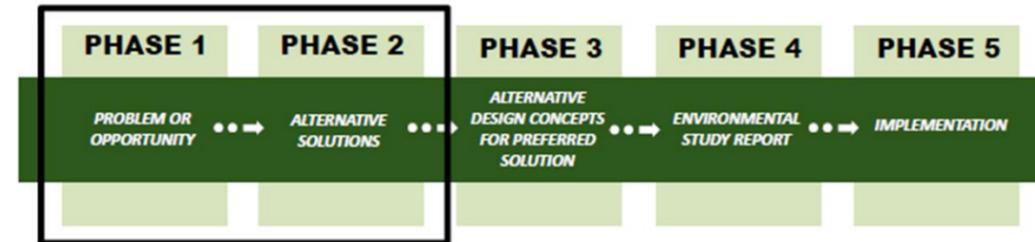
- To achieve increased use of transit, every transit trip begins and ends as a pedestrian.
- By providing a safe environment for pedestrians and cyclists, walking and cycling become a more viable mode alternative for short car trips to school or the neighbourhood store
- Recreational active transportation may not replace resident’s daily travel requirements but it typically will still consume far less energy than many other recreational alternatives.
- As the number of “enthused and confident” recreational cyclists within the County continues to increase, cycling will also become a more viable mode alternative for other purpose trips.



Active Transportation is good for the planet. Improved air quality and reduced greenhouse gas (GHG) emissions are among the benefits of Active Transportation

STUDY PROCESS

The study was undertaken as a Master Plan according to the Municipal Engineers Association Class Environmental Assessment (EA) and satisfies Phases 1 and 2 of the Class EA Process.



Master Plans are long range plans which integrate infrastructure requirements for existing and future conditions with environmental assessment planning principles. The ATMP was initiated in November 2015. BT Engineering (BTE) was retained by the County of Peterborough to develop a comprehensive Master Plan that would accomplish the following:

- Identify potential **projects** in the form of AT links, including the expansion and improvement of existing infrastructure as well as recommending new trail and roadway facilities, culminating in an AT Network;
- Identify potential **policies** that can foster and increase the share of trips made by active modes throughout the County; and
- Identify potential **programs** that can improve safety, awareness, and education of AT as a safe and healthy way of getting around in Peterborough County.



The Study was guided by a Technical Advisory Committee (TAC) that included representatives from:

- County of Peterborough
- City of Peterborough
- Local Municipalities: Municipality of Trent Lakes; Townships of; Selwyn, Asphodel-Norwood, Cavan Monaghan, Douro-Dummer, Havelock-Belmont-Methuen, North Kawartha, Otonabee-South Monaghan
- Peterborough Public Health
- Peterborough Economic Development
- Parks Canada
- Ministry of Transportation Ontario (MTO)

- Accessibility Advisory Committee
- ORCA

Phase 1 included a comprehensive review of background studies, reports and existing infrastructure and mapping provided by the County related to AT. Phase 1 culminated in the production and distribution of the **Study Design** report, which can be found in **Appendix A**. The Study Design defined the vision, objectives, consultation strategy and summarized existing routes and background study material.



Phase 2 implemented the Study Design. The TAC, with input from local cycling clubs, key stakeholder groups and the general public, developed the following:

- A long list of potential projects utilizing a variety of AT infrastructure for public review and comment; and
- A draft list of potential policies and programs.

Candidate projects were rated for performance by local cyclists and AT enthusiasts under three key evaluation criteria: “Desire Lines for Pedestrians”, “Desire Lines for Cyclists” and “Promote Public Health”.

The long list of projects was then evaluated and ranked using the Multi-Attribute Trade-Off System (MATS). The methodology and technical evaluation is detailed in **Appendix B**.

Phase 2 culminated in the following:

- Ultimate Active Transportation Network;
- Initial Active Transportation Projects;
- Recommended Policies and Programs; and
- The Active Transportation Master Plan (this report).

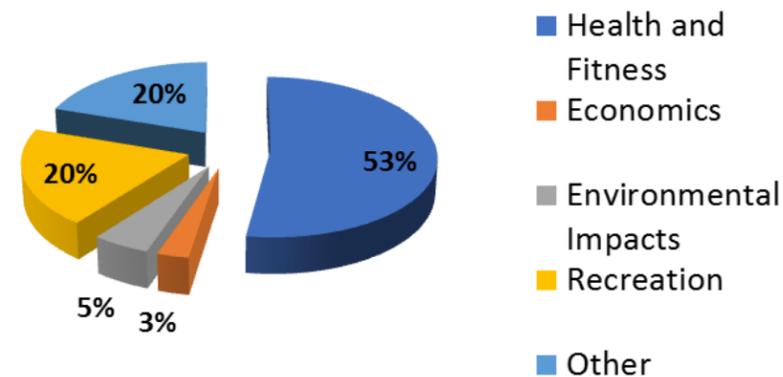
CONSULTATION

The ATMP was completed following the Municipal Class Environmental Assessment Phases 1 and 2 by establishing the need and justification for the project, considering all reasonable alternatives with acceptable effects on the natural, social and cultural environments, and proactively involving the public in defining a recommended plan for improvements.

On-Line Survey

An on-line survey was conducted through June and July 2016 to reach out to a broader spectrum of the County. The survey was used to help identify the profile of AT enthusiasts and their attitudes and opinions. Among the survey responses, health and fitness was identified to be the leading motivator for AT.

Motivation to Walk or Cycle



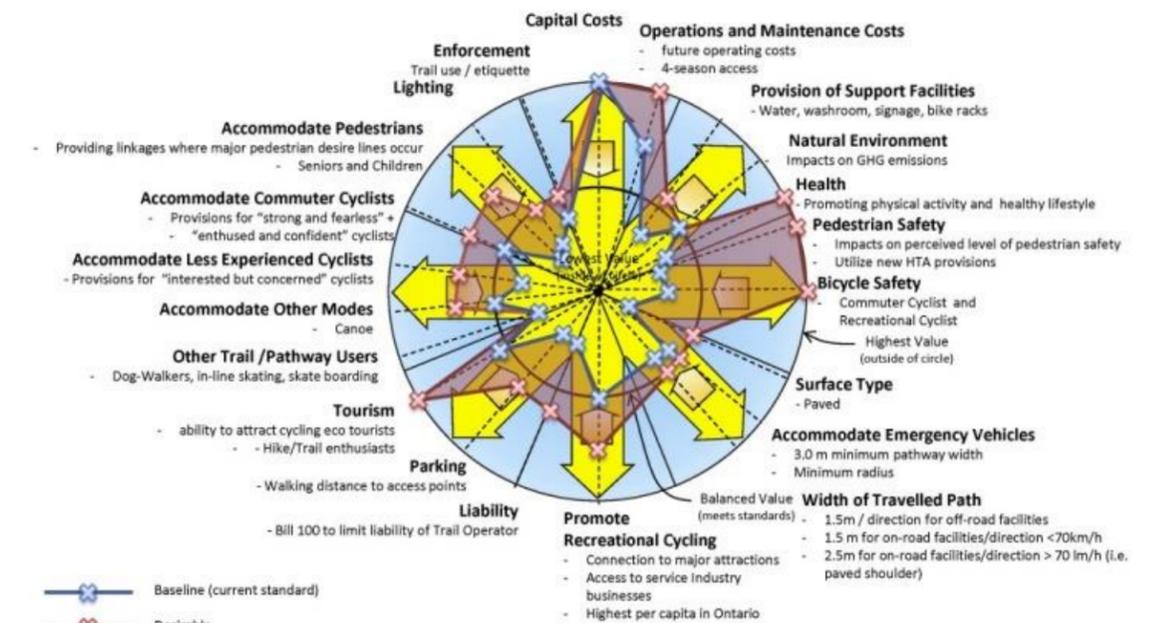
Community Café Event

The Community Café was an initial informal event to facilitate conversation by providing participants with a comfortable and welcoming environment. The event was organized to create a network of dialogue about issues that matter to the stakeholders and community. The meeting was held in March 2016 at the Lakefield-Smith Community Centre.



Value Planning Workshop

The Value Planning (VP) Workshop was used to review the needs, issues, priorities and feasible alternatives as an initial step in the development of the ATMP.



Methods to proactively involve the public included: distribution of a Study Design, an on-line survey, Community Café, Value Planning Workshop, Technical Advisory Committee, two Public Information Centres (PICs), Evaluation Workshop and use of Social Media platforms

CONSULTATION

Public Information Centres (PIC's)

The first PIC was held at the Peterborough Pulse festival in July 2016 to reach as many members of the public as possible. Approximately 1000 people were reached through this event. Each person was encouraged to provide written responses to issues or concerns.



The second PIC was held at the Lakefield-Smith Community Centre in March 2017. The feedback received on the importance of active transportation and the proposed projects, policies and programs was positive. The safety of cyclists was recognized to be a concern that would be addressed through the implementation of infrastructure improvements.



Evaluation Workshop

Area stakeholders, with previous study involvement, were consulted to assist in the evaluation by providing their input into the benefits of specific projects related to the connectivity for pedestrians and cyclists and their ability to promote public health.



Stakeholders included:

- Peterborough Cycling Club
- Biker Babes
- Cycle Dudes
- Peterborough Bicycle Advisory Committee
- Peterborough Council on Aging
- Selwyn Trails Committee
- GreenUP
- North Kawartha Cycling
- B!ke
- Ganaraska Hiking Trail Association
- Lakefield Trail Committee
- Peterborough-Hastings Trans Canada Trail Association

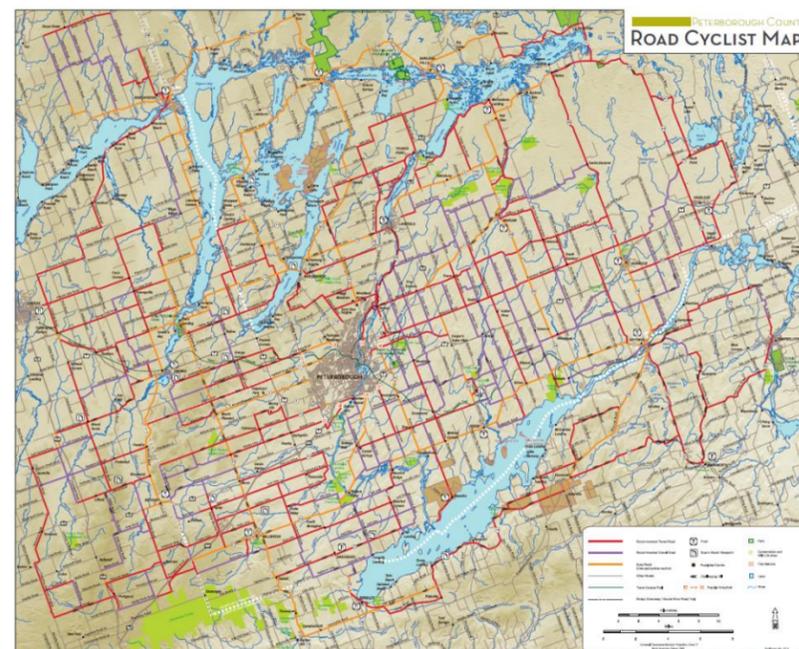
A copy of the Study Design Report is provided in **Appendix A** and the Value Planning Report and PIC reports are provided in **Appendix C**. Select Correspondence, including dialogue with members of the public and agencies, is included in **Appendix C**.

