



City of Kawartha Lakes

# Trails Master Plan Update

Report. FINAL  
April 2023

Kawartha  
Jump In



# Table of Contents

Table of Contents..... ii

List of Figures ..... iii

List of Maps ..... iv

Supporting Resources..... iv

Land Acknowledgement..... v

Team Acknowledgement ..... v

Glossary ..... vi

1.0 Purpose and Context.....1

    1.1 TMPU Purpose.....2

    1.2 Project Overview .....3

    1.3 Trail Context .....7

    1.4 Trail Conditions .....18

    1.5 Vision and Principles .....34

    1.6 An Evergreen Plan .....35

2.0 Trail Building and Promoting .....39

    2.1 Infrastructure .....41

    2.2 Design .....44

    2.3 Education and Outreach.....61

3.0 Trail Action Plan.....69

    3.1 Implementation and Management .....71

    3.2 Costing and Funding .....105

    3.3 Maintenance and Enforcement .....113

    3.4 Closing.....124

## List of Figures

Figure 1. Comparison of TMPU and ATMP Scope of Work .....	5
Figure 2. Overview of Updates to be made to the 2006 Trails Master Plan .....	8
Figure 3. Overview of Built-up Areas in the City .....	21
Figure 4. Overview of Trail Design Guideline and Standard Application .....	45
Figure 5. Conceptual Application of Major Trailhead & Major Trailhead Concept .....	53
Figure 6. Minor Trailhead Application Concept & Design Concept .....	54
Figure 7. Preliminary Trail Signage Strategy for Kawartha Lakes .....	57
Figure 8. Above, off-trail navigational signage placement and concept. ....	58
Figure 9. Above, Directional signage concept and application; Below, regulatory signage application and sign examples .....	59
Figure 10. Above, warning / advisory concept and application; Below, educational concept and application.....	60

## List of Tables

Table 1. Overview of Trails Master Plan Development Process .....	3
Table 2. Overview of Engagement Activities as part of the TMPU .....	4
Table 3. Summary of Key Engagement Themes .....	4
Table 4. 2006 Trail Plan Challenges and Opportunities .....	9
Table 5. Overview of Trail User Types for Kawartha Lakes.....	12
Table 6. Summary of Applicable Provincial & Municipal Policies & Plans Reviewed .....	16
Table 7. Summary of TMPU Trail Condition Investigation & Review .....	19
Table 8. Summary of Trail Challenges & Opportunities based on Input .....	33
Table 9. Overview of TMPU Recommendation Categories .....	36
Table 10. Recommendation Implementation Considerations .....	37
Table 11. Summary of Proposed Trail Focus Areas .....	43
Table 12. Summary of Proposed Projects by Focus Area .....	57
Table 13. Summary of Proposed Projects by Focus Area#1.....	58
Table 14. Summary of Proposed Projects by Focus Area#2.....	59
Table 15. Summary of Proposed Projects by Focus Area#3.....	60
Table 16. Summary of Proposed Projects by Focus Area#4.....	60
Table 17. Summary of Proposed Projects by Focus Area#5.....	61
Table 18. Summary of Proposed Projects by Focus Area#6.....	61
Table 19. Summary of Proposed Projects by Focus Area#7.....	62
Table 20. Summary of Proposed Projects by Focus Area#8.....	63
Table 21. Summary of Proposed Projects by Focus Area#9.....	63
Table 22. Summary of Proposed Projects by Focus Area#10.....	64

Table 23. Summary of Proposed Projects by Focus Area#11 .....	64
Table 24. Overview of Active Use Trail Classifications for Kawartha Lakes.....	50
Table 25. Overview of Shared Use Trail Classifications for Kawartha Lakes .....	51
Table 26. Overview of ORV / OHV Trail Classifications for Kawartha Lakes.....	51
Table 27. Overview of Trail Staging Area Design Alternatives by Trail Classification.....	52
Table 28. Overview of Project Phasing Assessment .....	72
Table 29. Overview of Proposed Infrastructure Implementation Process.....	87
Table 30. Overview of Education and Outreach Implementation Process .....	88
Table 31. Proposed New Trail Opportunity Consideration and Implementation Process	90
Table 32. Summary of Proposed Internal Roles and Responsibilities .....	92
Table 33. Overview of Partnership Opportunities & Expectations.....	95
Table 34. Overview of Additional Policy Topics and Considerations.....	104
Table 35. Overview of Preliminary Capital Costs by Focus Area .....	107
Table 36. Overview of Preliminary Capital Costs by Focus Area .....	107
Table 37. Overview of Preliminary Education & Outreach Capital Costs.....	108
Table 38. Preliminary Maintenance Cost Considerations for Kawartha Trails.....	110
Table 39. Overview of Minimum Maintenance Standards .....	115
Table 40. Summary of Proposed Trail Maintenance Practices by Trail Classification ...	116
Table 41. Potential Trail Evaluation Performance Measures.....	119

## List of Maps

Map 1 – 11 – Existing Trail Projects

Map 12 – 22 – Recommended Trail Projects

## Supporting Resources

*\*A series of supporting documents and tools have been prepared as part of the Trails Master Plan Update. These documents are referenced throughout the Report. If you wish to view or discuss any of the documents please contact Jenn Johnson; Manager of Parks and Recreation Division at [jjohnson@kawarthalakes.ca](mailto:jjohnson@kawarthalakes.ca) or 705-324-9411 ext. 1350.*



## Land Acknowledgement

The City of Kawartha Lakes respectfully acknowledges that we are situated on Mississauga lands and the traditional territory covered by the Williams Treaties.

We are grateful for the opportunity to be here, and we thank all the generations of people who have taken care of this land - for thousands of years. We recognize and deeply appreciate their historic connection to this place. We also recognize the contributions of Métis, Inuit, and other Indigenous peoples, both in shaping and strengthening this community and country as a whole.

This recognition is connected to our collective commitment to make the promise and the challenge of Truth and Reconciliation real in our community.

## Team Acknowledgement

We want to thank the considerable efforts of the City of Kawartha Lakes staff who guided the development of the Trails Master Plan Update.

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We would also like to acknowledge the considerable efforts and meaningful input provided by the stakeholders and residents of the City of Kawartha Lakes who represent trail users, enthusiasts, and stewards as well as local agencies and interest groups.

# Glossary

AODA- Accessibility for Ontarians with Disabilities Act

AT- Active Transportation

ATMP - Active Transportation Master Plan

ATV- All-terrain Vehicle

BIA- Business Improvement Association

GIS- Geographic Information System

OHV- Off-Highway vehicle

OP- Official Plan

OPP- Ontario Provincial Police

ORV - Off-Road Vehicle

KATVA- Kawartha ATV Association

KLAAC- Kawartha Lakes Accessibility Advisory Committee

KRCA- Kawartha Region Conservation Authority

KSC- Kawartha Snowmobile Club

KTCT- Kawartha Trans Canada Trail

TAC- Technical Agency Committee

TMP- Trails Master Plan

TMPU- Trails Master Plan Update

VRT or VRTC- Victoria Rail Trail (VRT) corridor

# 1.0 Purpose and Context

The City of Kawartha Lakes is a growing municipality made up of several unique communities, including the settlement areas of Lindsay, Bobcaygeon, Fenelon Falls, Omemee and Woodville. These communities are located amidst a rich and diverse natural environment, with over 350 km of trails winding through the towns, and abundant farmland. Details on the trail locations and lengths are found in Section 1.4.

The City of Kawartha Lakes, in partnership with external partners, has long been a proponent of recreational activities, tourism, and travel through the design and development of trails. The municipality and the trails found within it, such as the significant Victoria Rail Trail and Kawartha Trans Canada Trail, are appealing destinations for visitors from across Ontario and beyond.

**The Trails Master Plan Report has been developed with the intent of serving as the City's policy support, blueprint, and guide to trail planning, design, implementation, management, and maintenance.**

The information contained within this report includes a series of trail recommendations which have been developed, reviewed, and confirmed based on input from City staff, stakeholders, and decision makers. They reflect the strong history of trail planning established by the City as well as reflections on the strengths, weaknesses, opportunities, and threats that need to be addressed over the next 20 years.

This master plan report is supported by a series of documents, mapping and tools including the **Part 1 Summary Report** which documents the process and outcomes of the initial stages of the project.

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Please refer to **Part 1 Summary Report** for...

*Trail plan objectives and considerations & engagement findings*

*(Section 1.0)*

*Trail history, challenges, and opportunities & assessment of 2006 recommendations*

*(section 2.0)*

*Trail planning & design considerations*  
*(Section 3.0)*

*Proposed Trail vision, principles & planning / design next steps*

*(Section 4.0)*

The information contained within the City of Kawartha Lakes Trails Master Plan Update (TMPU) aims to support achieving **Recreational Mobility for All**. Chapter 1.0 provides an overview of how the TMPU was developed, additional context on trail planning, design, and implementation in the City historically, an overview of the vision and principles of the plan, and the evergreen approach to trail planning.

## 1.1 TMPU Purpose

This Trails Master Plan is the result of a process initiated by the City of Kawartha Lakes and supported by CIMA+ to review and revisit the 2006 Trails Master Plan to reflect the progress made and context specific challenges over the next 20 years. As the project unfolded it became clear that a more holistic review of the effectiveness of the original plan and reconsideration of approach, recommendations and implementation tactics was needed. The purpose of the project shifted from a trails master plan update to a re-envisioning of how trails are planned, designed, implemented, managed, and maintained leveraging the efforts of key municipal partners and stakeholders. More specifically, the 2023 Trails Master Plan update aims to provide the City with...

- A robust, thoughtful, and informed update to the 2006 Trails Master Plan.
- A plan that reflects the unique conditions and context found within Kawartha Lakes.
- The identification of feasible and implementable series of trail projects aimed at improving the experience and encouraging participation in trail activities.
- Strategies to increase awareness of trails in Kawartha Lakes with a commitment to greater accessibility and improved recreational mobility.



“Walking, biking, skiing, or snowshoeing on the trail has been an excellent way to exercise during the pandemic...During the early spring and late fall local folks and many, many people from out of area have discovered the trail and enjoyed the benefits.”

– Stakeholder Input



## 1.2 Project Overview

The Trails Master Plan Update was initiated in July 2021 and was completed using a three-part work plan, see **Table 1** for additional details on the scope of work and timeline.

A core foundation of the Trails Master Plan Update was the design and implementation of a robust engagement program to inform, involve, consult, and strategically empower decision makers, City staff, agencies and surrounding municipalities, advisory committee members, interest groups and community organizations and residents.

There were two rounds of focused engagement that was conducted while allowing for a continuous opportunity for input throughout the project cycle. Efforts were made to ensure that all groups were involved in the engagement process of the trails master plan. The purpose of each round of engagement was as follows:

- **Round 1** - introduce the project and gather preliminary input on trail experiences, opportunities, and challenges to establish a vision. This round was used to validate outcomes of phase 1 and inform phase 2.
- **Round 2** - present preliminary trail improvements and design considerations and gather input on trail priorities. Round 2 was used to refine outcomes of phase 2 and inform recommendations in phase 3.

Phase 1 Background Review	Phase 2 Network Development	Phase 3 Plan & Implementation
<ul style="list-style-type: none"><li>• Background review and foundations</li><li>• Develop the foundations of the trails master plan and work with community members to identify the needs, challenges, opportunities, and preferences prior to re-defining the goals, objectives, and outline.</li></ul>	<ul style="list-style-type: none"><li>• Network Review and Design/ Education</li><li>• Assess proposed trails and identify potential candidates prior to confirmation.</li><li>• Identify design solutions, development standards and a supporting trail education and encouragement strategy.</li></ul>	<ul style="list-style-type: none"><li>• Trail implementation and Master Plan development</li><li>• Develop a trails supportive implementation strategy including phasing plan, action strategy.</li><li>• Review and update of City policies, by-laws and processes to support trail planning, design, and development.</li></ul>

**Table 1. Overview of Trails Master Plan Development Process**

**Table 2** provides an overview of the various engagement tactics and activities that were undertaken to inform the development and confirm the outcomes of the Trails Master Plan Update.

Activity	R1 dates	R2 dates
1. Technical Agency Meeting	19.10.21	12.04.22
2. Stakeholder Meeting	19.10.21	12.04.22
3. Public Information Session	04.11.21	13.04.22
4. Working Group Session	29.11.21	20.04.22

**Table 2. Overview of Engagement Activities as part of the TMPU**

Considering the intent and purpose of each round of engagement, there were some key themes that emerged because of the input received and discussion held. **Table 3** provides a summary of the key themes from each round of engagement.