EXISTING FACILITIES

The County of Peterborough is an area that is largely rural in nature and extends over approximately 3,800 square kilometres with a population of over 56,000 people. Previous studies including the Active Transportation and Health – Indicators Report have noted that demands for AT across the region are continuing to increase. To accommodate this increasing demand, more sidewalks are being provided by the lower tier municipalities within the urban areas. A growing number of multi-use trails serving as linkages to area communities have been developed. These include:

- Trans Canada Trail
- Lakefield – Peterborough Rotary Greenway Trail
- B.E.L.Rotary Bridgenorth Trail
- Victoria Rail Trail
- Harold Town Conservation Area
- Millbrook Valley Trails
- Warsaw Caves Conservation Area
- Ganaraska Hiking Trails
- Adam and Eve Trail
- Lakefield Trail

On-road cycling facilities are being developed within the City of Peterborough; however, these are only starting to be considered for development in other areas of the County. The suitability for cyclists to share existing roadways with



A growing number of multi-use and hiking trails exist in the County of Peterborough where the area is largely rural in nature.

motor vehicle traffic is dependent on a variety of factors including: traffic volumes, traffic speeds, roadway geometry and surface type. A road cyclist map was developed as a guide to help area residents and visitors select suitable routes.

The County of Peterborough, City of Peterborough, Peterborough & the Kawarthas Tourism, and Shimano Canada partnered to create the area's first designated road cycling routes, the Peterborough & the Kawarthas Classics Road Cycling Routes (Shimano Routes). Way-finding route markers have been placed along almost 300 km of scenic rural roads to guide riders off the beaten path to area businesses and attractions along the routes. The touring loops range from 47 to 98 km in length and accommodate avid cyclists.



Parking at trailheads or paddling route accesses to provide convenient access, bike racks to allow cyclists to secure their bicycles, roadway crossings and benches placed strategically along some routes to provide pedestrians or cyclists an opportunity to rest or a vantage point to view the scenery are among the other existing facilities / amenities that require expansion to more fully support AT.



PADDLING

The County of Peterborough is home to the Trent-Severn Waterway, and hundreds of local lakes and rivers including Chemong Lake, Stoney Lake and Buckhorn Lake. The Trent-Severn Waterway is a 386 km long canal route connecting Lake Ontario at Trenton to Lake Huron at Port Severn. Also found within the City of Peterborough is the Canadian Canoe Museum that explores the canoe's significance to Canadians and hosts more than 100 canoes and kayaks on display. Paddling on the County's waterways offers the public another form of active transportation. The plans presented at the PIC's included existing canoe routes and input on the suitability of some of those routes was provided.

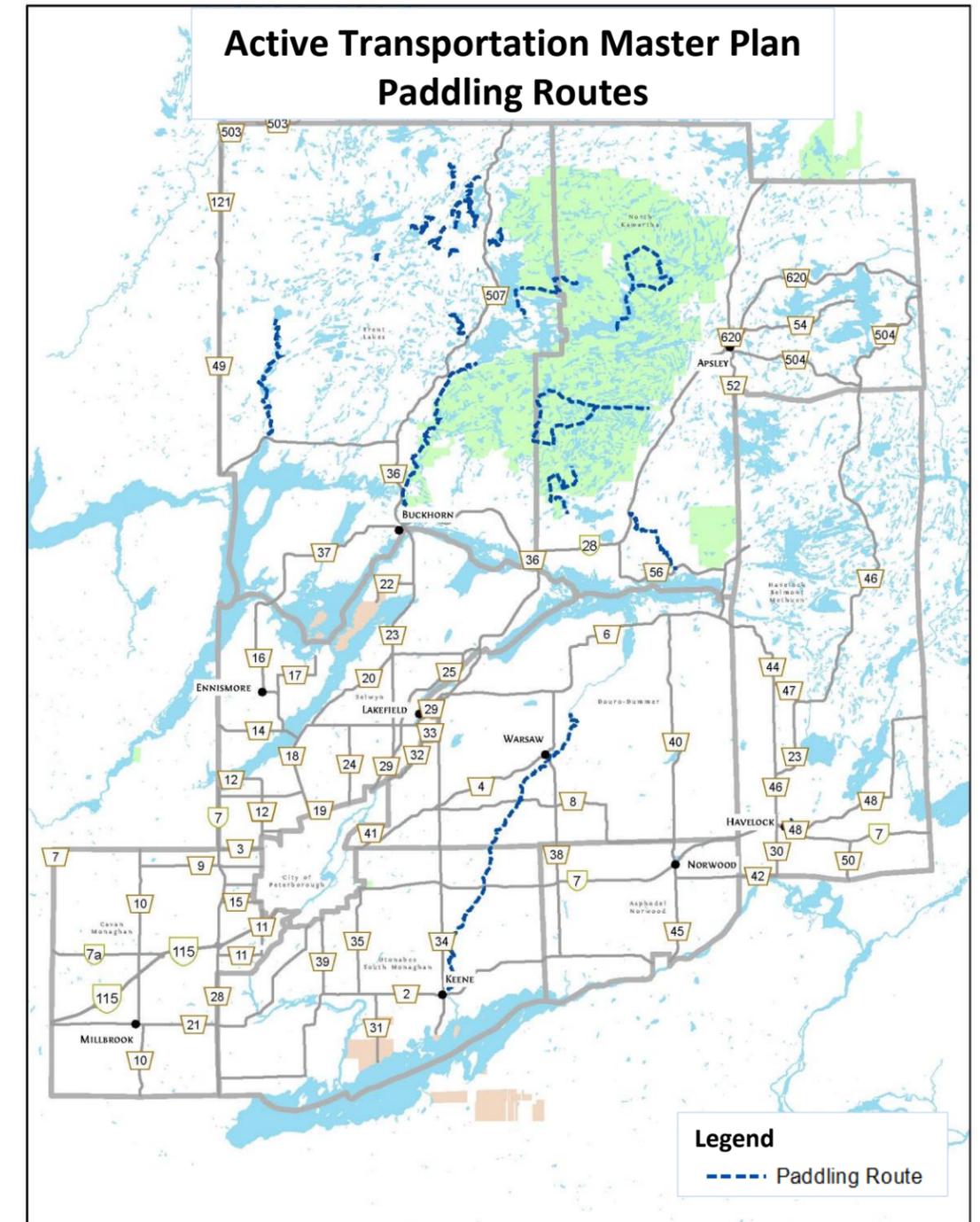


Credit: Canadian Canoe Museum

The provincial initiative "PaddleON" provides a new opportunity to promote canoeing and kayaking which has been a longstanding attraction that invites local residents and tourists to experience the County by water and explore local features and wildlife from a different perspective.



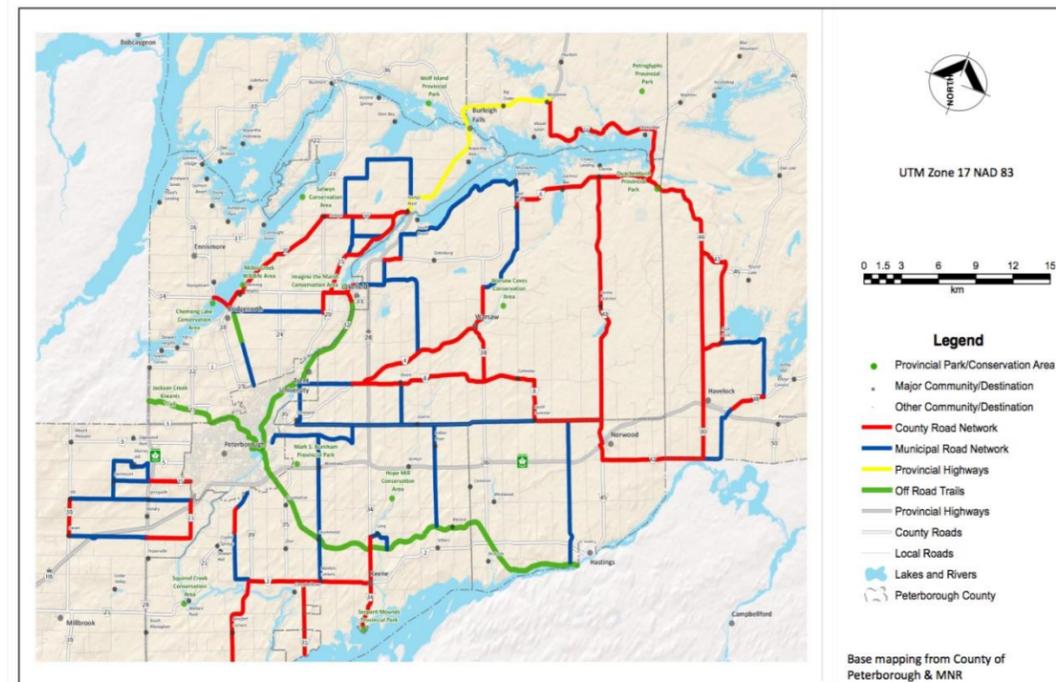
Credit: Canadian Canoe Museum



Peterborough is home to the Canadian Canoe Museum and offers hundreds of beautiful lakes and rivers (Canada's original active transportation corridors).

GENERATION OF ALTERNATIVES

Alternative projects, programs and policies were developed as part of the ATMP to build upon the TMP which included a conceptual AT/cycling network for Peterborough County that identified both on-road and off-road (trail) AT facilities. This was a coarse network based on the existing trails and off-road routes located in Peterborough County and the City of Peterborough. Key principles that were considered included that each alternative should be **safe**, should be **accessible** and should **connect to places people want to go**. The initial list of potential facilities was expanded through a Community Café event, public consultation meetings and discussions with agencies and stakeholders. A long list of projects included separated multi-use trails, roadway improvements, parking facilities, pedestrian crossings, and new or improved trail networks.



Conceptual TMP Network

It must be recognized that cyclist behaviour varies depending on the skill and experience of the cyclist. AT infrastructure should be designed to accommodate as many users and user types as possible. Typically, cyclists can be categorized into one of the following four groups:

Alternatives were developed for various projects, programs and policies to promote a “Complete Streets” approach and build upon the existing TMP. Alternatives were reviewed for all modes of active transportation.

Strong and Fearless	Enthused and Confident	Interested but Concerned	“No Way – No How”
			
1%	7%	60%	32%

Strong and Fearless cyclists will cycle on any roadway that bicycles are permitted, regardless of the speed and volume of traffic on the adjacent roadway and regardless of whether cycling-specific infrastructure exists.

Enthused and Confident cyclists are those who are comfortable sharing the roadway with motor vehicles but prefer doing so either within their own designated area (i.e. with pavement markings and/or signage for the preferential or exclusive use of cyclists) or on low speed/low volume roadways.

Interested but Concerned riders represent approximately 60% of the population, the bulk of the cycling community. They typically prefer to ride on low volume, low speed roads or multi-use trails totally separated from motor vehicle traffic. They often ride less frequently but may become *Enthused and Confident* with more experience, encouragement, education and better facilities.

Together, *Enthused and Confident* riders and *Interested but Concerned* riders comprise the target cyclist groups for much of the infrastructure improvements proposed as part of the plan. The goal of improving cycling infrastructure is to provide more cycling opportunities for the *Interested but Concerned* cycling community so that they can gain the confidence and experience necessary to become *Enthused and Confident*.

No Way – No How individuals represent approximately 30% of the population. They are not cyclists and either have no interest in becoming cyclists or are unable to ride. They are still important from the perspective of encouraging good driving behaviour and greater awareness of pedestrians and cyclists.

GENERATION OF ALTERNATIVES

Types of Facilities for Cyclists

Shared Roadways			Fully Paved Shoulders	Bike Lanes	Multi-Use Pathways	
Unsigned Low Volume Roads	Signed	Pavement Markings			Within Road Right-Of Way	Separate Alignment
						
Suitable for lower volume roads with lower operating speeds. As volumes of vehicles and/or cyclists increase, signage and roadway markings may be added.			Improves conditions for pedestrians and cyclists, while also improving motor vehicle safety and reducing maintenance costs	Dedicated facility often limited to urban settlement areas. Providing separation between cyclists and motor vehicles	Greatest separation between motor vehicles and active modes. Offers greatest opportunity to attract "Interested but Concerned" category of cyclist.	

Types of Facilities for Pedestrians

Sidewalk	Fully Paved Shoulder	Multi-Use Pathway	Road Crossings
			
Fully separate facility limited to pedestrians only. Typically limited to urban settlement areas.	Serves needs of pedestrians and cyclists, while also improving vehicle safety. Offers rural areas improved pedestrian facility.	Greatest separation between motor vehicles and active modes. Requires speed limits on cyclists to protect pedestrian safety	Crossings remove barriers created by high volume/high speed roadways. Ranges from pavement markings and signage to signalization

Other Facilities

Facilities that improve access to or enhance AT opportunities without adding AT linkages to the network are included under "Other Facilities".

Examples include:

- Scenic lookouts/dwelling areas that overlook areas of natural beauty;
- Visible and secure bicycle parking; and
- Vehicle parking at:
 - Multi-Use Trail access locations
 - Paddling lake and river accesses
 - Conservation Areas



COMPLETE STREETS

Complete Streets are multi-modal streets for everyone, designed and operated to provide safe access for all road users, including pedestrians, cyclists and motorists of all ages and abilities. Development of a Complete Streets Guideline for the County would place a greater emphasis on pedestrians, cyclists, accessibility and streetscape. It would assist in changing the traditional approach that for many years has focused on the provision of roads to accommodate motor vehicles.

Implementing a guideline for a “Complete Streets” approach to infrastructure projects within the County of Peterborough would:

- Provide safe, accessible streets for people of all ages and abilities
- Give people a range of transportation choices
- Promote healthy and livable communities
- Contribute to environmental sustainability
- Support economic prosperity
- Create vibrant and attractive people places



Source: Brockville Active Mobility matters



Source: Brockville Active Mobility Matters



POLICIES

Policies are principles and/or guidelines designed to be used by County and Lower Tier Municipality decision makers to influence greater adoption of AT. Proposed policies have been divided into the following categories:

1. Planning;
2. Design and Construction; and
3. Financing.



Adopting AT supportive strategies and initiatives as part of the planning process is recognized as an opportunity for the County and Lower Tier Municipalities to improve economic prosperity through the promotion of tourism, economic development and healthy lifestyles for residents and area visitors. Best practices to support AT should consider where feasible and appropriate:

1. Protecting municipal rights-of-way, utility easements and abandoned railway corridors, for future multi-use pathways and linkages to adjacent communities
2. Protecting water access to support tourism within the County
3. Encouraging private developments adjacent to waterways to dedicate land for greenways and public spaces
4. The importance of AT as part of the “Regional Age Friendly Action Plan”
5. “Complete Streets” approach to create more pedestrian and cycle friendly environments as part of future official plan updates, municipal by-laws, subdivision codes and reconstruction projects
6. Bicycle parking, as part of Site Plan Control for new developments
7. Prohibiting motorized vehicles on recreational trails unless designated by municipal by-law.

Promoting safety and accessibility for all modes of travel is desired by each municipality. To further support AT, the County and Lower Tier Municipalities should consider, where physically and economically feasible:

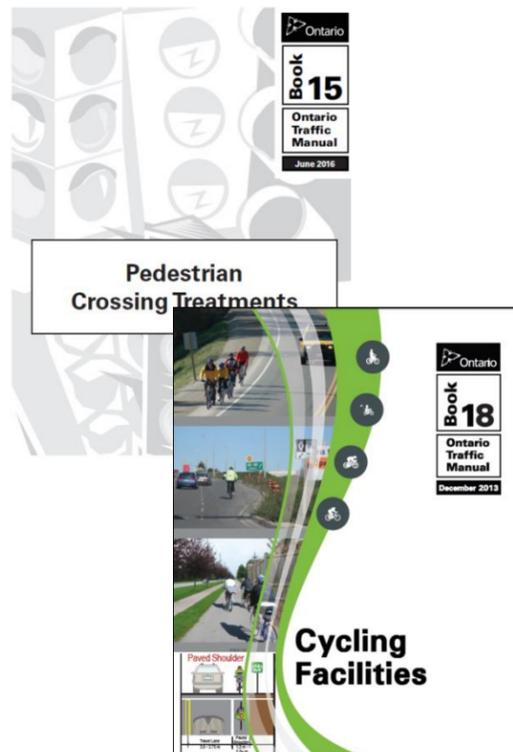
1. A stepped warrant for the provision of paved shoulders on medium volume ($1,000 < \text{AADT}^1 < 5,000$) and higher volume roads ($\text{AADT} > 5,000$) to improve safety and reduce longer term maintenance costs

¹ AADT – Average Annual Daily Traffic

2. Provision of multi-use pathways parallel to high volume corridors (AADT >10,000)
3. Adopting Ontario Traffic Manuals as guideline documents for pedestrian crossings and cyclist facilities where specific policies have not been developed

Successful staged implementation is dependent on funding. Funding priorities for AT routes should be considered in the capital works program as follows:

- Roads scheduled for reconstruction / resurfacing
- Road sections with major safety concerns
- Major AT corridors
- Corridors providing network connectivity



PROGRAMS

Programs are further plans of action that could involve the County, Lower Tier Municipalities, and/or partnerships with other organizations (such as the City of Peterborough, GreenUP, Peterborough Public Health etc.) designed to increase AT. Programs have been divided into the following categories:

1. General;
2. Safety and Education; and
3. Promotion / Marketing / Encouragement / Tourism.



General

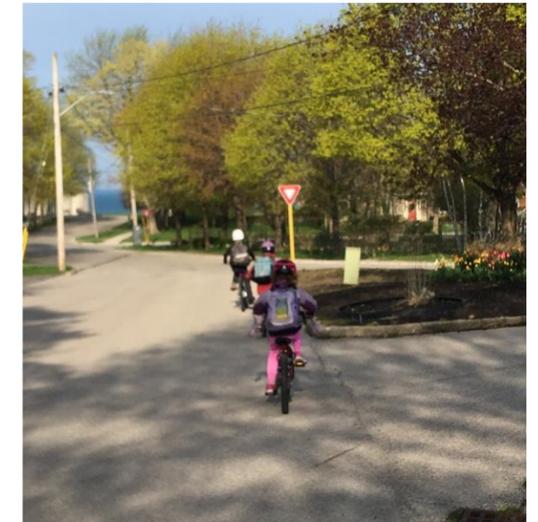
- **Bicycle parking** – install stands and secure lockers at key locations
- **Amenities** – provide benches, information kiosks, landscaping etc.
- **Signage and Way-finding** – annual improvements
- **STOP (Selective Traffic Operations Program)** – small infrastructure repairs/ improvements



Programs are further plans of action designed to increase AT throughout Peterborough County. The alternatives were divided into three categories: General; Safety and Education; and Promotion/Marketing/Encouragement/Tourism.

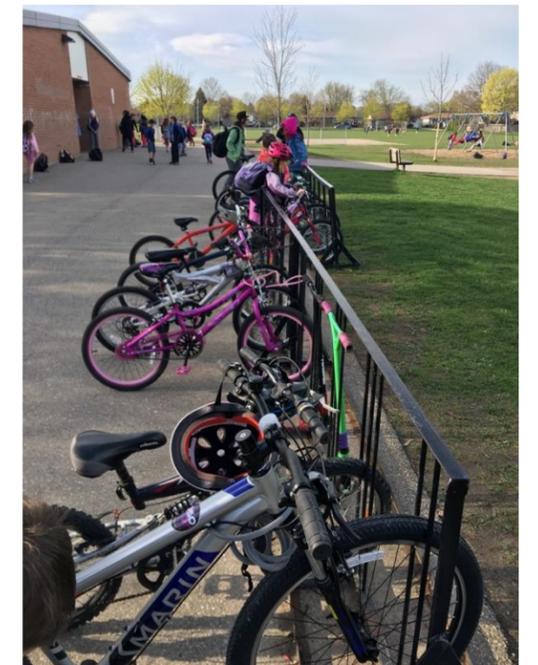
Safety/Education

- Participate in the **CAN-Bike** cycling safety and education program. Consider training a Municipal employee as a **CAN-Bike Instructor**
- Continued support for **existing programs** such as Active and Safe Routes to School
- **Enforcement** – e.g. partner with police for a “Share the Road” campaign
- **Information Program** – Promote AT by disseminating information to the public



Promotion/Marketing/Encouragement/Tourism

- Establish an **AT Webpage**, in partnership with Peterborough & the Kawarthas Economic Development providing: pedestrian and safety guides, online maps (cycling routes, hiking trails and canoe routes), eco-tourism and local event promotion, etc.
- Create/Expand an **“Open for AT Business”** Program – developing partnerships with organizations such as Peterborough & the Kawartha’s Tourism, Trent-Severn Waterway, area businesses, local cycling clubs, etc.