Round 1 Key themes...	Round 2 Key themes...
<ul style="list-style-type: none"> <li>Significance of the existing trail network but a lack of momentum since the last plan was adopted.</li> </ul>	<ul style="list-style-type: none"> <li>Preliminary focus areas were presented with options for consideration regarding potential design solution alternatives.</li> </ul>
<ul style="list-style-type: none"> <li>Overall user conflict, safety and comfort of users was noted as a major concern for trail users.</li> </ul>	<ul style="list-style-type: none"> <li>Concern was expressed over the consideration of various users relative to the design of new trails or improvements to existing trails.</li> </ul>
<ul style="list-style-type: none"> <li>Areas of improvement as well as the desired improvement type were highlighted with potential solutions provided.</li> </ul>	<ul style="list-style-type: none"> <li>Discussion occurred regarding consideration for trail maintenance, monitoring and education along with trail construction.</li> </ul>
<ul style="list-style-type: none"> <li>Identification of successes from the last plan as well as lessons learned for consideration as part of the TMPU.</li> </ul>	<ul style="list-style-type: none"> <li>Potential partnership opportunities were identified with key stakeholders.</li> </ul>

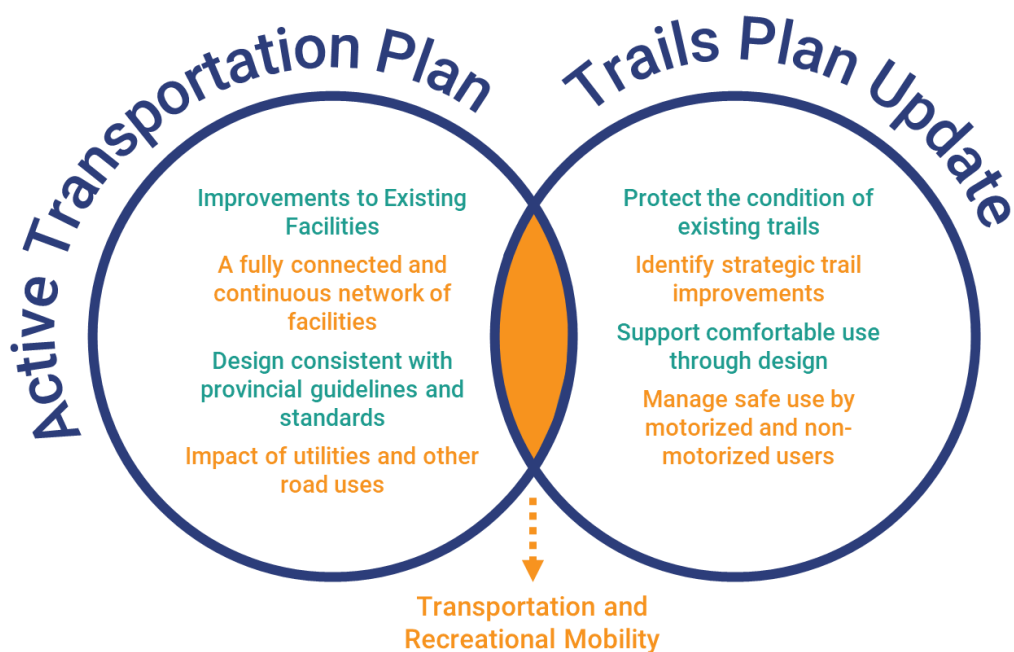
**Table 3. Summary of Key Engagement Themes**

### 1.2.1 Active Transportation Integration

It is important to acknowledge the work that is being done by the City on complementary projects, most importantly the Active Transportation Master Plan (ATMP) which was in development at the same time as the TMPU. At the core, both plans aim to provide Kawartha Lakes with recommendations and strategies to improve mobility for people who live, work, and play within the City – whether it be for transportation i.e. day to day trip purposes or recreational purposes. Considering the TMPU and the ATMP are being completed by different departments at the City of Kawartha Lakes there are different scope elements, drivers, and implementation priorities. There are two critical differences in the TMPU and the ATMP providing strong rationale as to why they were completed separately:

1. A trails master plan addresses a very specific type of facility – a trail. Trails are unique in that they are found off-road and typically highlight areas of natural significance for recreational purposes. They also can be used for both active and non-active forms of transportation.
2. An ATMP looks at providing proposed design interventions that address the way people move using active forms of transportation such as walking, cycling or other self-propelled forms of transportation. It only identifies opportunities for a specific type of user and typically pertains to on-road or in-boulevard facilities.

**Figure 1** illustrates some other key differences of the plans which are described in more detail in Table 1 of the Part 1 report.



**Figure 1. Comparison of TMPU and ATMP Scope of Work**

There are very clear opportunities for overlap between the two plans and it is necessary to ensure that the recommendations adopted through the TMPU are complementary to those that are in the ATMP.

A successful and fully connected active transportation and recreation network will only be achieved through the implementation and strategic coordination of both plans with ongoing collaboration between staff and stakeholders. Where possible, the complementary plan elements have been leveraged.

### ***TMPU & ATMP Complementary plan elements...***

- **Feedback gathered through engagement activities** as there were several stakeholders that were involved in both planning processes who expressed similar interests and needs.
- **Quality of design and accessibility** to ensure that those using trails or active transportation (AT) infrastructure feel comfortable and safe and there are limited to no barriers to access.
- **Coordination of implementation timeline** to ensure that projects and initiatives that are complementary or achieved connectivity are identified for the same year and/or horizon.
- **Leveraging new development opportunities** including the identification of parkland dedication as trails and/or AT infrastructure on new roadways in new residential or development areas within the denser communities
- **Policy alignment and support** to allow for a greater degree of long-term support through policies that impact trails and AT through the same tool or ensuring that there are no policies that prevent support or create unanticipated barriers.
- **Education and encouragement** of the public to increase overall awareness of an interest in being more active or participating in recreational activities within the City – whether it is year-round or seasonal residents or visitors.
- **Overall culture shift** towards a greater degree of mobility for people of all ages and abilities is prioritized in both plans and is the commitment that drives the development of plan recommendations.



## 1.3 Trail Context

Kawartha Lakes has a long history of supporting trails. Stemming from a strong local interest and desire to provide fun and enjoyable experiences for residents and visitors, the municipality has been investing in the planning, design, implementation, and management of trails for years. Much of this investment has been done in partnership with key agency and stakeholder partnerships including but not limited to the Kawartha ATV Association, municipal committees, clubs, and interest groups, conservation authorities, Parks Canada and Ontario Parks, and others.

However, there are also some considerable challenges that continue to arise in Kawartha Lakes, stemming from increasing demand and interest from local and non-local trail users. Before recommending updates to the Trails Master Plan and establishing the proposed strategy for the next 20 years, it was important to have a deeper understanding of the history in Kawartha Lakes, as well as the wider context that influences how area trails are planned, designed, and implemented.

To understand the trails history in Kawartha Lakes, the following tasks were undertaken:

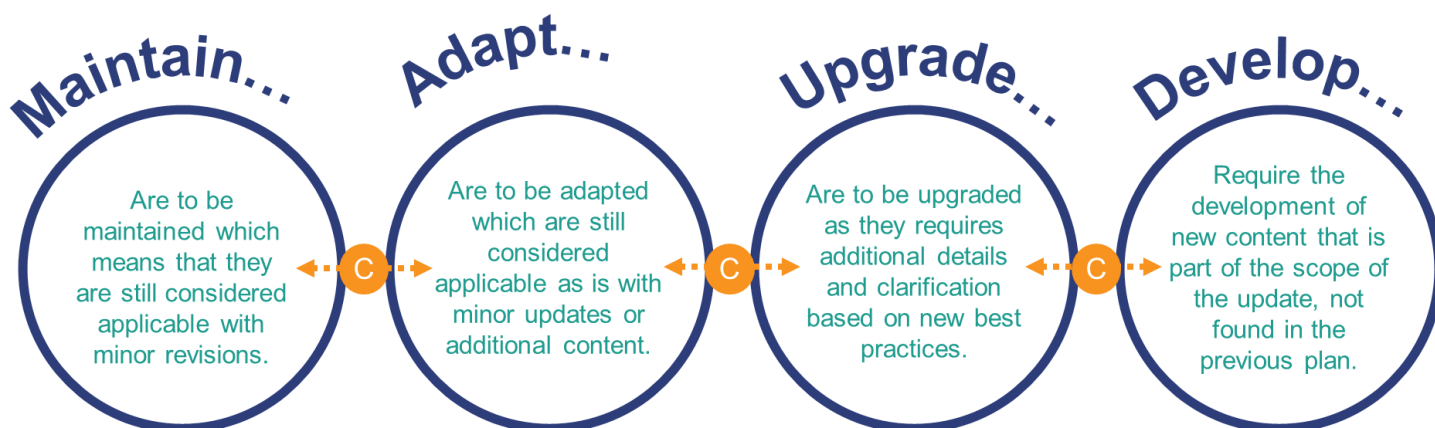
- Review and assessment of the applicability of the 2006 trails master plan.
- A review of population and geographic information to create a community profile relative to trail needs.
- A review of local and provincial policies in the context of understanding policy support (existing) and how trails “fit” within the wider policy context.
- The integration of the trails plan relative to other active transportation initiatives and aspirations.

### 1.3.1 The 2006 Trails Master Plan

The 2006 Trails Master Plan was met with celebration at the time of development and was intended to be used as the blueprint for trail planning, design, and implementation for a 15-year time frame. The plan was ambitious in the way that it inspired community members and stakeholders, but also presented challenges from an implementation perspective for city staff and decision makers. The plan was developed based on achieving and fulfilling the vision that...

**“Trails in Kawartha Lakes will be safe, accessible, support attractive and livable communities, and be sustainable...”**

Almost 15 years have passed since the adoption of the original Trails Master Plan reflecting the timeline within which all the recommendations identified in 2006 were meant to be implemented. At a high-level, the update to the trails master plan means that sections and content of the original plan:



**Figure 2. Overview of Updates to be made to the 2006 Trails Master Plan**

While the 2006 vision seemed achievable, feedback to the Trails Master Plan Update process indicated that the original vision may have been considered too general and perhaps did not provide enough direction and specificity on the intended outcomes. Similarly, the objectives included a range of very specific directions as well as high-level targets. This inconsistency led to some challenges when it came to the implementation of recommendations and strategies.

This is partially due to how much has changed in the intervening years. Kawartha Lakes has grown and developed considerably as a residential and tourism destination. There has also been significant evolution in how trails are planned, designed, promoted, implemented, maintained, and evaluated. **Table 4** provides additional detail on the critical assessment of the 2006 Trails Master Plan and the opportunities that were identified and incorporated into the 2023 update.

Aspects	Challenges with 2006 Plan	Opportunities for 2023 Plan
<b>User Management</b>	<ul style="list-style-type: none"> <li>The plan does not clearly address user management related to the design/safety needs of different trail uses (hikers, cyclists, ATV users, snowmobiles, etc.)</li> <li>Links to communities using existing or future trails were not prioritized, which in some locations has led to isolated trails and trail experiences that are hard to get access to.</li> </ul>	<ul style="list-style-type: none"> <li>Kawartha Lakes has unique trails and trail experiences that are a draw for people within and around the City, the “fun” should be leveraged.</li> <li>There are a variety of trail experiences for different users and uses with the potential for expansion considering the wide geographic context.</li> </ul>
<b>Education &amp; Wayfinding</b>	<ul style="list-style-type: none"> <li>Effective communication of trail opportunities, access, route alignment and user considerations is not set out or prioritized.</li> </ul>	<ul style="list-style-type: none"> <li>Trails need to be well marked and properly identified from a communication perspective, and to understand who the most appropriate users are and how they can best enjoy the trails comfortably and safely.</li> <li>Getting to and from trails should be clear as well as convenient; the experience when on the trails should be safe, peaceful, enjoyable, and relaxing.</li> </ul>
<b>Trail Design</b>	<ul style="list-style-type: none"> <li>A lack of consistent trail design and application throughout the municipality, and a lack of focus on connecting the trail design with specific users – either restrictions or permission.</li> </ul>	<ul style="list-style-type: none"> <li>Design should consider solutions to make the trails easy to access – for accessibility and connectivity.</li> <li>Trails should be a destination in themselves, while also highlighting adjacent destinations.</li> </ul>
<b>Maintenance &amp; Monitoring</b>	<ul style="list-style-type: none"> <li>Though securing funding is an objective, there has been a lack of long-term investment in trail development and maintenance.</li> <li>A strategy was not provided to address monitoring and enforcement in areas of concern beyond individual groups.</li> </ul>	<ul style="list-style-type: none"> <li>Maintenance should be a priority taking into consideration the different seasonal uses but also year-round maintenance to ensure that there are no barriers to use.</li> </ul>

Table 4. 2006 Trail Plan Challenges and Opportunities

The 2006 Trails Master Plan included:

**23** recommendations covering a range of topics.

More specifically, 9 topics of recommendations were identified including...

1. Trail planning and management
2. Victoria Rail Trail (VRT) corridor
3. Future trail corridors
4. Forest management tracts and conservation areas
5. Road based cycling routes
6. Insurance and liability
7. Line Fences Act
8. Project costs
9. Potential funding sources

***Of the 23 recommendations in the 2006 plan...***

- 6 are considered implemented.
- 7 are considered partially implemented.
- 10 have not been implemented.

***In terms of their applicability....***

- 12 are still applicable.
- 5 are no longer applicable.
- And of the 12 that are applicable; 5 require reconsideration.

A more comprehensive and detailed assessment of the 2006 plan recommendations and their status and applicability is found in Section 2.1, Table 5 of the Part 1 Summary Report.

As a result of this comprehensive review, engagement and assessment, a new vision statement and supporting principles were identified (see Section 1.5 of the TMPU) and a total of 27 recommendations have been identified. These recommendations and supporting information/rationale are the basis for Chapters 2.0 and 3.0 of the TMPU.



### 1.3.2 Socio-Demographics and User Profiles

Quite a lot has changed since the original Trails Master Plan was developed, not only in the way trail planning is approached but in the way that Kawartha Lakes has grown and developed as a residential and tourism destination. COVID-19 has also had a considerable impact on individual and community behaviours including a significant increase in the demand for and use of recreational opportunities such as outdoor based leisure, fun and fitness.

These population, societal and geographic impacts have and will continue to shape for whom, how and why we plan for trails. A community profile has been developed for Kawartha Lakes and is illustrated on page 14. The profile helps to identify unique strengths, weaknesses, opportunities, and threats based on the place and people within it including the significant difference between population density relative to the natural areas and destinations in the north and south.

The community profile gives an understanding of the current socio-demographic and geospatial patterns in the City; however, one of the strongest pieces of feedback received from the 2006 Trails Master Plan and through the Round 1 engagement was a strong desire for greater clarity on intended trail users.

Defining trail users, though effective, is not a one size fits all approach. A trail user can one day experience trails on a bike and the next on a four-wheeler or ATV. This can make the consideration and application of trail user design needs somewhat of a challenge but also an opportunity.

For Kawartha Lakes, trail user definitions have been developed within three categories as outlined in [Table 5](#). The categories were developed to reflect provincially and nationally accepted definitions and standards as well as the Kawartha Lakes-specific stakeholder and population trends. The application of trail user definitions have informed:

- The identification and confirmation of improvements to existing trails as well as new trails.
- The design of trail classifications (i.e. the type of trail) and supporting infrastructure such as amenities, staging areas/trailheads, etc.
- The development of communication materials as well as the design and implementation of signage and wayfinding at trailheads or access points.
- The identification and recommendation of maintenance practices, both year-round and seasonal.
- The identification and recommendation of enforcement and management strategies spearheaded by the municipality in partnership with trail user specific organizations.