PROJECTS

The TMP developed a conceptual AT/cycling network for Peterborough County that identified both on-road and off-road (trail) AT facilities. This was a coarse network based on the existing trails and off-road routes located in Peterborough County and the City of Peterborough. This list of facilities was expanded through a Community Café event, public consultation meetings, direction from the Technical Advisory Committee and discussions with agencies and stakeholders. A long list of projects included separated trails, roadway improvements, parking facilities, pedestrian crossings, and new or improved trail networks.

The long list of projects was evaluated to assist in establishing priorities for the County and Lower Tier Municipalities.



The ATMP built upon the conceptual active transportation/cycling network developed for the TMP. A long list of projects was divided into priorities for the County and Lower-Tier Municipalities.

PROJECTS

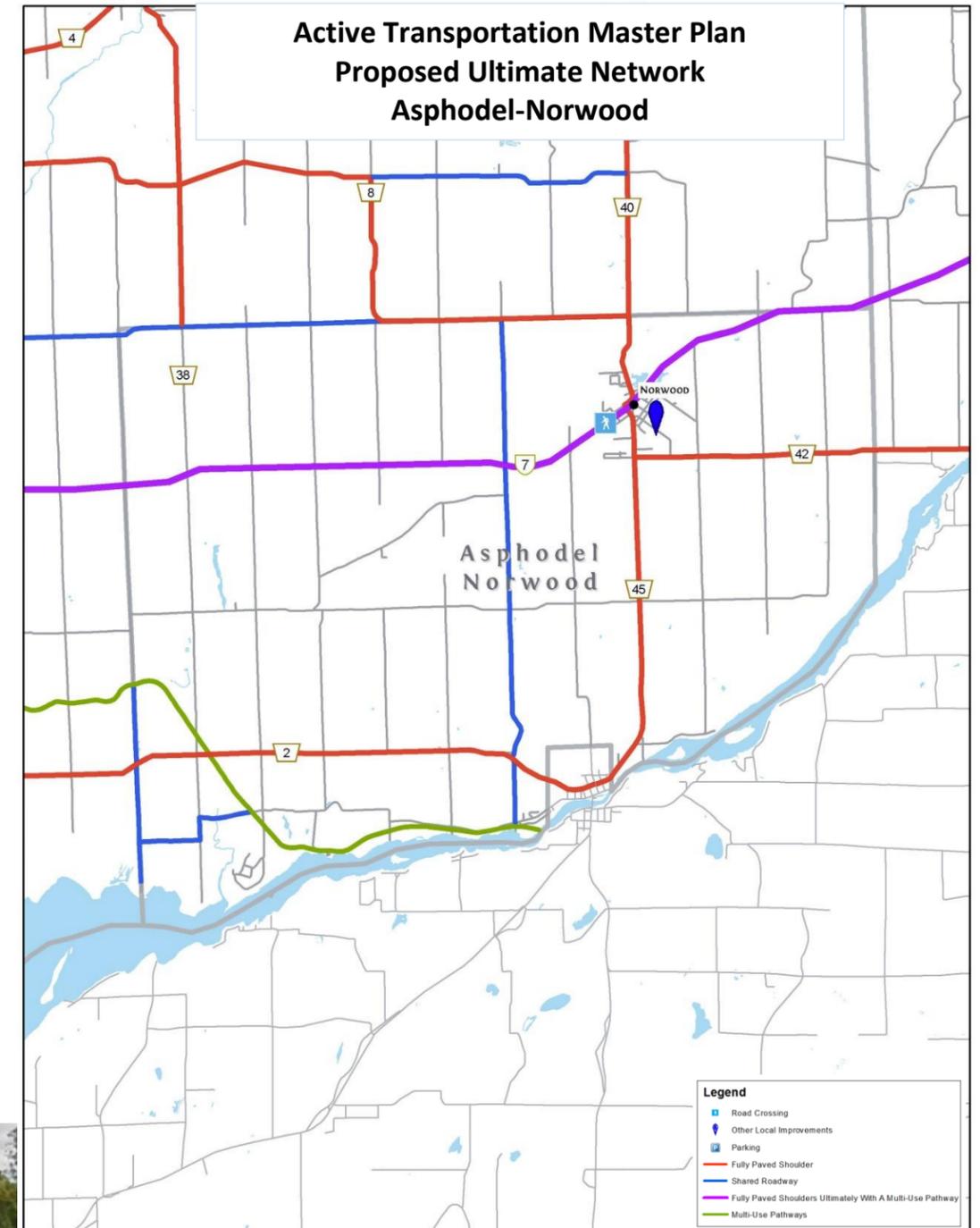
Asphodel-Norwood Ultimate Network

The Township of Asphodel-Norwood identifies itself as “providing an attractive blend of rural, village and cottage living”.

The Lang-Hastings (Trans Canada) Trail provides access to residences and resorts located along the Trent River. This could form a key linkage if a cycling route around Rice Lake is promoted. Cyclists would cross the Trent-Severn Waterway at Hastings. The Mill Pond Forest Trails are located just off of County Road 40, north of the village of Norwood. The trail system comprises 1.8 km of scenic paths overlooking the north side of the Mill Pond, includes forested and open field systems, and is home to a variety of native wildflowers, birds and butterflies.

In the north end of the Township, the Kawartha Lakes Railway currently operates on the former Canadian Pacific Railway line through Norwood. Potential improvements to the railway corridor are being considered to reintroduce passenger rail service to the area. Opportunities to expand any future railway corridor to develop a “Rail and Trail” facility as an alternative to a multi-use pathway within the Highway 7 corridor should be considered. Crossings of Highway 7, which carries as much as 12,000 vehicles/day, can also be an issue for pedestrians and cyclists.

The plan further identifies the potential for improved pedestrian crossing facilities across Highway 7 and improved pedestrian links throughout the Norwood settlement area.



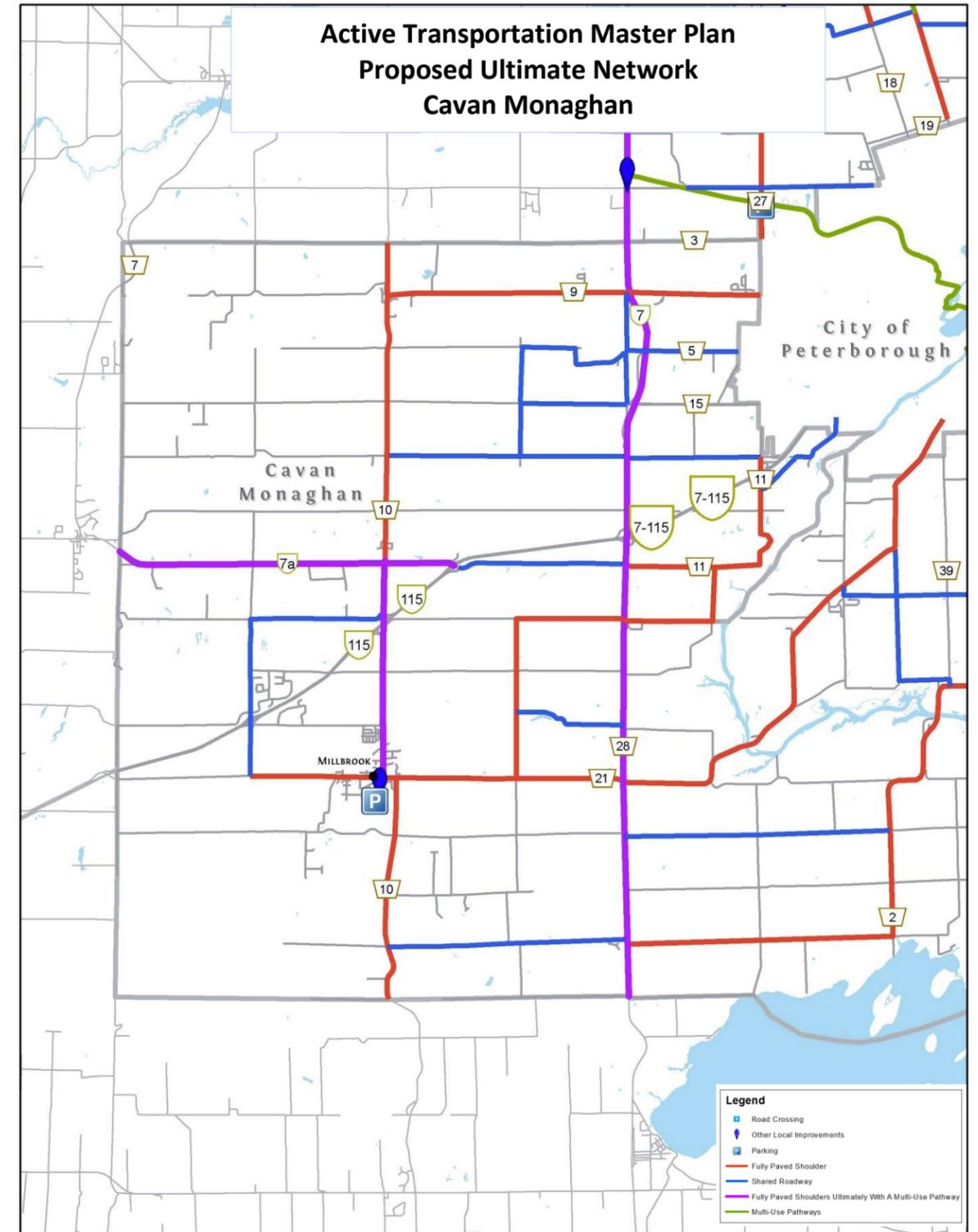
PROJECTS

Cavan Monaghan Ultimate Network

The Township of Cavan-Monaghan is located in the southwest quadrant of Peterborough County. It is committed to promoting sustainable growth and enhancing a healthy community. The proposed AT network provides linkages to Northumberland County to the south and the Municipality of Kawartha Lakes to the west. This includes a section of the Province-wide cycling network that is now proposed. The historic Village of Millbrook is a major attraction for tourists and is a destination for cyclists and hikers. The township is also home to the existing Peterborough & the Kawarthas Classics Cycling Routes 3 and 3A.

The Millbrook Valley Trails are available for hikers and follow the shores and valley of Baxter Creek, south of Millbrook through the Oak Ridges Moraine. These walking trails vary in length from 0.6 km to 3 km.

The plan further identifies parking improvements at Millbrook Conservation Area and improvements/expansion to the Millbrook Valley trail system to build on the existing tourist potential.



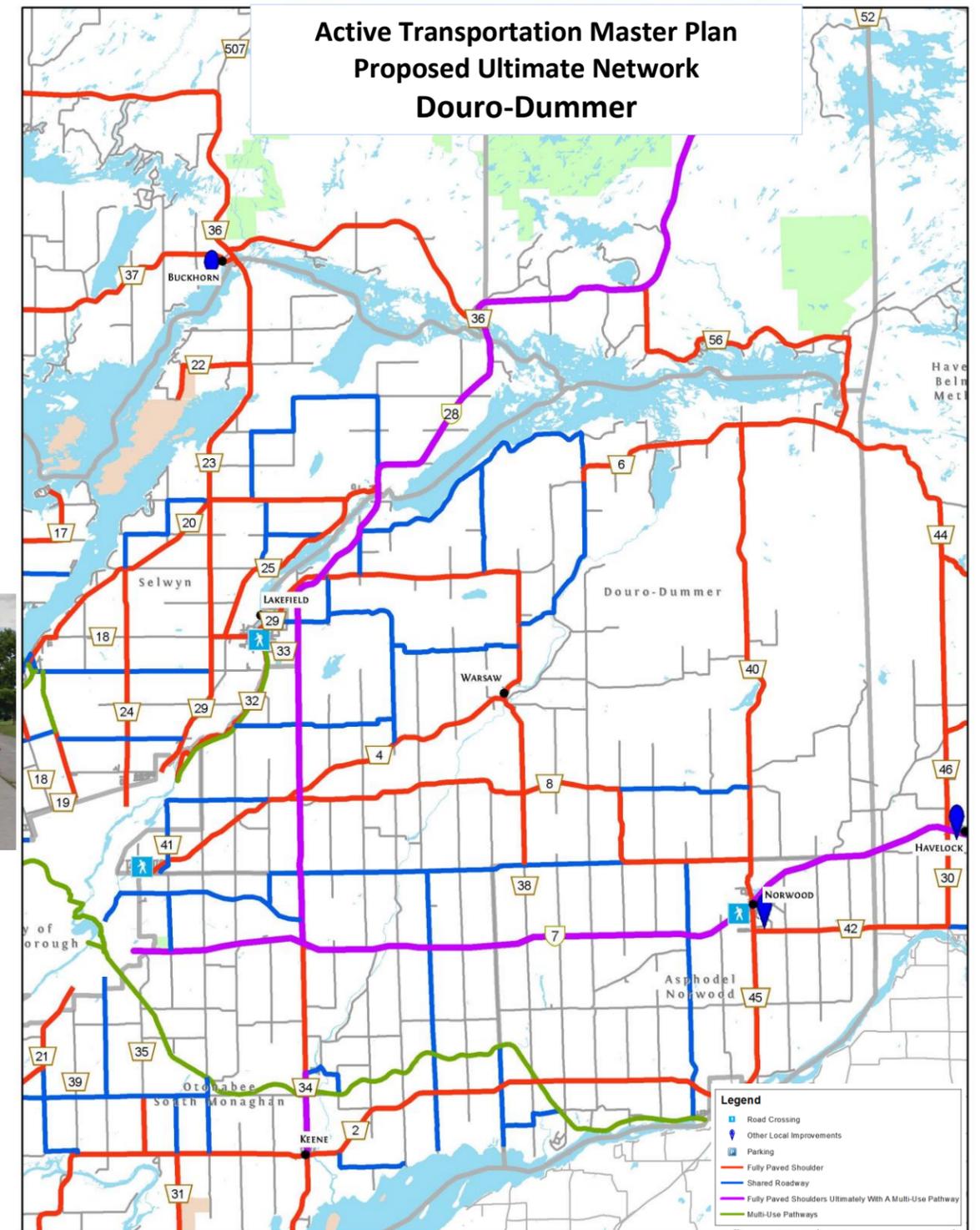
PROJECTS

Douro-Dummer Ultimate Network

The Township of Douro-Dummer is “a quaint rural community comprised of small and large businesses, farmlands, beautiful lakes and rivers, parks, walking trails and recreational opportunities.”

Picturesque landscapes, the Trent-Severn Waterway and natural features that include rolling drumlins are a highlight for a number of avid cyclists. The placement of the township provides linkages between the City of Peterborough and a variety of local destinations including: Douro, Warsaw, McCracken’s Landing, Young’s Point and beyond. The Township is also home to the existing Peterborough & the Kawarthas Classics Cycling Routes 2 and 2A and portions of the Rotary Greenway Trail.

The ultimate plan identifies many linkages to connect settlement areas and attractions. It also identifies the potential for sidewalks and pedestrian facilities within urban settlement areas near the City of Peterborough.



PROJECTS

Havelock-Belmont-Methuen

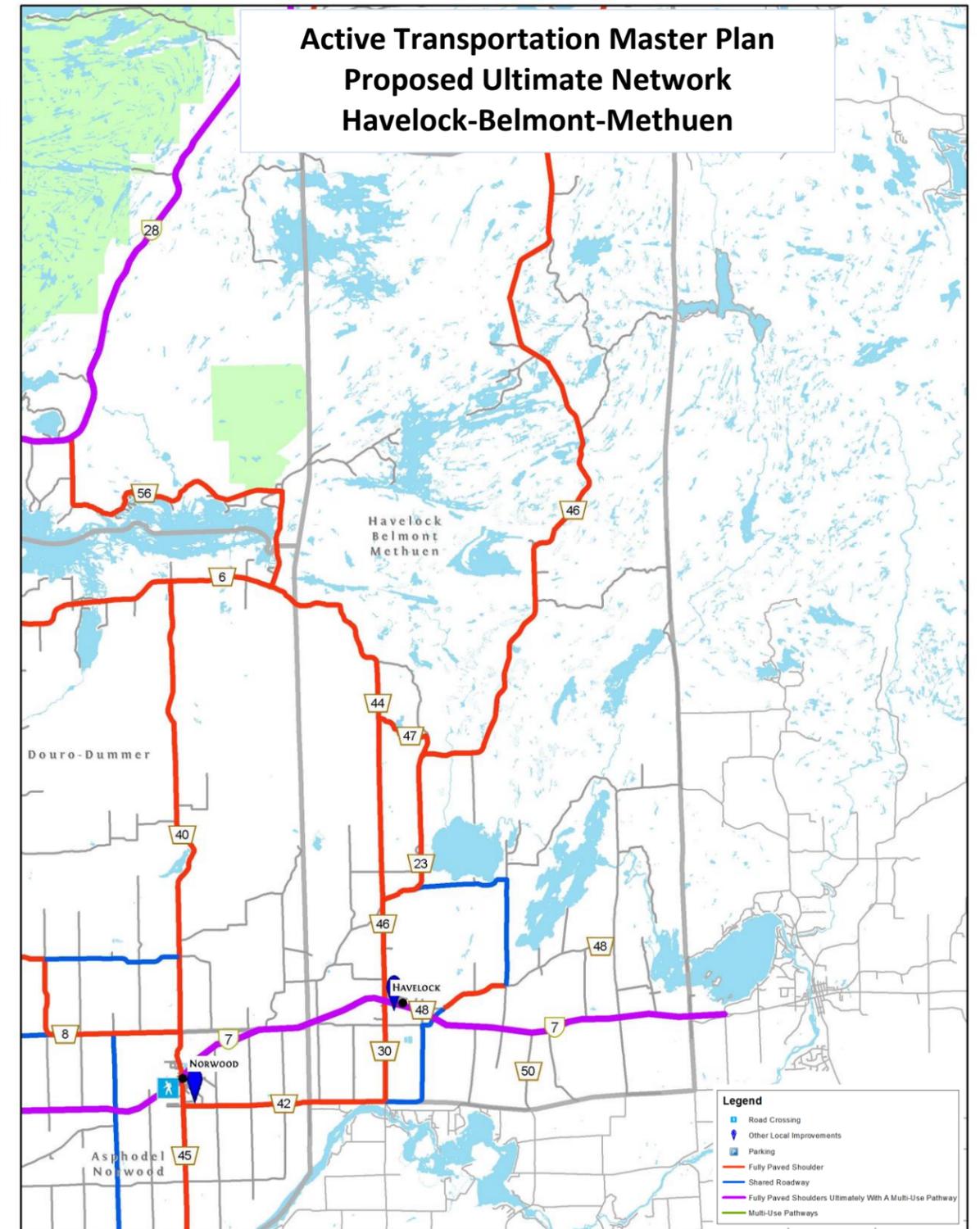
Ultimate Network

Located in the southeast corner of the County of Peterborough. Tourism and outdoor enthusiasts account for a large portion of the Township of Havelock-Belmont-Methuen economy. Highway 7 can, at times, represent a barrier for pedestrians and cyclists to cross.



The proposed network would provide spines to provide access to some of the many lakes and rivers. Potential upgrades to the Canadian Pacific Railway corridor east of Havelock running parallel to Highway 7 may provide a Rail and Trail opportunity, providing a future east-west trail, separated from the motor vehicle traffic and linking communities that developed along the highway and the railway.

The plan further identifies improving connections between Havelock Village and Mountain Bike trails located immediately north of the village.