Use Type	Trail Considerations	Users Accommodated
Active Use	<ul style="list-style-type: none"> <li>Focus on accommodating safe trail use by those who use self-propelled or accessible/mobility supportive devices.</li> <li>Includes niche uses e.g., equestrians, as well as seasonal uses such as snowshoeing, Nordic skiing, etc.</li> <li>Would require consideration for e-mobility devices based on local policy and application (see page 14 for definitions of these users).</li> </ul>	<p>Pedestrians, cyclists, and other self-propelled forms of active mobility</p> 
Shared Use	<ul style="list-style-type: none"> <li>Focus placed on accommodating safe trail use by active transportation uses as well as ORV users in a way that reduces conflict.</li> <li>Safety and comfort are heavily dependent on providing sufficient space, education, enforcement and potentially separation for users.</li> <li>Design could also play a role in how the trail is perceived and used by different users leading to self-management.</li> </ul>	<p>Pedestrians, cyclists, and other self-propelled forms of active mobility as well as off-road motorized vehicles</p> 
ORV Use	<ul style="list-style-type: none"> <li>Focus placed on motorized vehicles that have been manufactured for off-road use including ATVs, utility vehicles, side by sides, snowmobiles, and dirt bikes (among others).</li> <li>Environmental impacts of uses need to be considered when designing the trail and frequent maintenance.</li> <li>Start and end of trip design as well as amenities to support trips are also critical to user experience.</li> </ul>	<p>Off-road vehicles including summer and winter season motorized vehicles</p> 

Table 5. Overview of Trail User Types for Kawartha Lakes

## key statistics

**75,423** total pop.  
**25%** of pop. over 65  
**13%** of pop. under 14

**↑ 3%** pop. growth 2011-2016  
**24.5** pop. per sq.km  
**\$67,187** median household income

**1.5** hours to Toronto  
**3,084** sq.km land size

**55%** commute within Kawartha Lakes  
**45%** commute outside Kawartha Lakes

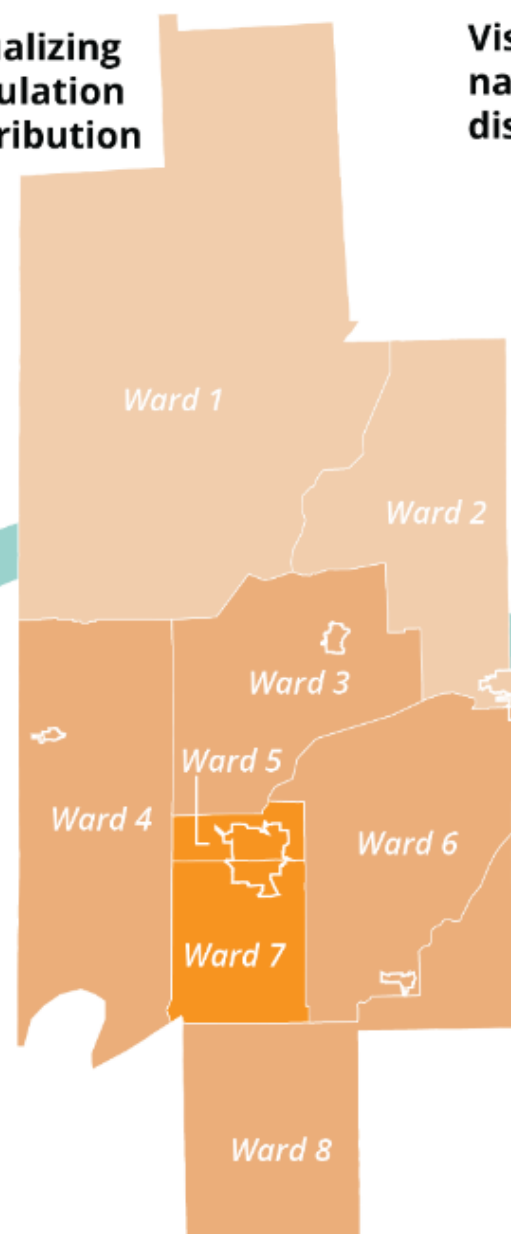
**1.6** million visitors annually  
**3,792** hectares of forest tracts

**83%** live in a single family home  
**over 100** local parks

## Thinking of population and geography spatially

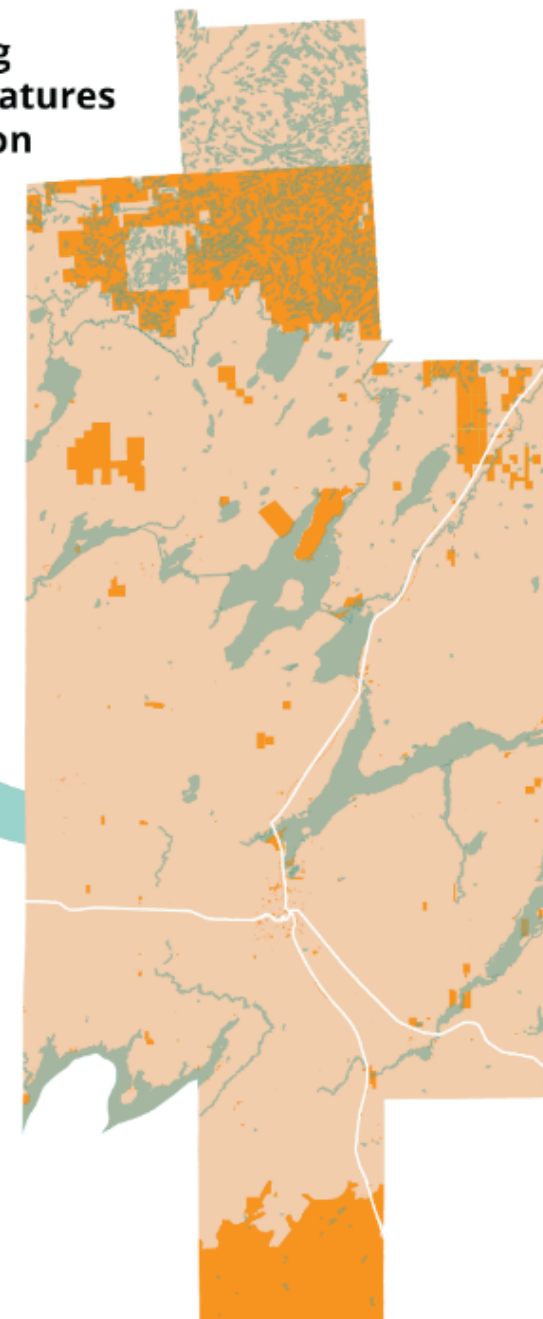
For the context of the Trails Master Plan, it is important to understand how both the population and the key geographical features of Kawartha Lakes interact and could inform trail development and design.

### Visualizing population distribution



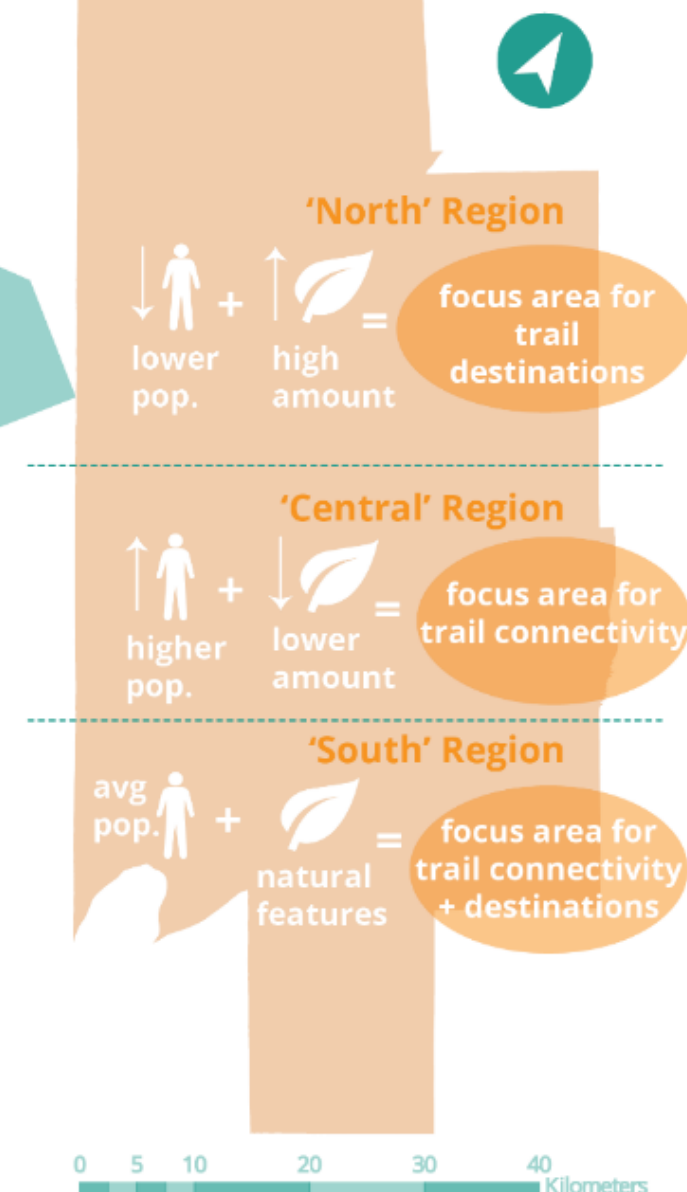
**Population**  
 Less than 10,000  
 10,000-12,000  
 Over 12,000  
 Urban settlement boundaries

### Visualizing natural features distribution



VRTC/ TCT  
 Natural features (conservation areas, provincial parks, forest tracts and parks)  
 Waterways

### Applying to trail considerations



It is acknowledged that there may be other trail specific user and use considerations that need to be addressed. The following are answers to some of those questions.

### ***Are equestrians or water-based users being considered?***

Consideration will be given to on-land trail niche uses through design accommodation on existing and proposed trail linkages. Specific routes for equestrians will not be identified or designed as part of the network. Connections to waterways is considered a priority and accommodating potential users at water access points will be considered but like equestrians', kayak or canoe routes will not be identified as part of the network.

### ***How do we consider different types of pedestrians and cyclists?***

The rationale and reason for different people to take a walk or a bike ride can be influenced by many different factors, including their sense of safety and comfort, weather, time of the day, location of the trail, amount of time available for the experience, etc. When discussing pedestrians and cyclists it is important to consider user vulnerability. Some groups of pedestrians and cyclists are more vulnerable than others, such as children, older people, and people living with disabilities. We have specifically addressed the comfort of more vulnerable users through trail design.

### ***Where do other winter users "fit"?***

Encouraging seasonal and winter use is important in Kawartha Lakes. There is already a strong foundation of winter users, but a significant variation in how active users are accommodated, in contrast to ORV users. There is some promotion of trails for winter use, but limited direction on how best to maintain the trails at the municipal level or coordination with external groups. There are a series of maintenance recommendations, tactics and supporting tools that have been identified in the TMPU.

### ***What do we mean by e-bikes?***

'E-bike' is a bicycle equipped with an electric motor that may be activated in order to assist with pedalling – sometimes called "e-assist" or "pedelec" (electric pedal assisted) bicycles. E-bikes are a form of "micromobility," along with other types of small, lightweight vehicles operated at low speeds. In Ontario, e-bikes are limited to a motor with a maximum of 500 watts, a maximum assisted speed of 32 km/h, and a maximum weight of 120 kg, and must have working pedals for human propulsion. Most e-bikes look like traditional bicycles and typically have an external electric motor to supplement pedaling. Some e-bikes more closely resemble a motor-scooter or moped. E-bikes are considered a means of accessible use and are considered permitted on trails as long as they meet the above criteria, including speed restrictions.



### 1.3.3 Policy and Implementation Tools

Policies are the tools that are used by planners and other municipal staff to guide where, how, and what is built. They provide the blueprint for growth and development of a community while also addressing critical principles of mobility, environmental protection, economic growth, and infrastructure services. Planning is based on a framework or policy hierarchy that stems from high level provincial policies down to area-specific municipal plans.

While policy can be effective, the most effective tools sometimes come in the form of by-laws, guidelines/standards and other implementation tools adopted, implemented, and most importantly enforced by the municipality. Kawartha Lakes has developed and adopted several of these tools/documents to manage trails more effectively.

An illustration of the existing policy framework is presented on page 17. [Table 6](#) summarizes the specific policies that were reviewed.

Trails are strongly supported by existing municipal policies and plans and while there are some provincial policies that provide a strong foundation for trail support, there are few that have a direct impact (geographically) on how trails are planned and designed relative to other land use planning.