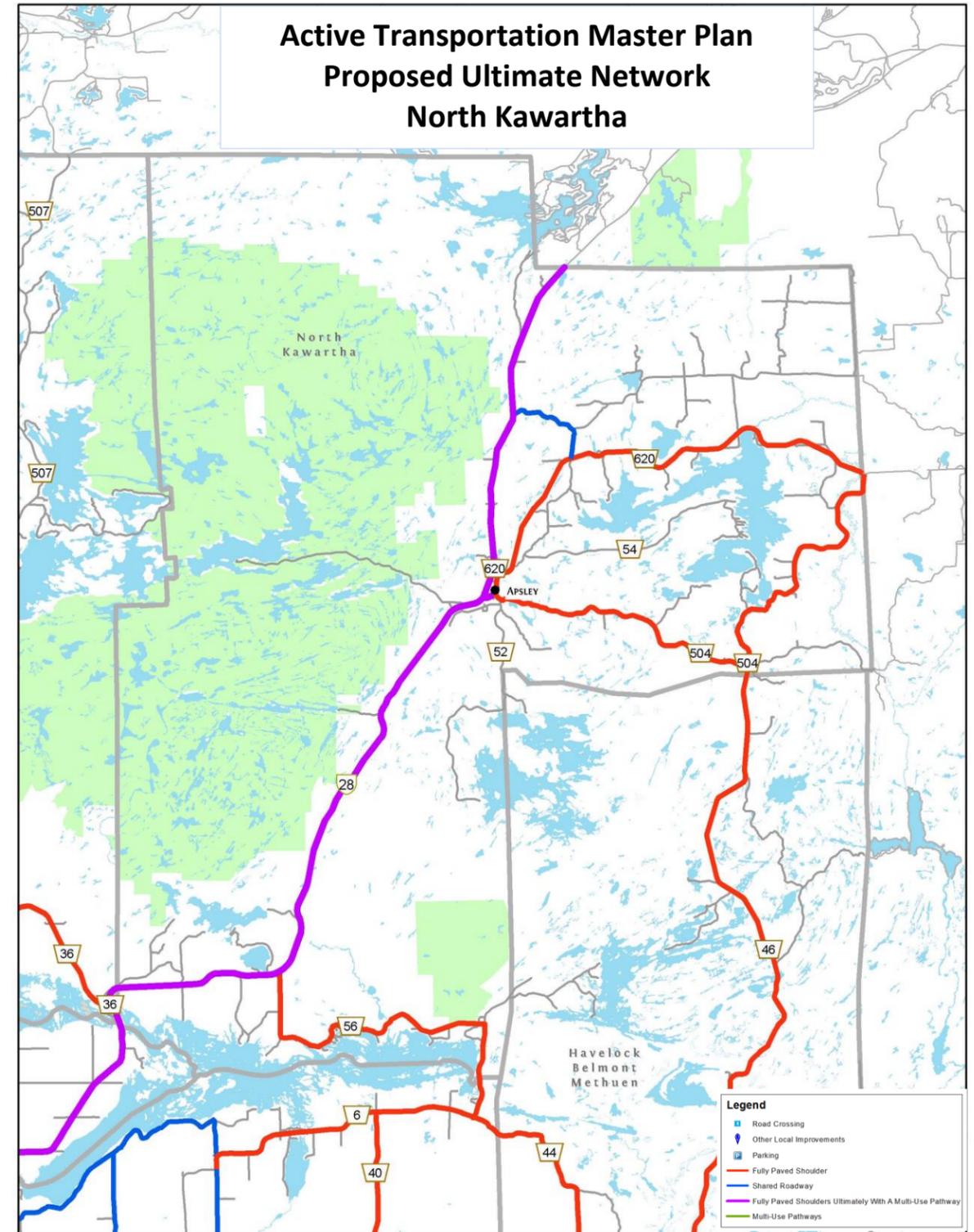


PROJECTS

North Kawartha Ultimate Network

The Township of North Kawartha is a rural setting covering approximately 765 square kilometres and is dotted with small hamlets. It has been described as a jewel of Central Ontario and a gateway to the Kawartha Highlands Provincial Park, Petroglyphs Provincial Park and unspoiled freshwater lakes. The rugged landscape and breathtaking scenery makes this area an exciting destination for cyclists, hikers and paddlers of all ages.

The proposed AT network would be anchored by Highway 28, a link in the proposed province wide cycling network, as a north-south spine that bisects the Township while providing a linkage to the remainder of the County and beyond. County Road 620 connects Apsley to Chandos Beach and combined with County Road 504 provides a scenic loop for cyclists around Chandos Lake and access to area cottages. The proposed plan has identified the ultimate provision of paved shoulders on County Roads 620 and 504. The provision of "Share the Road" signage on segments of those corridors could be an option for staging the implementation of provisions for cyclists.



PROJECTS

Otonabee-South Monaghan

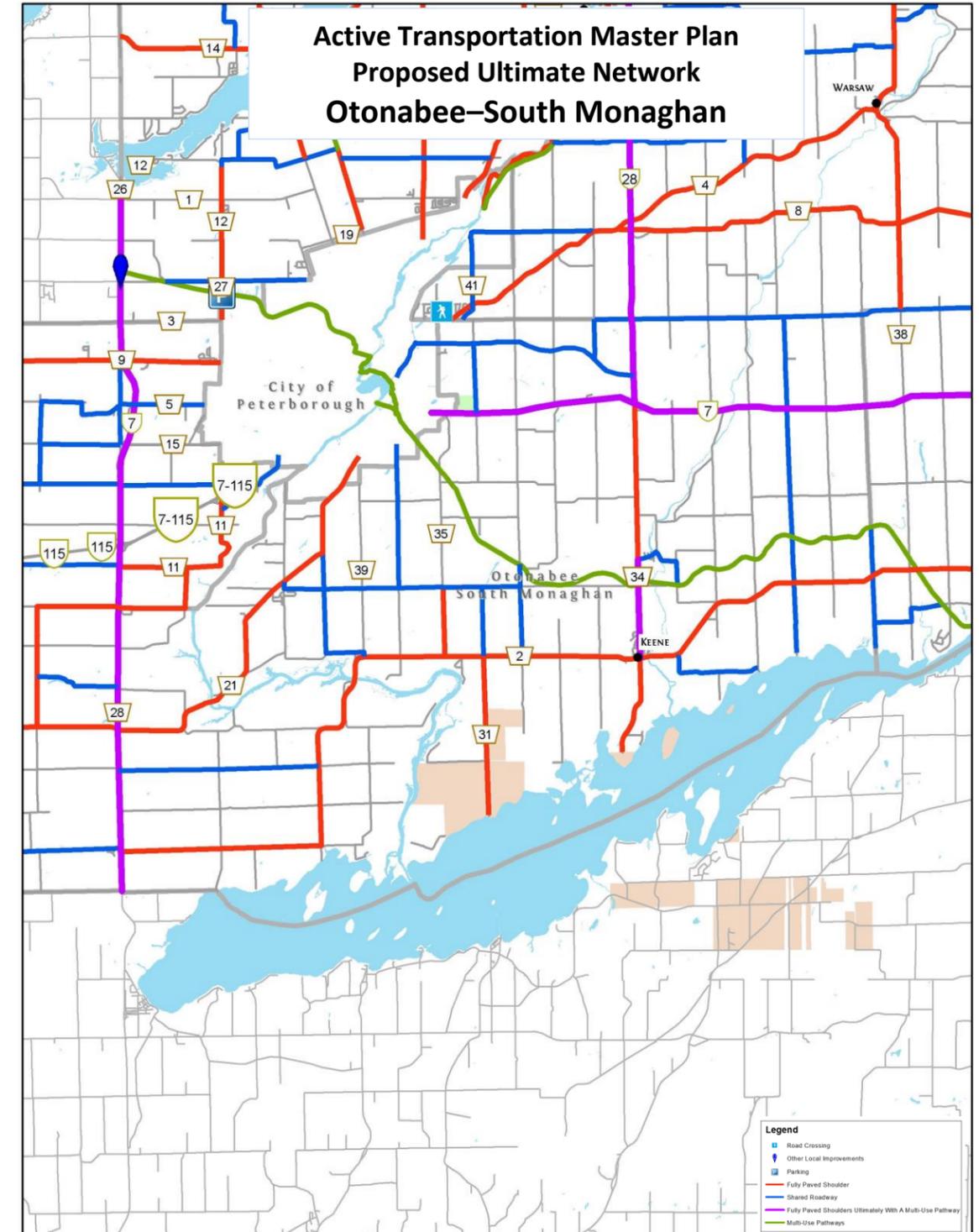
Ultimate Network

Otonabee-South Monaghan, located on the north shore of Rice Lake, is home to Lang Pioneer Village, Harold Town Conservation Area and numerous resorts that are major tourist destinations. Provisions to accommodate AT will provide additional recreational opportunities to further promote tourism and support area businesses.



The Township is also home to the existing Peterborough & the Kawarthas Classics Cycling Routes 3 and 3A.

The Township of Otonabee-South Monaghan is bisected by the Trans Canada Trail. Major elements of the proposed AT network are linkages to the Trans Canada Trail from within the community, particularly the tourist areas along Rice Lake. Linkages to cycling routes within Northumberland County could also establish a route that circles Rice Lake as an additional attraction for cycling enthusiasts and eco-tourism.



PROJECTS

Selwyn - Ultimate Network

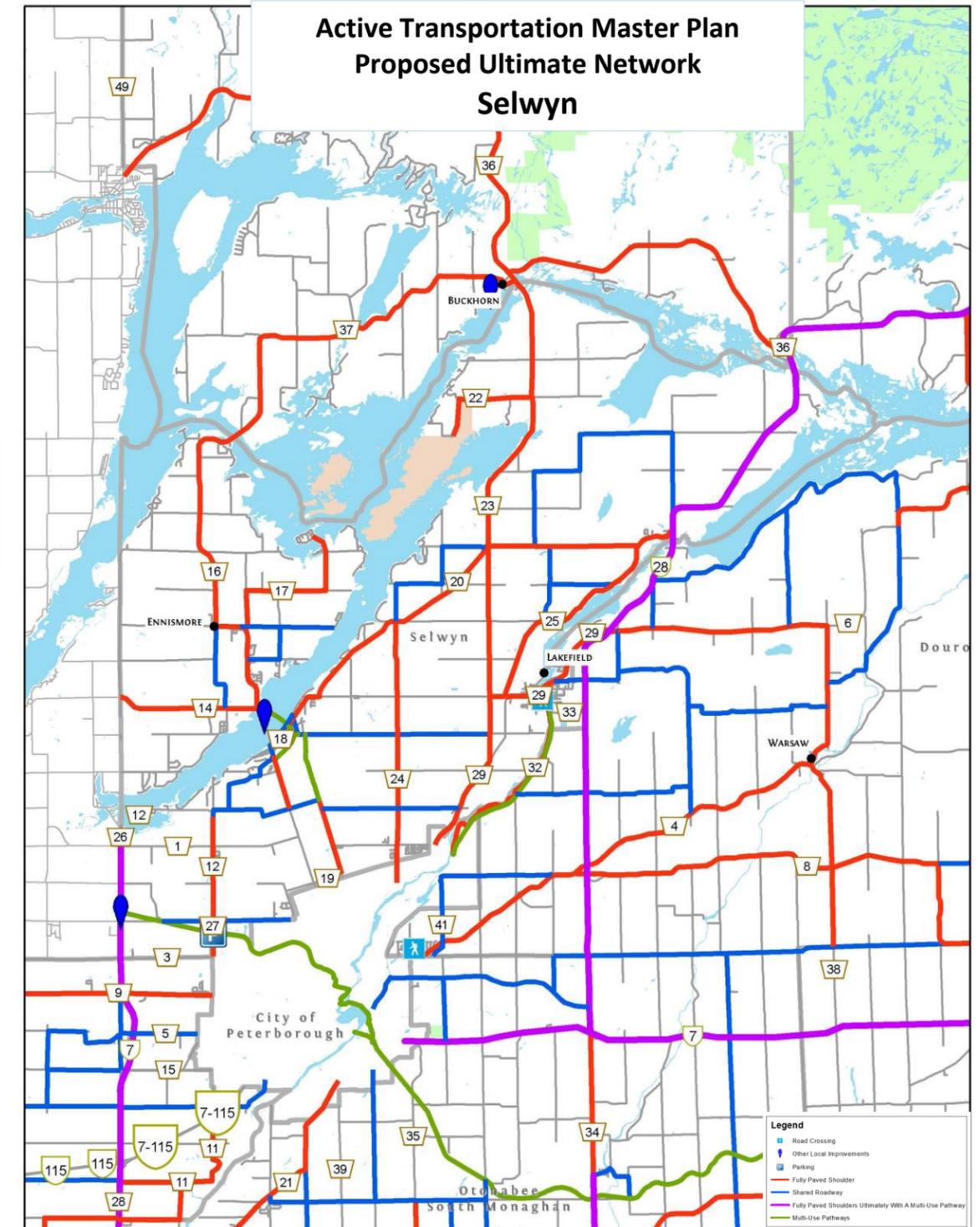
The Township of Selwyn is centrally located within the County of Peterborough, bordering the City of Peterborough and the City of Kawartha Lakes. Lakefield, Bridgenorth and Ennismore are Selwyn's largest urban areas. The community is home to many attractions, festivals and special events. It also contains numerous lakes, rivers, beaches and parks all of which are potential AT destinations for cyclists, hikers and paddlers. Surrounded by water on three sides, water is both an attraction and a barrier for active modes of transportation, limiting route alternatives. Selwyn is home to Peterborough & the Kawarthas Classics Cycling Routes 1 and 1A.



Major existing linkages to build an AT network around include:

- The Rotary Greenway Trail, connecting the City of Peterborough and Lakefield
- The B.E.L. Rotary Bridgenorth Trail
- The Gifford Causeway
- Lakefield Trail Network
- Trans Canada Trail

The proposed regional AT network is in part a subset of Selwyn's Trails Master Plan and would provide loops within the community and linkages joining key areas within the Township of Selwyn and to neighbouring communities such as: Cities of Peterborough and Kawartha Lakes, Buckhorn and Burleigh Falls. The plan also includes a proposed scenic lookout on the Gifford Causeway as well as additional parking for access to the Trans Canada Trail at the south end of the Township.



PROJECTS

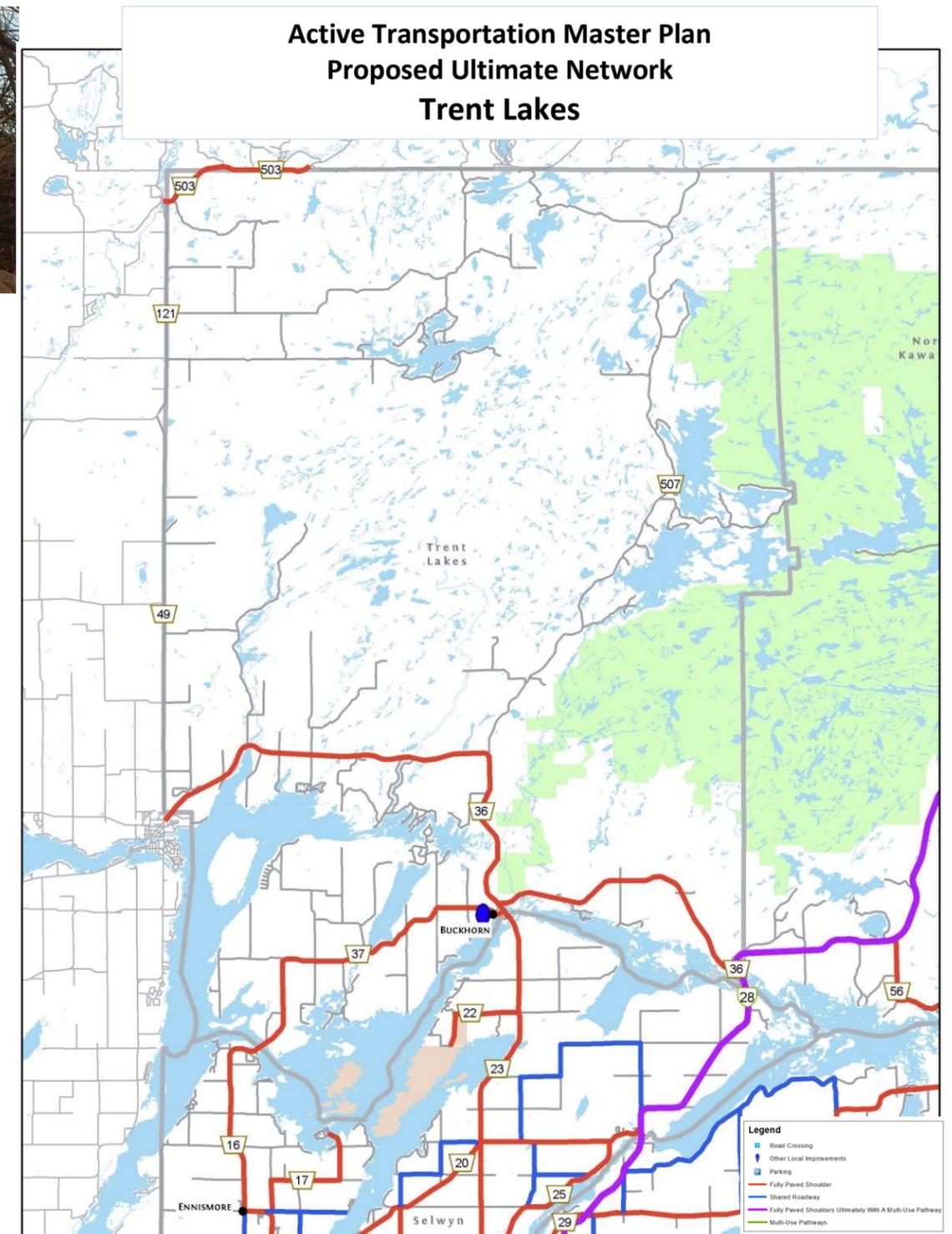
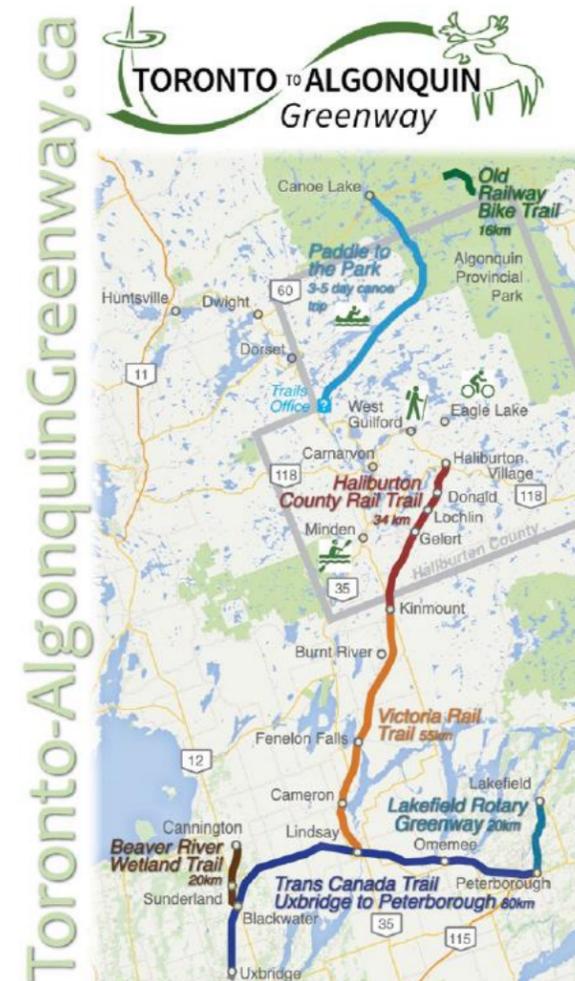
Trent Lakes - Ultimate Network

The Municipality of Trent Lakes supports a strong cottage and tourist industry and includes Buckhorn, Burleigh Falls and Kinmount. The Trent-Severn waterway, which passes through the Township, is both an attraction for and a source of tourist traffic within the community. Integrating AT facilities with these area destinations in the south end of the township are important linkages in the network.



The settlement area of Kinmount in the northwest corner of the County is located on the Toronto to Algonquin Greenway. The Greenway is a series of rail trails that connect Uxbridge, Lindsay and the City of Peterborough to Fenelon Falls and Haliburton.

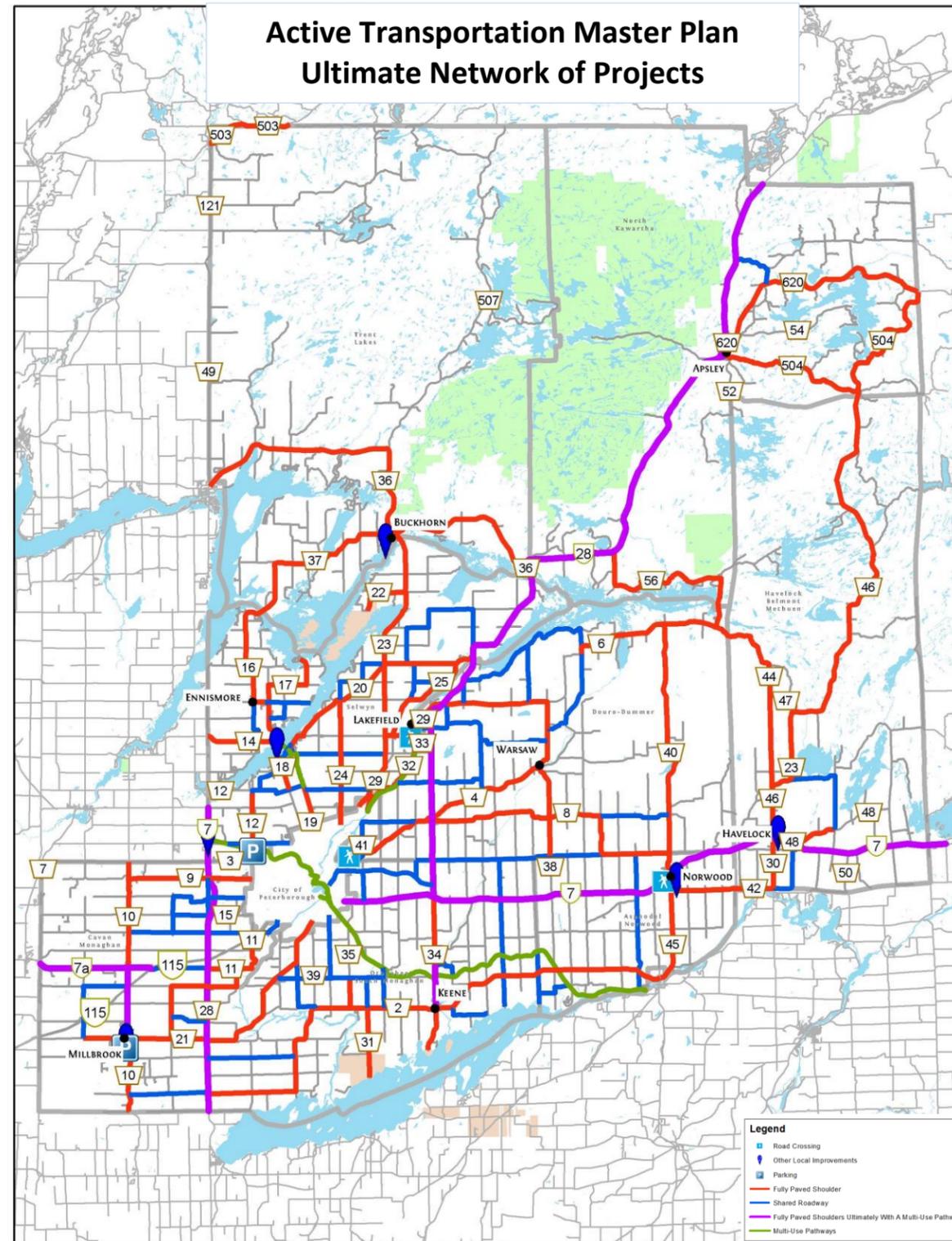
The plan also identifies improving connectivity between existing trails (such as the Adam & Eve trail) and new/proposed residential areas around settlements.