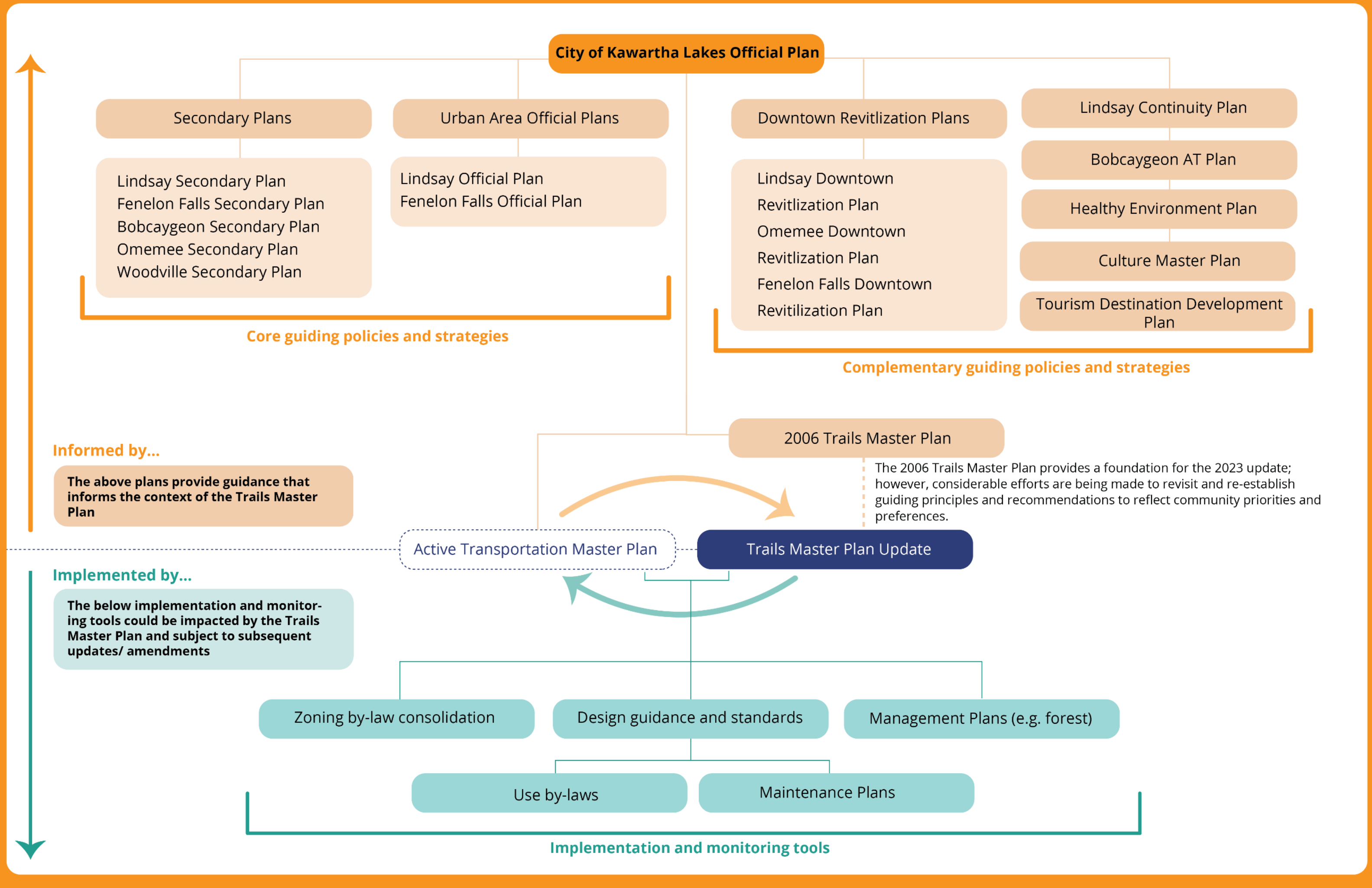
The policies found within the City's Official Plan documents provide considerable support for expanded transportation and recreational opportunities as well as the leveraging of future growth in built up areas for more active travel. Site specific functional master plans and strategies such as revitalization plans, Active Transportation plans, Healthy Environment Plan, etc. provide routing concepts which provided a strong foundation for the off-road improvements that are reviewed and recommended in the TMPU.

Regarding the design of trails, due to the nature of trail location and context it can at times be a challenge to achieve consistency. In addition to some of the context specific guidance that is provided by the City, guidance tends to come from federal and provincial sources, which can be unique for off-road trails.

Some key resources include the Rails to Trails Conservancy, Ontario Trails Council, Trails for All Ontarians Collaborative Guidelines, Accessibility for Ontarians with Disabilities Act - Built Environment Standards, Ontario Traffic Manual Book 15: Pedestrian Crossings and Ontario Traffic Manual Book 18: Cycling Facilities, among others.

Agency Application	Policies & Implementation Tools Reviewed
<p><b>Provincial Policy</b></p> <p>Policies developed and adopted by various ministries of the province which guide the overarching way in which land use and infrastructure is implemented</p>	<ul style="list-style-type: none"> <li>• Provincial Policy Statement</li> <li>• Growth Plan for the Greater Golden Horseshoe</li> <li>• Oak Ridges Moraine Conservation Plan</li> <li>• Lake Simcoe Protection Plan</li> <li>• National Active Transportation Strategy</li> <li>• Ontario Trails Strategy</li> <li>• MTO #CycleON Action Plan</li> </ul>
<p><b>Municipal Policies &amp; Implementation Tools</b></p> <p>Policies developed and adopted by the municipality with varying degrees of detail to address city-wide growth and development as well as service management</p>	<ul style="list-style-type: none"> <li>• Kawartha Lakes Strategic Plan</li> <li>• Kawartha Lakes Official Plan</li> <li>• Official Plans for Urban Growth Areas</li> <li>• Strategic Asset Management Policy</li> <li>• Forest Management Plan</li> <li>• Cultural Master Plan</li> <li>• Tourism Destination Development Plan</li> <li>• Municipal Accessibility Master Plan</li> <li>• Transit Master Plan</li> <li>• Healthy Environment Plan</li> <li>• Downtown Revitalization Plans (Lindsay, Fenelon Falls and Omemee)</li> <li>• Strategic Community Improvement Plan</li> <li>• By-law 2007-107 (Victoria Rail Trail use)</li> <li>• Bylaw 2019-077 (ATV/ORV)</li> <li>• Bylaw 2021-70 (Winter Maintenance)</li> <li>• Road Cross Sections &amp; Standard Details including CKL-403, 404, 406, 413 and 413 'B'</li> </ul>

Table 6. Summary of Applicable Provincial & Municipal Policies & Plans Reviewed



## 1.4 Trail Conditions

The intent of the TMPU is to build upon the considerable past efforts of City staff and stakeholders as it relates to the planning, design, and implementation of trails. Understanding the current trail context and conditions was a critical first step in preparing the master plan update.

The following section summarizes the investigation and in-field review of existing and previously planned trails, including an analysis of area destinations and incorporation of input from key stakeholders on the challenges and opportunities for trail improvement. Additional details are found in the Part 1 Summary Report.

### 1.4.1 Investigation and Review

The investigation and review component of the TMPU provides an assessment and confirmation of on the ground conditions of existing and previously planned trails. Considering the status of existing data and trail related information, significant effort was put into validating the data/information in the early stages of the project through both desktop and in-person review.

A three-step approach was used to complete the TMPU investigation, supported by staff and stakeholder site information. **Table 7** provides a summary of the three-step process and what was reviewed. A comprehensive database of conditions has been prepared and provided to the City for consideration and reference.

Step 1 GIS Validation	Step 2 Desktop Review	Step 3 Site Specific Review
A single consolidated trails GIS database did not exist for Kawartha Lakes but was identified as a significant need for future coordination and implementation of the Trails Master Plan Update.	To establish a greater understanding of the existing conditions a desktop review was completed of all identified trail routes, per the revised GIS database, as well as available planning documents.	In November 2021 and January 2022, members of the project team undertook a full day of in-person site visits to specific locations within Kawartha Lakes that were identified during the engagement process as having potential for improvement.

Step 1 GIS Validation	Step 2 Desktop Review	Step 3 Site Specific Review
<p>Necessary data layers included:</p> <ul style="list-style-type: none"> <li>• Victoria Rail Trail Corridor</li> <li>• Kawartha Trans Canada Trail Corridor</li> <li>• Trails</li> <li>• Cycling Routes</li> <li>• Sidewalks</li> <li>• Roads</li> <li>• Road Allowances</li> <li>• Railway Lines</li> <li>• Parks</li> <li>• Open Space</li> <li>• Conservation Areas</li> <li>• Provincial Parks</li> <li>• Provincially Significant Wetlands</li> <li>• Woodlands</li> <li>• Oak Ridges Moraine Protected Area</li> <li>• Waterbodies and Watercourses</li> <li>• City of Kawartha Lakes Owned Land</li> <li>• Official Plan Land Use</li> <li>• Destination Points</li> <li>• VRT Trailheads</li> </ul>	<p>Information was gathered about each trail including:</p> <ul style="list-style-type: none"> <li>• Trail start point</li> <li>• Trail end point</li> <li>• Relative demand of users</li> <li>• User types and variation</li> <li>• Presence of parking (on or off-road)</li> <li>• Connectivity (to additional trails or alternate AT routes)</li> <li>• Environmental features and description of those features</li> <li>• Ownership</li> <li>• Crossings</li> <li>• Other context specific considerations</li> </ul>	<p>Nine specific locations were investigated:</p> <ul style="list-style-type: none"> <li>• Location #1. Somerville Forest Tract</li> <li>• Location #2. Cross Connection-3rd Concession of Somerville</li> <li>• Location #3. Superior Road Trailhead</li> <li>• Location #4. Emily Forest Tract</li> <li>• Location #5. Fenelon Falls VRT</li> <li>• Location #6 VRT at Ken Reid Conservation Area</li> <li>• Location #7 VRT at Thunder Bridge Rd.</li> <li>• Location #8 VRT and KTCT at Dobson St. in Lindsay</li> <li>• Location #9 Pioneer Park in Lindsay</li> </ul>

Table 7. Summary of TMPU Trail Condition Investigation & Review

The result of the TMPU investigation and review was the identification of a comprehensive trail database and series of supportive mapping as the foundation for identifying potential trail projects and improvements – which are outlined in Section 2.1 of the TMPU report. **Maps 1** through **10** present the following information.

**Existing trails**...represent trail alignments and facilities that have been implemented, are currently being promoted or communicated publicly, and are (to some degree) maintained by the City of Kawartha Lakes and its partners. Existing routes include the Victoria Rail Trail, Kawartha Trans Canada Trail, trails through parks and open spaces, trails within Forest Tracts and in select locations through privately owned lands, or along municipal roadways.

**Previously adopted trails**...represent routes and facilities that have been identified through previous planning or engineering works and adopted through Council decision. They include routes taken from Secondary Plan/Development Areas, the Lindsay Continuity Plan, On-road Cycling Routes as identified by Tourism Kawartha (for reference/connectivity) and ORV routes from by-laws or Task Force decisions.

**Trail hot spots**...represent areas along the existing and previously planned network which represent areas of significant consideration relative to trail improvements due to:

- User compatibility issues
- Design standards
- Trailhead/staging areas needs
- Route realignment
- Natural barriers
- Transition points
- Crossings

**Potential new trail locations**...represent potential locations within Kawartha Lakes where new trails were explored, with a focus on publicly available lands as well as partnerships with other public agencies. Potential locations were determined through:

- Input from stakeholders, including municipal staff and the public.
- Mapping identification
- Field investigation



## 1.4.2 Trail Destinations

Destinations are the start and end locations that people use to determine a trip that is being taken. The TMPU identified destinations within Kawartha Lakes that currently or have the potential to generate recreational trips that could be taken using a trail.

Our assessment focused on identifying trip generators and destinations in the three geographic areas to better understand the types of trail opportunities, enhancements or supports that are needed.

**Figure 3** illustrates the major built-up areas and some key natural features within the Kawartha Lakes. The following is an overview of more detailed destination considerations within those areas.

### North

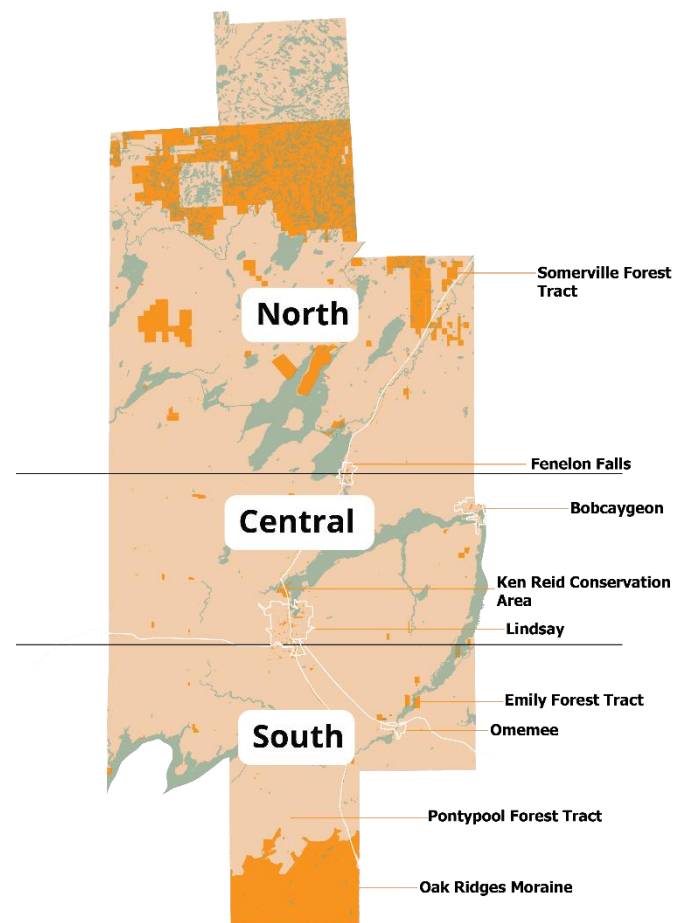
- The North area of Kawartha Lakes has many naturalized areas, including forest tracts and provincial parks.
- As such, it is a key area for trails as destinations for recreational activity including the Somerville Forest Tract trails and the Victoria Rail Trail North.

### Central

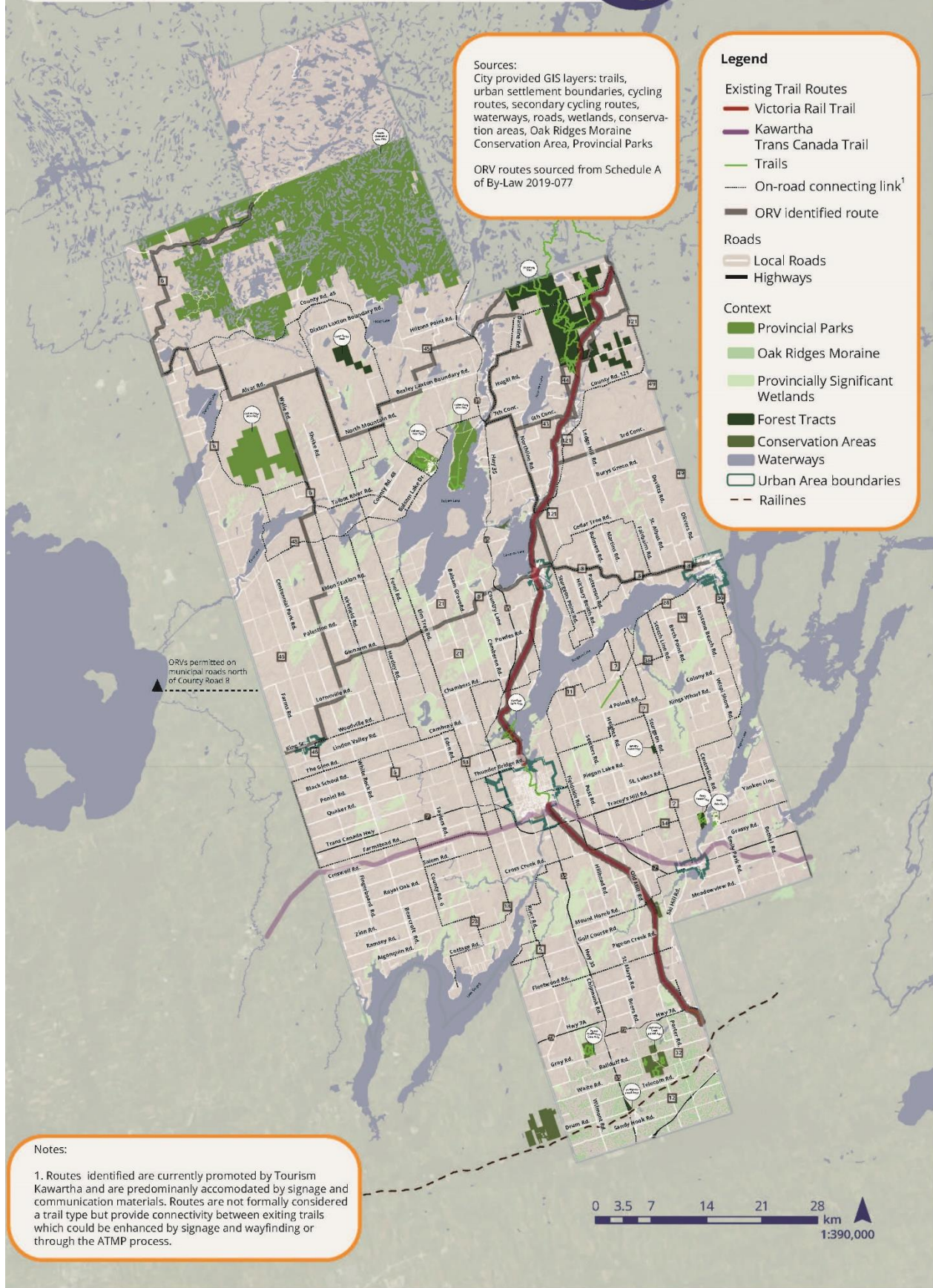
- The Central area of Kawartha Lakes has many urban areas and most of the population.
- As such, it is a key area for trails as a form of connectivity both within and between the urban areas.

### South

- The South area of Kawartha Lakes has both key natural features such as the Oak Ridges Moraine, provincial parks, and forest tracts as well key urban areas.
- As such, the south will have a focus both on trails for connectivity and trails as destinations for recreational activity.



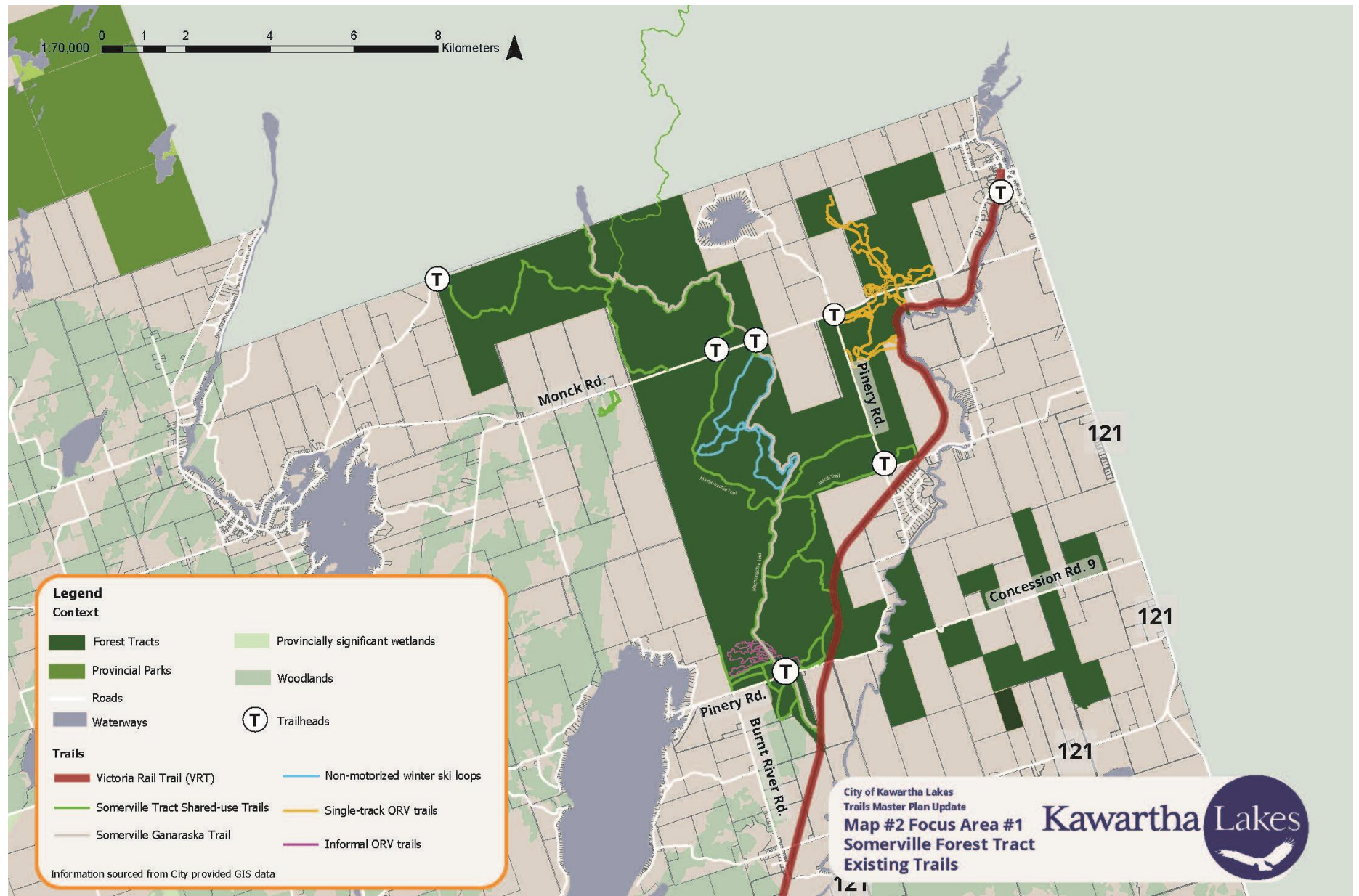
**Figure 3. Overview of Built-up Areas in the City**