PROJECTS

Ultimate Network

The Ultimate Network illustrates all projects that were presented throughout the course of the study. This list can grow as required. The list of projects includes trails, facilities and roadway updates (such as a paved shoulders or signage).



The AT Master Plan includes pedestrian and cyclist friendly projects, programs and policies. The proposed Ultimate Network integrates the projects for each municipality to provide a long-term vision for the future. The vision will better accommodate AT modes with traditional motorized traffic (“Complete Streets”).



Linking where we “Live, Work and Play”, the proposed plan has been developed to provide health, safety, economic and environmental benefits resulting from:

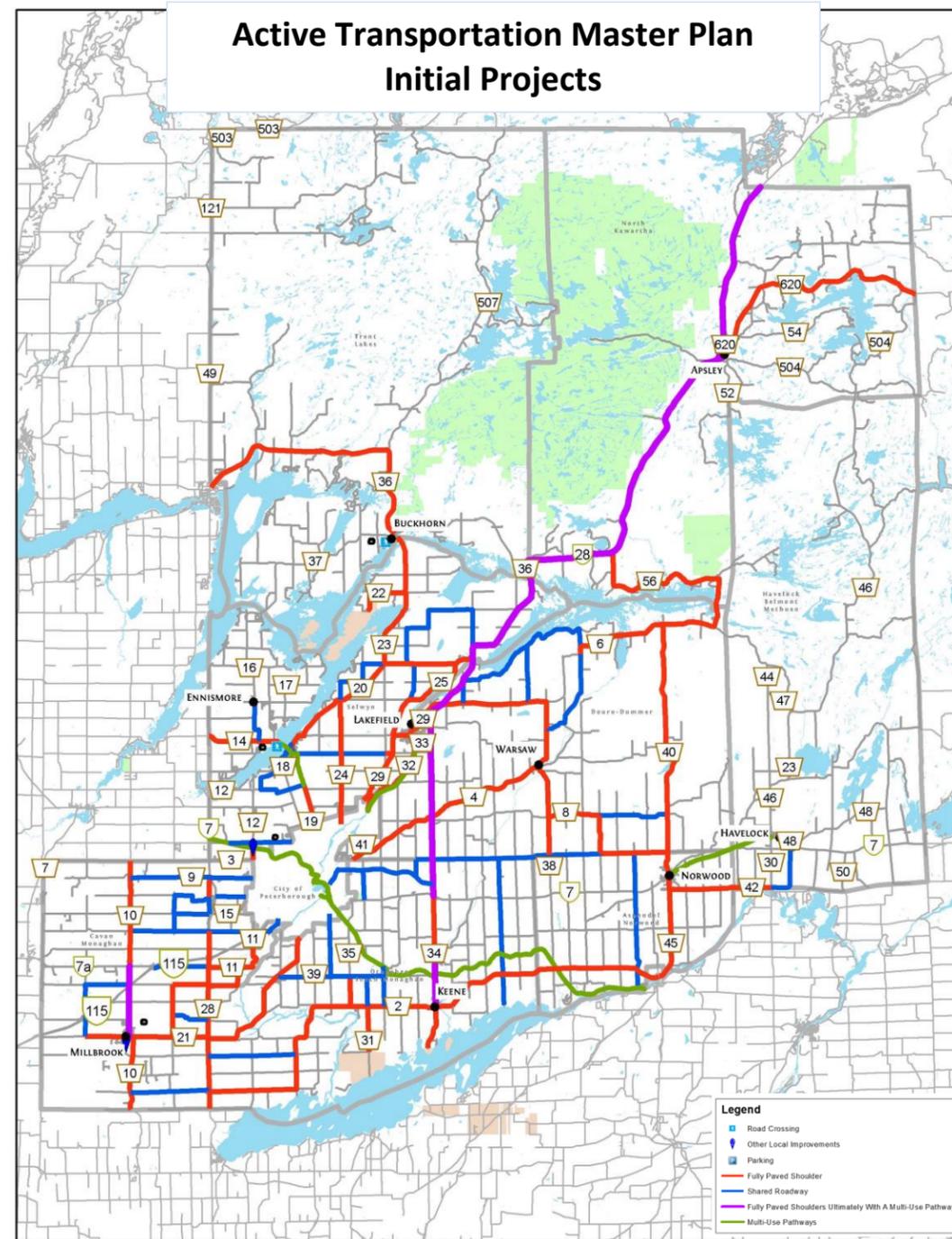
- Fitness and exercise;
- Infrastructure improvements;
- Promotion of tourism (supporting area businesses); and
- Improved air quality with reduced greenhouse gas emissions.



Through urban areas and hamlets, the provision of paved shoulders and multi-use paths would be replaced by alternative context sensitive facilities for pedestrians and cyclists

PROJECTS

Initial Network



As an initial step towards staged implementation of the long-term vision for active transportation within the County of Peterborough, a plan of potential initial projects was identified from the proposed ultimate network considering a variety of factors that included:

- Roadway corridors that are currently scheduled for reconstruction or repaving
- The ranked utility of each potential project
- Locations with particular safety issues
- Connectivity to communities and attractions within the County and beyond
- Ease of implementation

The Active Transportation Master Plan is intended to be a Living Document and as a result, projects and priorities will be adjusted over time.



GOALS and OBJECTIVES

The vision of the Active Transportation Master Plan is “to promote leadership and community partnerships that make the County of Peterborough a healthy, prosperous and sustainable community, with active transportation as a key component of a safe, accessible, integrated transportation system linking where we live, work and play”.

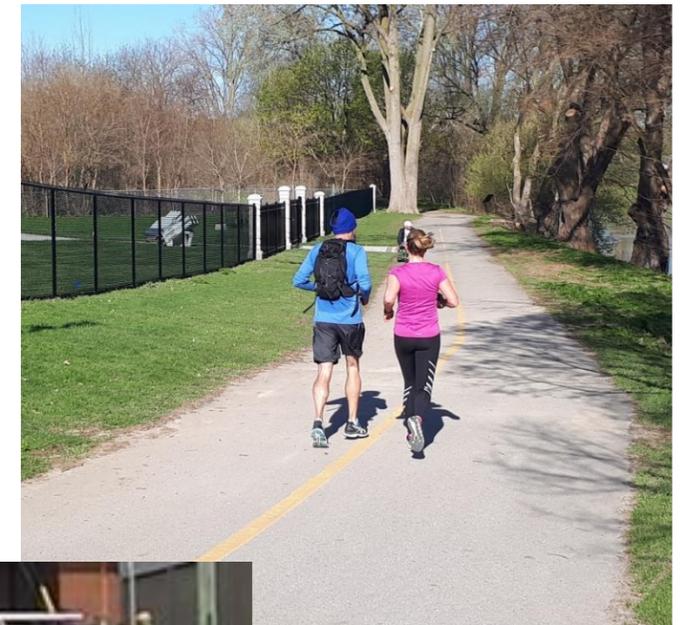
The need to better accommodate active modes of transportation is increasing within the County of Peterborough and across Canada. Goals for promoting active transportation within the County of Peterborough through the implementation of supporting programs, policies and infrastructure as identified in the Active Transportation Master Plan include:

- A **Vibrant Economy** that supports area businesses through an expanded tourist industry.
- To encourage **Healthier Lifestyles** within our community. Increased physical activity such as walking and cycling leads to a significant improvement in a number of health indicators.
- A **Healthier Planet** with decreased emissions of greenhouse gases and a reduced reliance on motor vehicles.
- **Improved Accessibility** for individuals of all ages, levels and abilities. Typically 20 to 40% of people do not drive due to age, ability or expense.
- To **Improve Safety** for all modes of travel, adopting a Complete Streets approach to future transportation projects.

Objectives of the Active Transportation Master Plan include:

- Providing a long term vision for active transportation within the County of Peterborough so that staged implementation of infrastructure improvements can be provided more cost effectively, working towards the long term goals
- Achieving 80% implementation of the Initial Projects identified in the plan over the next 10 years
- Addressing the needs of the community by improving connectivity
- Limiting the potential for future liability through improved transportation safety

Goals and Objectives are achieved cost effectively through staged implementation and monitoring of the long term Master Plan.



Acknowledgements and References

Acknowledgements

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Mike Richardson	Township of Selwyn
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Candice White	Township of Asphodel-Norwood
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2. Ontario Traffic Manual Book 18 – Cycling Facilities, December 2013
3. Bikeways Design Manual, Ontario Ministry of Transportation, March 2014
4. Geometric Design Guide for Canadian Roads, Transportation Association of Canada (TAC), September 1999
5. Geometric Design Standards for Ontario Highways, Ontario Ministry of Transportation, 1994
6. Guide for the Development of Bicycle Facilities , AASHTO, 2012

Appendix A

Study Design

Appendix B

Analysis and Evaluation Report

Appendix C

Record of Consultation

Appendix D

Programs and Policies

Appendix E

Projects