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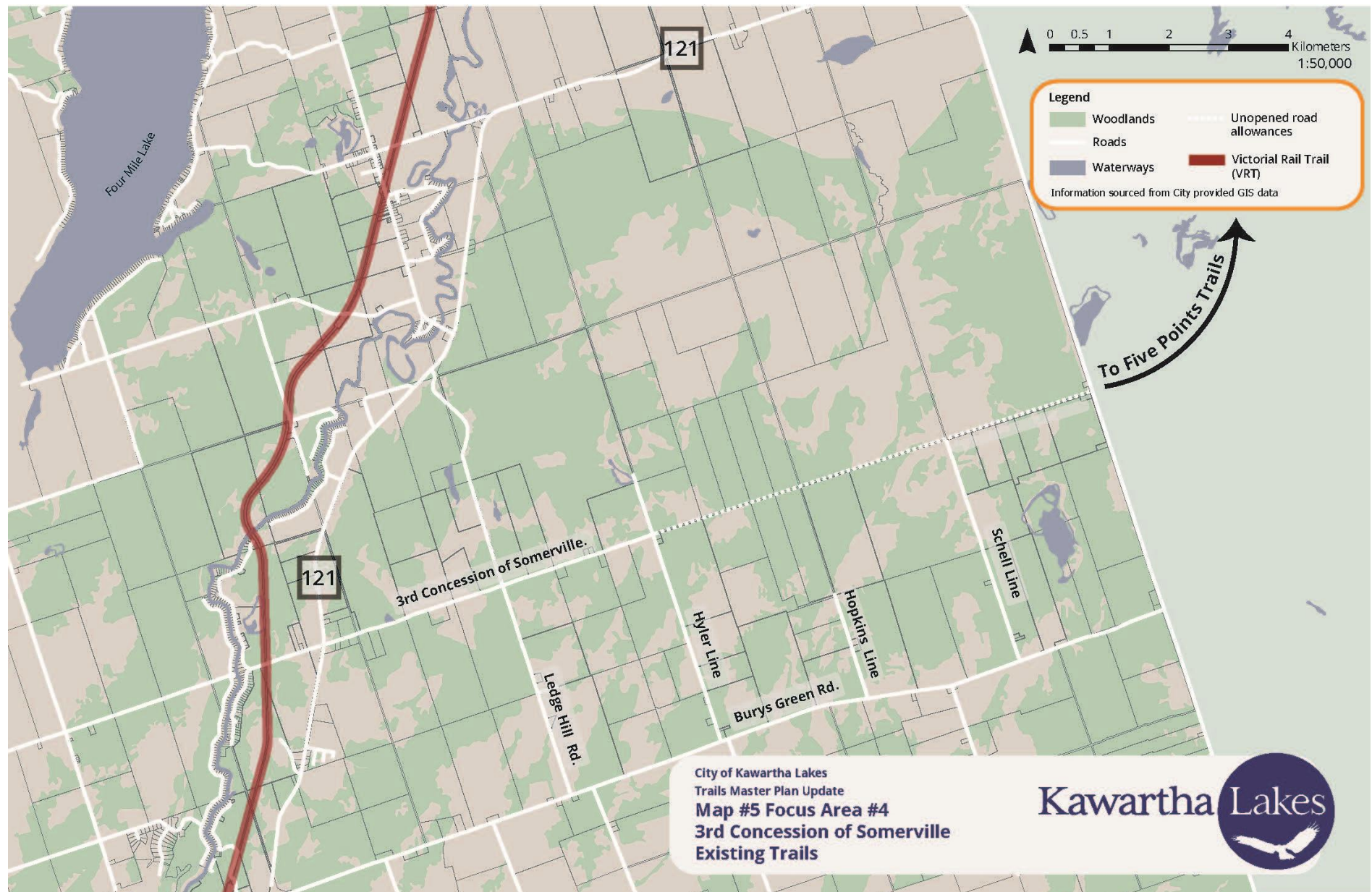
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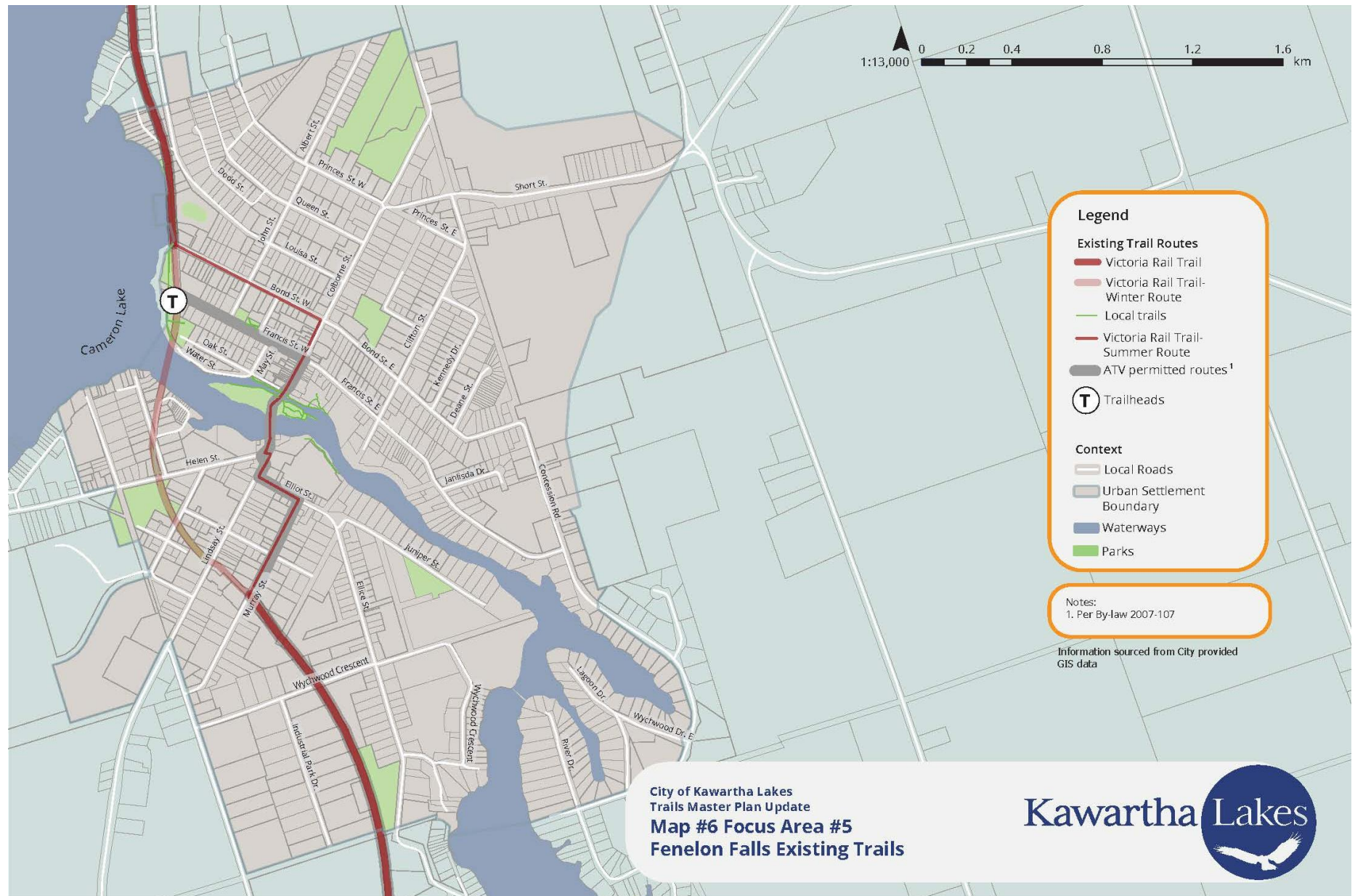
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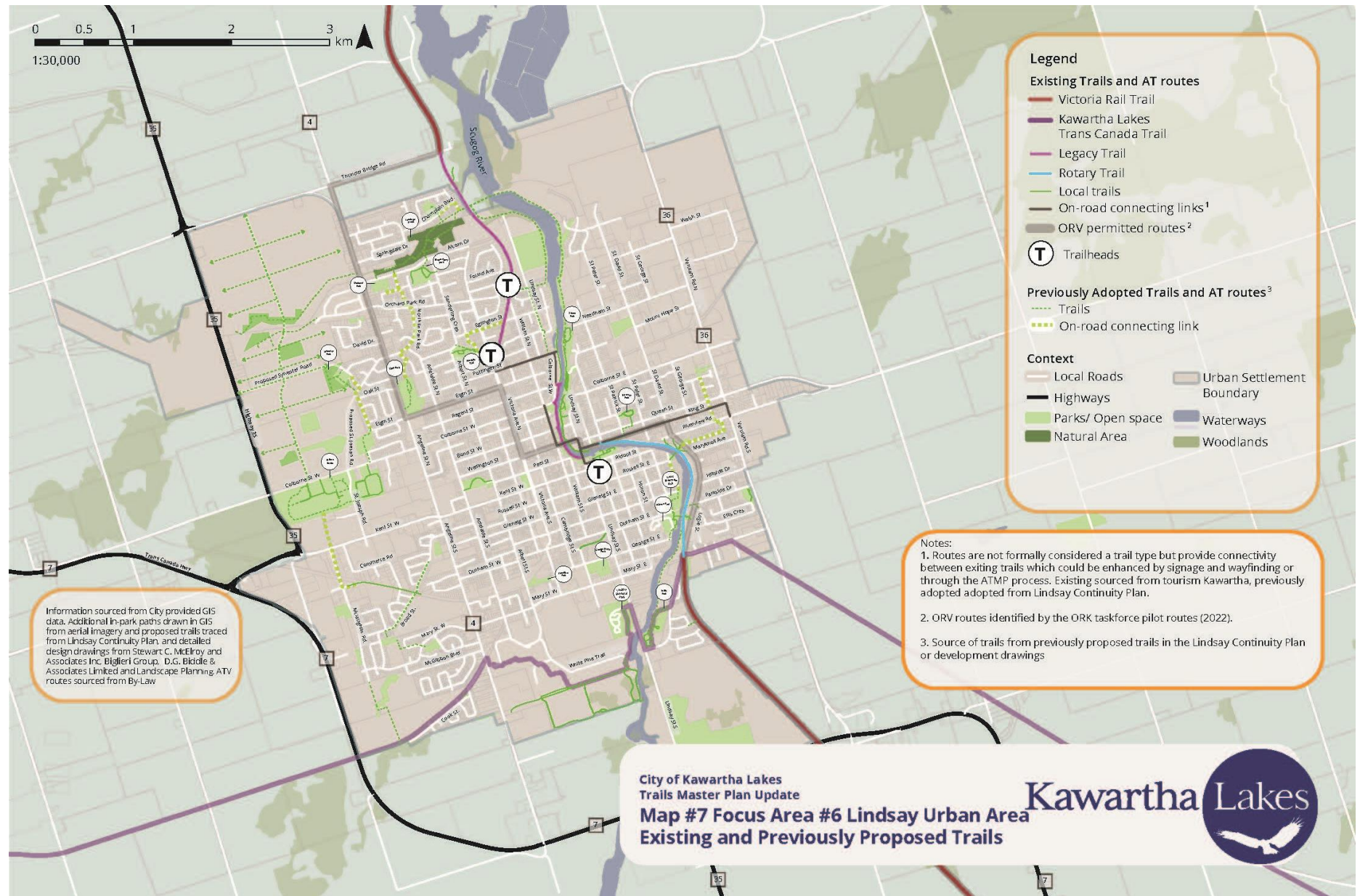
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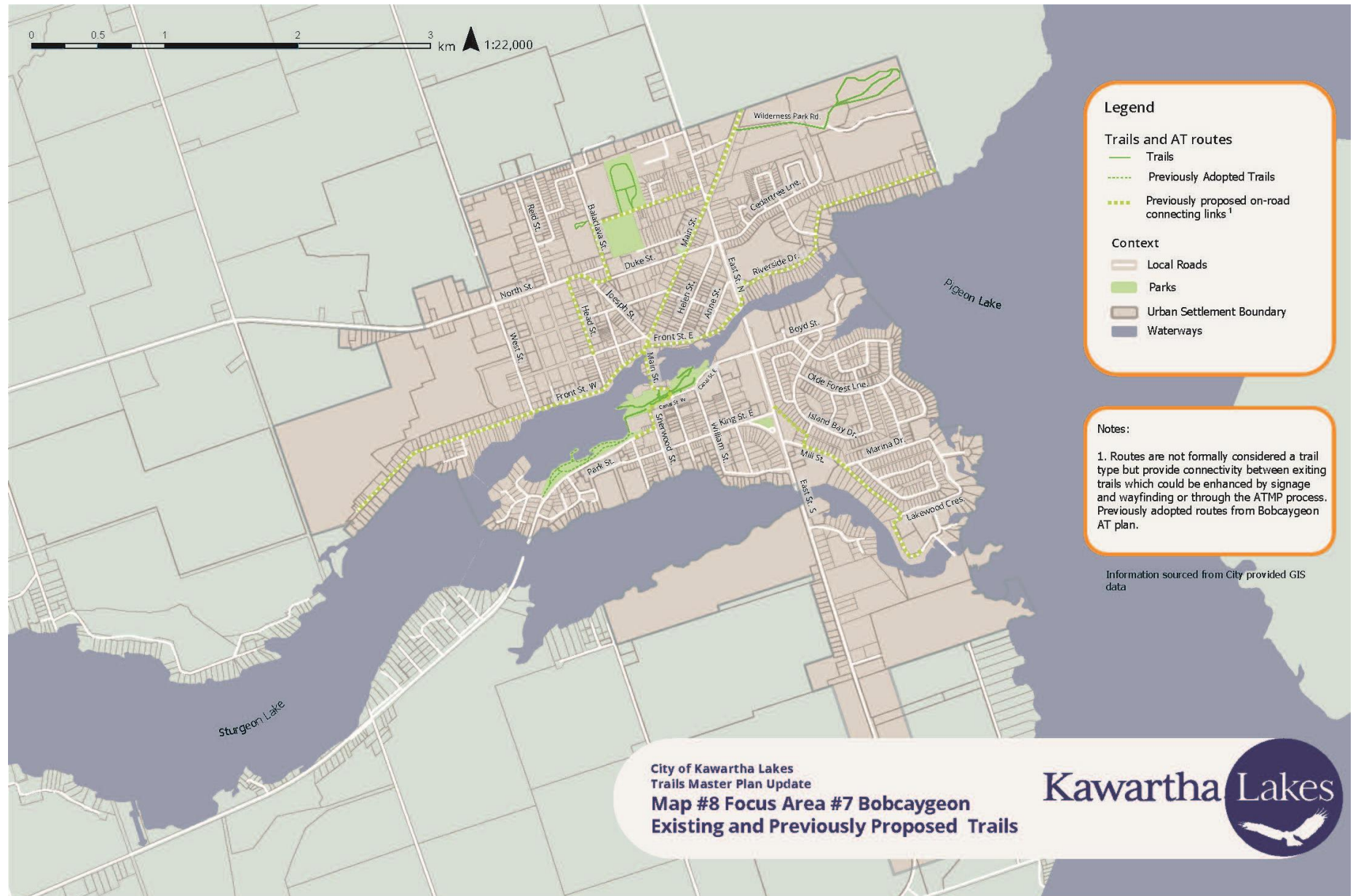
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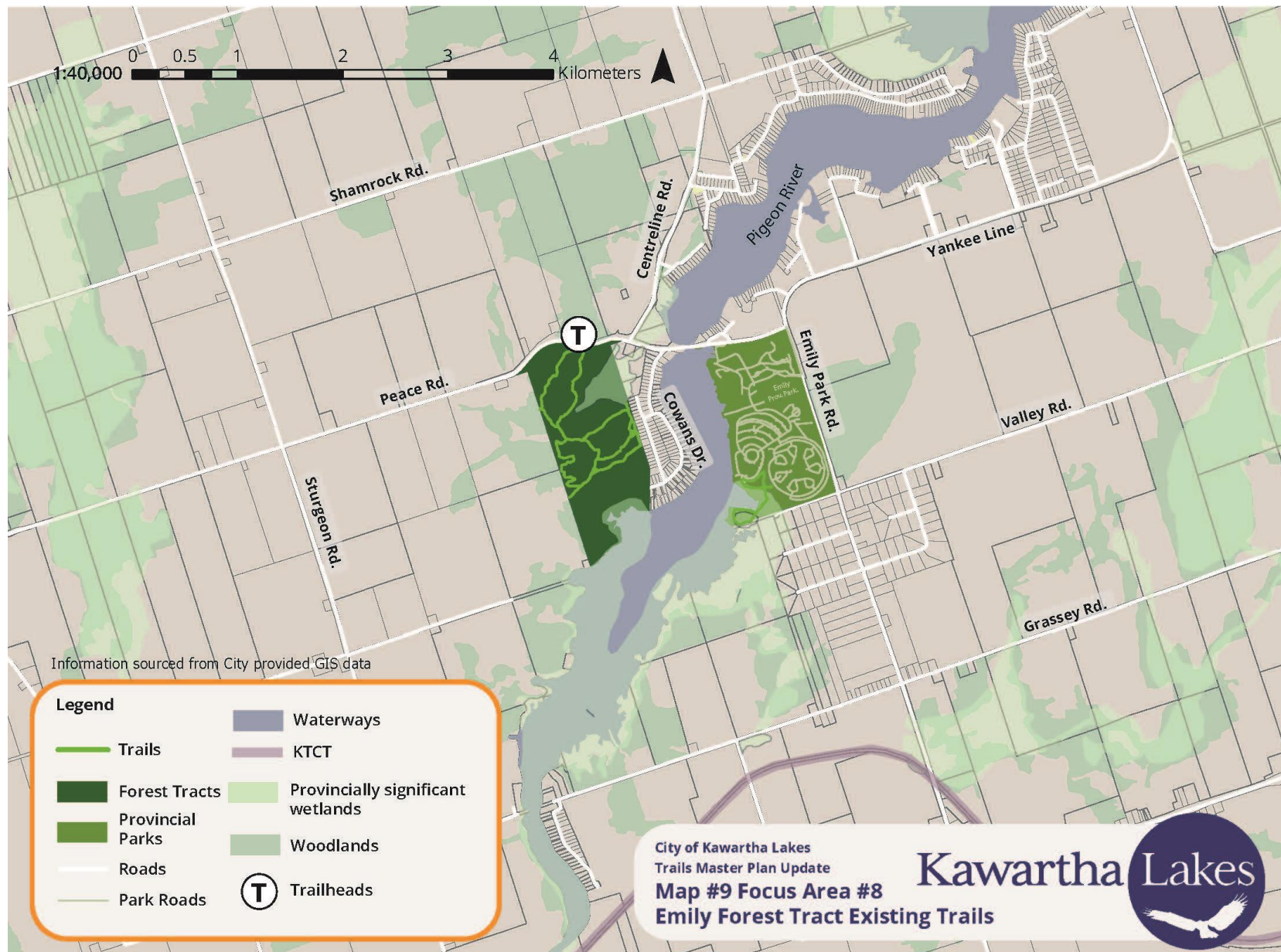


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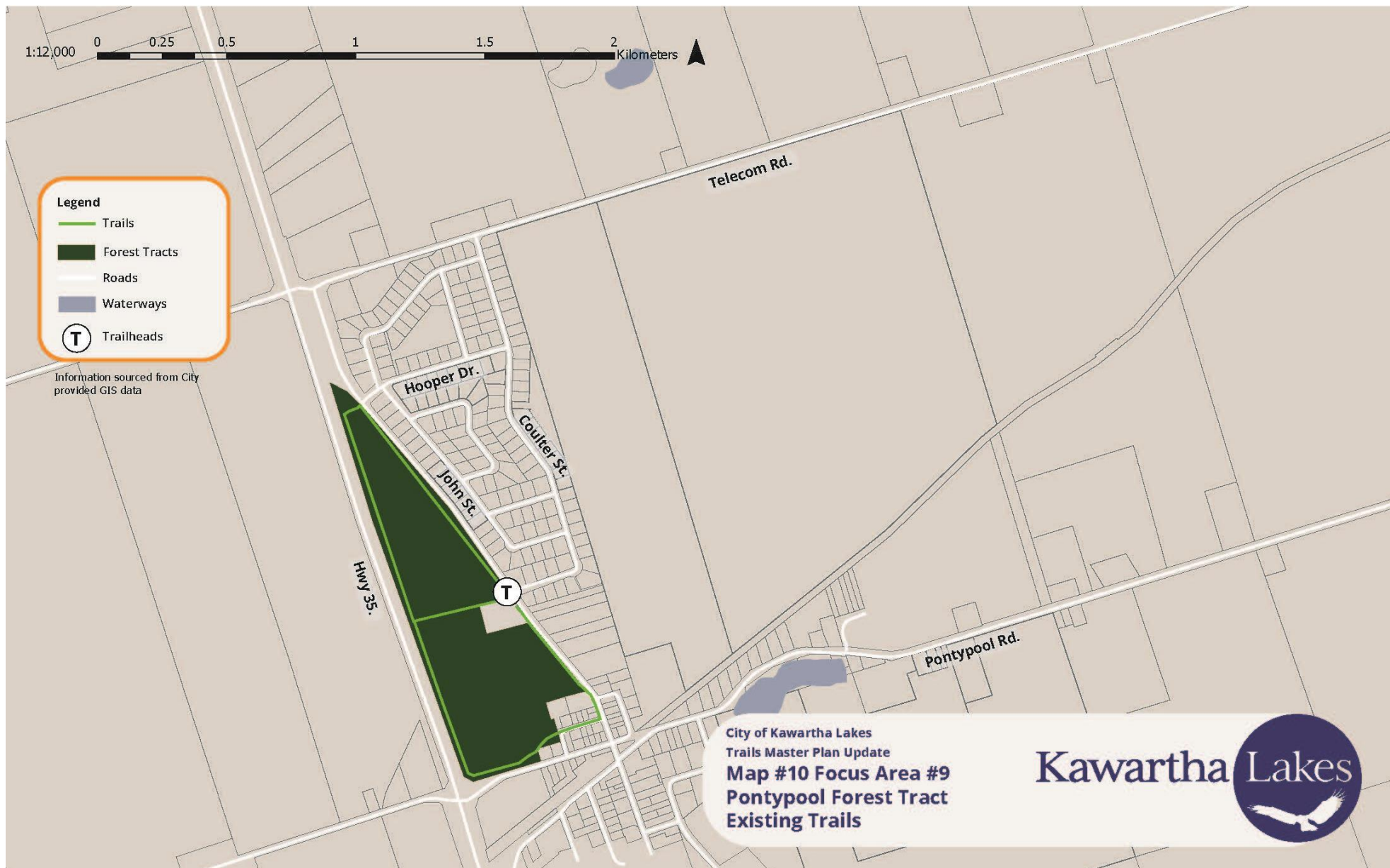




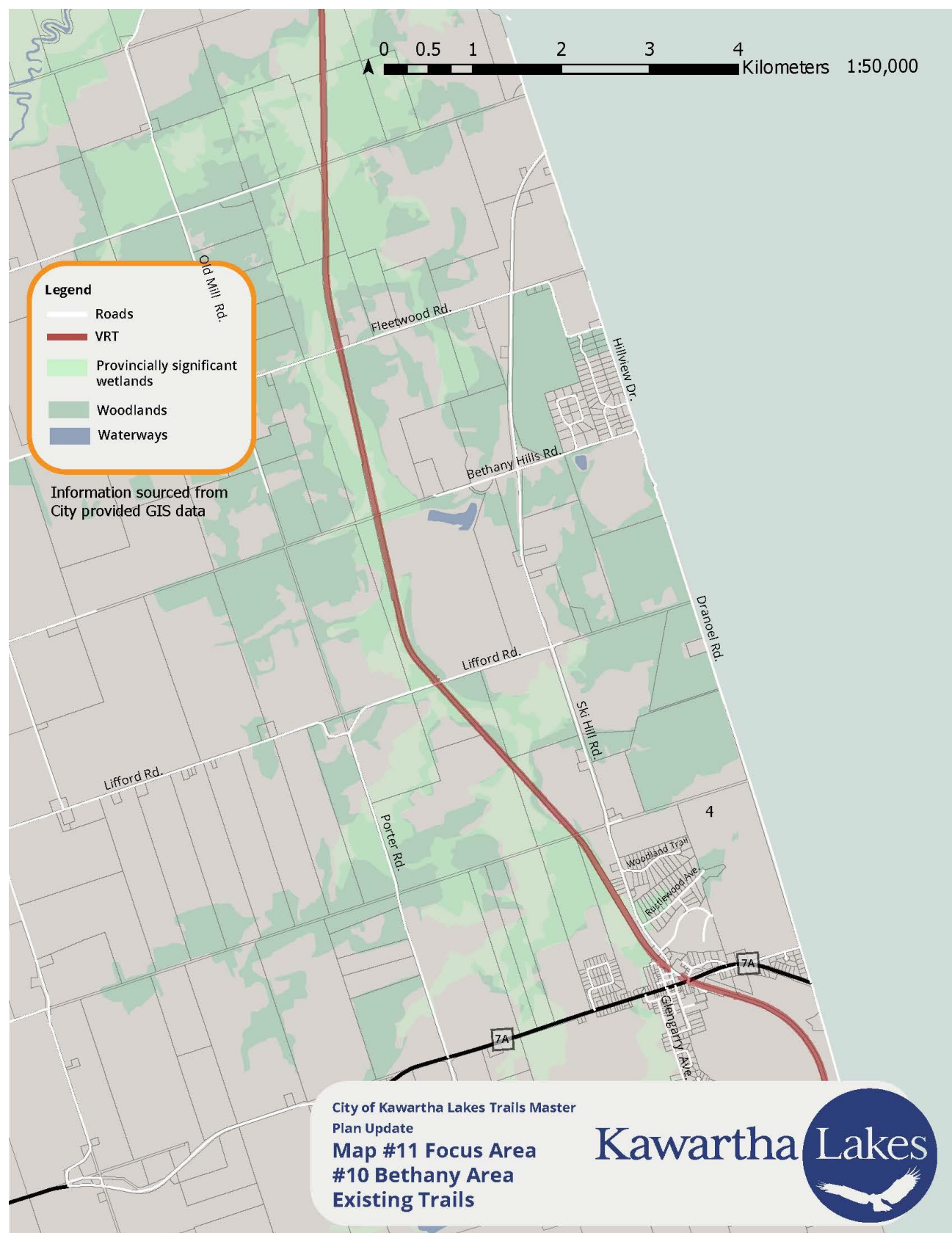


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## Master Plan Report . Final









1.4.3 Challenges and Opportunities

Challenges and opportunities are critical assessments in the early stages of a master plan to identify what key considerations need to be addressed and what successes or unique aspects need to be leveraged.

Learning from the community – including residents and stakeholders – is one of the most effective ways to get a better understanding of the unique challenges and opportunities faced by the community. The information for Kawartha Lakes was gathered through the first round of engagement including online engagement tools and input from the public, working sessions with stakeholders, one on one meetings with staff and interest groups and voluntary input from residents.

Table 8 provides a summary of the key take-aways from this assessment. Both the challenges and opportunities provided a strong foundation for what needed to be developed/recommended as part of the TMPU.

Trail Challenges	Trail Opportunities
<ul style="list-style-type: none"><li>Isolated trail experiences or areas that are hard to reach.</li><li>Effective communication of trail opportunities, access, and routing.</li><li>Lack of consistent funding and support for trail development.</li><li>A lack of consistent trail design and application leading to inconsistent understanding of use.</li><li>Significant conflict between trail users in specific locations.</li><li>Lack of clarity regarding winter trail opportunities and maintenance practices.</li><li>Challenge with capacity and level of clarity around enforcement practices and roles.</li></ul>	<ul style="list-style-type: none"><li>Create unique trails and safe, memorable, and enjoyable trail experiences for a variety of different users.</li><li>Improving opportunities for shared use through design.</li><li>Create supportive signage and wayfinding.</li><li>Improved accessibility and amenities</li><li>Emphasize trails as destinations.</li><li>Recognize opportunities for active connectivity through the Active Transportation Master Plan.</li><li>Effective approaches to monitoring and enforcement.</li><li>Priorities and certainty around maintenance standards and practices.</li><li>Updated investment and funding strategy.</li></ul>

Table 8. Summary of Trail Challenges & Opportunities based on Input

## 1.5 Vision and Principles

The intent is for the Trails Master Plan Update to have a similar horizon as the original plan – approximately 15-20 years. The update should clearly articulate what that future ‘looks like’ in the form of an aspirational vision statement and the details of how that could be achieved through supporting principles.

The original 2006 Trails Master Plan vision and objectives were reviewed in the context of the current conditions and input on future aspirations. While the basis of the statement remained relevant, the concern was around the interpretation and use of the objectives and whether there was enough direction as well as flexibility around their application.

Objectives typically are the basis for the development of recommendations. As such, it was decided that as opposed to objectives, the focus would be placed on ‘principles’ as more detailed aspirations that are further defined by objectives which will be achieved through the implementation of trail master plan recommendations. They are described in further detail below.

# 2023 Trail Vision...

***“ Trails in Kawartha Lakes will be fun, accessible, safe, and comfortable for users (where appropriate) and will be a key contributor to community health, connectivity, liveability, and sustainability.”***

Principle	Principle	Principle
Design for User Comfort & Safety	Provide Barrier Free Access where Appropriate	Connect Community Destinations
Improve user experience and safety with updated trails classifications, designs, signage, and management.	Improve accessibility and reduce trail barriers through upgrades and maintenance.	Focus on key area, destinations, and link to on-road facilities.

Principle	Principle	Principle
Identify Feasible Solutions	Support Sustainable Implementation	Establish Clear Communication
Prioritize recommendations that are environmentally, socially, and economically responsible, and optimize municipal resources.	Address funding, maintenance and monitoring as well as achievable phase-based targets.	Manage user experience via trails classifications, signage, wayfinding and encouragement strategies.
Principle	Principle	
Foster Stewardship	Establish Consistent Monitoring & Management	
Involve people and groups via stewardship partnerships, education, and encouragement strategies.	Establish clear targets, practices, and monitoring methods as well as support for day-to-day trail management.	

## 1.6 An Evergreen Plan

The intent of this plan is to provide guidance for trails in Kawartha Lakes not just for the context of today, but also for well into the future. We recognize that conditions change, and Kawartha Lakes will be met with new considerations, constraints, and opportunities over the 20-year horizon of this plan that we can't be certain of at this time.

For this plan to stand the test of time and be “evergreen,” it needs to address some critical components to facilitate and support day-to-day decision making and operations as well as ongoing promotion and implementation. For the purposes of the City of Kawartha Lakes TMPU, 6 types of recommendations have been identified. They are outlined in [Table 9](#).

Recommendation Type #1	Recommendation Type #2	Recommendation Type #3
Trail Infrastructure	Trail Design	Trail Education & Outreach
<ul style="list-style-type: none"> <li>Recommendations to ensure that there is sufficient policy support and adoption of proposed trail projects.</li> </ul>	<ul style="list-style-type: none"> <li>Recommendations to ensure that there is consistent application of trail design.</li> </ul>	<ul style="list-style-type: none"> <li>Recommendations to ensure that there is enhanced awareness and interest associated with the City's trails.</li> </ul>
Recommendation Type #4	Recommendation Type #5	Recommendation Type #6
Trail Costing & Funding	Implementation & Management	Maintenance, Evaluation & Enforcement
<ul style="list-style-type: none"> <li>Recommendations to ensure that there are sufficient and ongoing funds associated with the implementation of the Trails Master Plan Update.</li> </ul>	<ul style="list-style-type: none"> <li>Recommendations to ensure that there is annual consideration for trail implementation and coordination and consistency in partnership and process.</li> </ul>	<ul style="list-style-type: none"> <li>Recommendations to ensure that there is year-round maintenance of trails and ongoing evaluation of successes and improvements.</li> </ul>

**Table 9. Overview of TMPU Recommendation Categories**

Chapters 2.0 and 3.0 of the TMPU provide an overview of the trail recommendations with supporting research, rationale, and considerations for the City.

As an evergreen plan, we have included recommendations throughout the remaining chapters of the TMPU. The intent is to provide the City with recommendations that are adaptable and responsive to changing conditions. This means that when new trail opportunities do arise, Kawartha Lakes can explore these opportunities with the tools set out in this plan and support a coordinated effort between what we know we can do now, and what we may be able to accommodate in the future.



Look for this symbol in the following chapters to see how we have evergreened our recommendations and supported a flexible and responsive master plan.

An “evergreen” approach also means that to some degree the feasibility of the recommendations have been reviewed and confirmed based on City staff and/or decision maker input and assessment of current capacity and community support. When reviewing the TMPU, preliminary implementation timing has been identified for each of the recommendations presented.

The “timing” of recommendations has less to do with a specific year or horizon (short, medium, or long-term) and more to do with whether it is possible to implement the recommendation once the plan has been adopted or if it is dependent on other external impact. **Table 10** provides an overview of the timing considerations.

Immediate	Dependent on Alternate Timing	Requires Investigation
<ul style="list-style-type: none"><li>Recommendations that can be implemented once the plan has been adopted</li></ul>	<ul style="list-style-type: none"><li>Recommendations which can be implemented once other initiatives or work has been completed</li></ul>	<ul style="list-style-type: none"><li>Recommendations which require additional research / review to be undertaken to confirm next steps</li></ul>

**Table 10. Recommendation Implementation Considerations**

All recommendations are not made equal. When the recommendations are presented, there will be the identification of “core recommendations for Council consideration”. These recommendations include:

- Recommendations that facilitate ongoing coordination and implementation of the TMPU.
- Necessary policy support that ensures that the TMPU is embedded into policy planning and decision making.
- Funding tools and dedicated funding sources that will facilitate the implementation of proposed projects, strategies, and tactics.
- Internal capacity building to ensure that the TMPU is monitored and managed effectively.
- Partnerships that will support City staff in various aspects of the plan due to responsibility requirements to capacity limitations.



Look for this symbol when TMPU recommendations are presented to identify which of the recommendations is considered a priority for the City.







## 2.0 Trail Building and Promoting

The identification of proposed trail improvements underwent considerable discussion and evolution over the course of the development of the Trails Master Plan Update. In the 2006 trails plan, a series of proposed trail projects were identified, with high-level descriptions of proposed improvements. For the updated plan, it became clear that a more rigorous and focused approach was needed to ensure a successful and implementable plan.

Unlike a transportation or active transportation master plan, trail plans rarely identify a fully connected and continuous network of improvement. This tends to be due to the limited land use opportunities where fully off-road trails can feasibly be implemented. For the City of Kawartha Lakes this meant that, as opposed to identifying a full trail network, an area specific approach was used to identify trail improvement locations and improvement types.

### Why an area specific approach for Kawartha Lakes?



#### Geographic Scale

Trail linkages can be costly and take time to implement. Due to the large geographic scale of Kawartha Lakes it is a challenge to achieve wide-spread implementation of a fully continuous and connected system of trails.



#### Differing Needs of Users

The nature of different trail uses means that the locations where they can be implemented varies. To provide opportunities for all potential trail users the feasible locations needed to be prioritized.



#### Extensive Trails in Specific Areas

There are already existing areas with a high density of trails meaning that improvements are needed at those locations as opposed to finding new trail links to get there.



#### Trails as Destinations

The natural areas of significance and prominent trail connections such as the TCT and VRT mean that trails are considered a destination unto themselves and are at times the point of origin and end of a trip.



### On-road Connectivity Opportunities

Because of the nature of the TMPU and the fact that the City is also undertaking an active transportation master plan, overall network connectivity will be achieved through on-road connections identified in the ATMP.

## The result was the identification of...

**11** trail improvement focus areas throughout the City.

**4** types of trail projects which represent different types of trail improvements.

Details of the proposed focus areas and proposed trail projects are found in Section 2.1.

To facilitate the implementation of the proposed trail projects and improvements a consistent approach to trail design was needed. While there were some previously adopted trail standards – primarily in the form of on-road facilities and precedents from past projects – historically no trail specific standards or guidelines have been in place. Section 2.2 provides a series of trail design tools to support the City in the design and construction of the proposed trail projects and if other trail initiatives/projects emerge following the adoption of the TMPU.


Existing and future trail infrastructure and improved designs to make the trail network more welcoming, comfortable, accessible, and safer lays the foundation for trail usage for residents and visitors in Kawartha Lakes. But to effectively leverage the new infrastructure investments that are being made, the City should also make strategic investments in education and outreach initiatives that help promote trails as a destination, leverage all-season use, address user conflicts through education on safe and responsible trail use, and ensure information regarding trail usage is accurate and accessible.

Section 2.3 provides a recommended education and encouragement strategy in support of improved and increased trail awareness for people who live, work, and play within the City of Kawartha Lakes.

## 2.1 Infrastructure

### Infrastructure refers to...

The planning and identification of a series of proposed trail areas and associated projects which have an impact on the capital planning and special projects for the City of Kawartha Lakes.

	Recommendation	Timeline
	<b>Recommendation #1</b> The proposed trail projects as identified in the 2023 Trails Master Plan Update will be used as the blueprint for future trail planning, design, and implementation.	
	<b>Recommendation #2</b> The trail projects as identified in the 2023 Trails Master Plan Update are to be adopted as a schedule as part of the City's Official Plan along with the necessary policy supports to ensure that the trail master plan recommendations are further supported at a higher policy level.	
	<b>Recommendation #3</b> The trail project categorization should be adopted as the preferred approach that is used to identify, recommend, or plan for trail projects undertaken throughout the City as project and initiative implementation proceeds.	
	<b>Recommendation #4</b> The trail projects will be reviewed on an annual basis to determine if there are any outstanding opportunities that require further consideration including opportunities noted through the trail plan update consultation process or otherwise.	

## 2.1.1 Focus Area Overview

A focus area approach allows the City of Kawartha Lakes to strategically improve trails City-wide, weaving together existing trails which require improvement, tackling areas of conflict and challenge related to trail users and/or management and coordinate with previously planned projects or anticipated growth.

As noted in Section 1.4.1 and illustrated on [Map 1](#) through [11](#), the identification of proposed focus areas was informed by a series of initial steps to understand and assess existing and previously planned conditions, trail hot spots and potential new trail improvements. This was heavily informed by input from the City and key stakeholders.

### The outcome of this step was the identification of...

**24** candidate trail focus areas.

A comprehensive overview of the candidate focus areas was provided to the City. Each candidate focus area was assessed based on their alignment to city priorities, project scope, and project priorities. Those which fully aligned to at least two of the three criteria then moved forward as a proposed focus area. The evaluation was further supplemented by discussions with City staff and stakeholders. The refinements led to the 11 proposed focus areas which are presented in [Table 11](#) and illustrated on [Map 12](#) through [22](#).

FA #	Name	Description
1	Somerville Forest Tract	Somerville Forest Tract is in the North area of Kawartha Lakes and is a popular destination for motorized and non-motorized trail users.
2	East Cameron Lake	The VRT along East Cameron Lake from Garnet Graham Park to Superior Road Trailhead is a popular destination just north of Fenelon Falls in the North area of Kawartha Lakes. Popular for both motorized and non-motorized users, this focus area was highlighted due to the significant public interest and appeal from motorized and non-motorized users to address user conflict and management.
3	Superior Road Trailhead	Superior Road Trailhead is a staging area located in the North area of Kawartha Lakes, popular for motorized trail users.

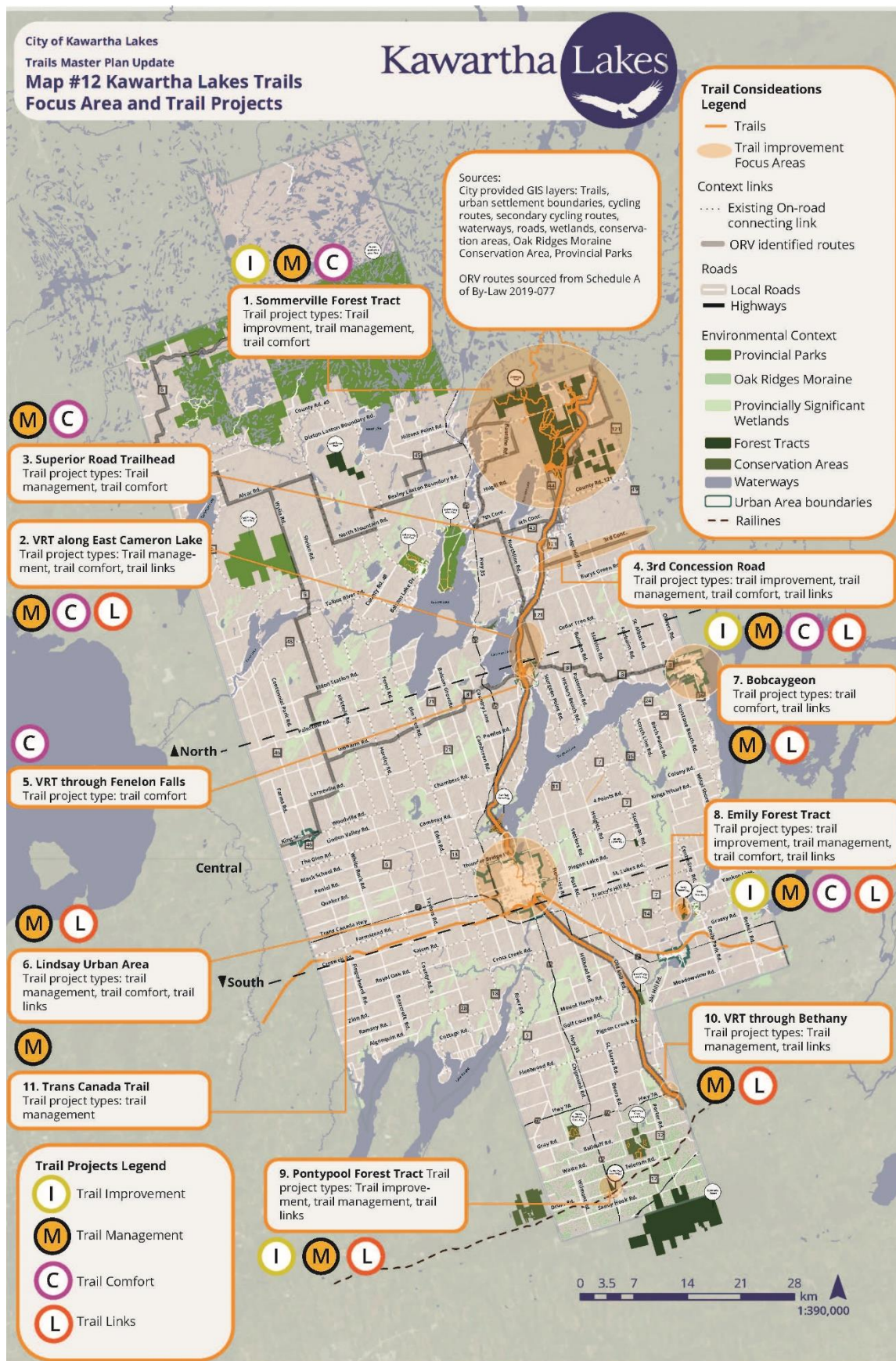
FA #	Name	Description
4	3rd Concession of Somerville	3rd Concession of Somerville is an existing on and off-road connection to the Five Points Trail System, a popular destination for motorized trail users.
5	Fenelon Falls Urban Area	Fenelon Falls is a popular tourist destination and growing urban area located within the North area of Kawartha Lakes.
6	Lindsay Urban Area	Lindsay is a key urban area, destination, and residential community located within the Central area of Kawartha Lakes.
7	Bobcaygeon Urban Area	Bobcaygeon is another key urban area, destination, and residential community located in the Central area of Kawartha Lakes.
8	Emily Forest Tract	Emily Forest Tract is a popular trail destination located in the South area of Kawartha Lakes. It has an expansive (approx. 5km) network of existing trails.
9	Pontypool Forest Tract	Pontypool Forest Tract is located within the South area of Kawartha Lakes and is a trail destination for both active and motorized trail users though currently not permitted within areas designated as Forest Tracts.
10	Bethany Area	Bethany is a residential community in the South area of Kawartha Lakes.
11	Kawartha TCT	The Kawartha Trans Canada Trail (KTCT) is a significant spine trail running east-west throughout the Central and South areas of Kawartha Lakes.

Table 11. Summary of Proposed Trail Focus Areas



# Kawartha Lakes Trails Master Plan Update

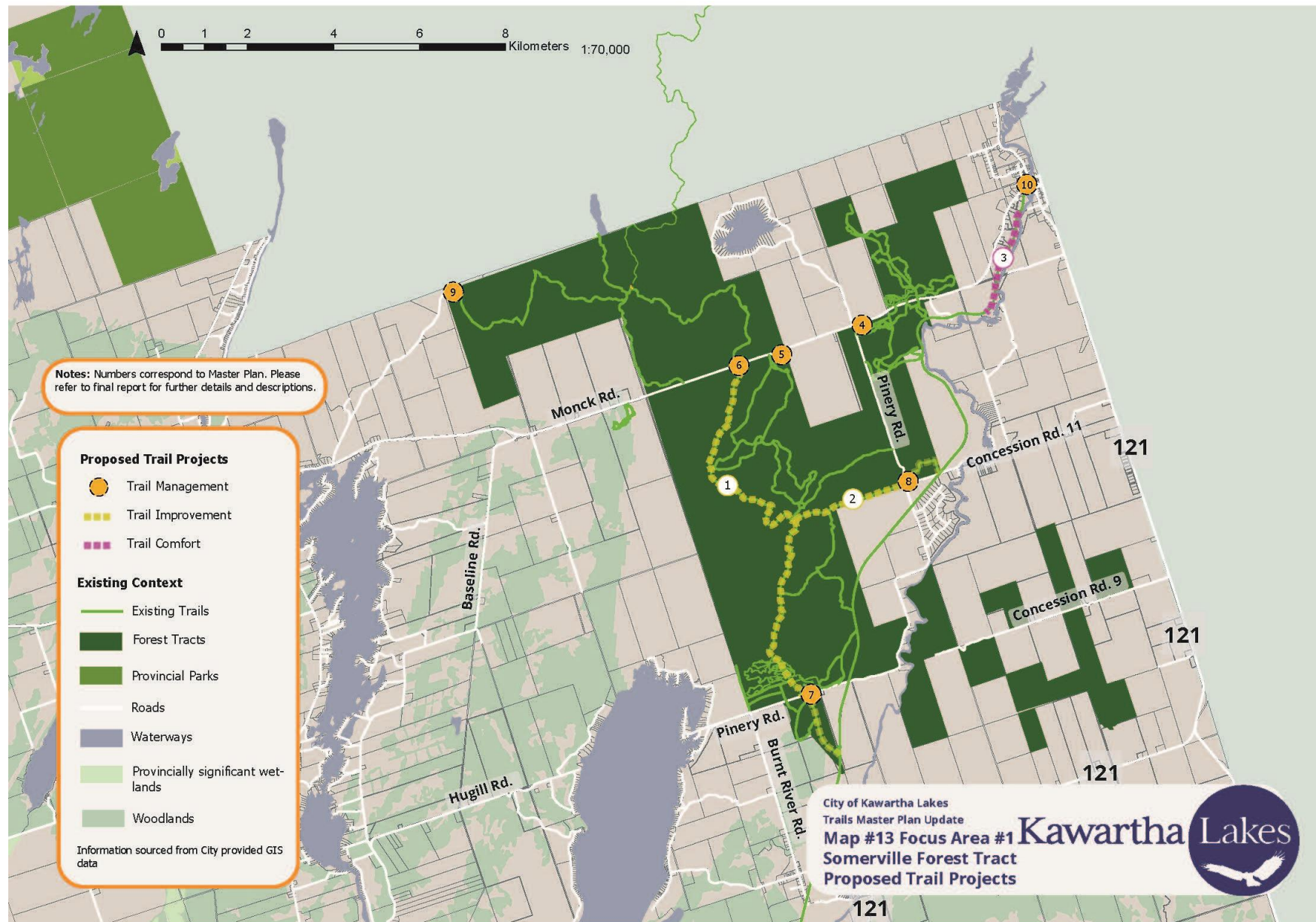
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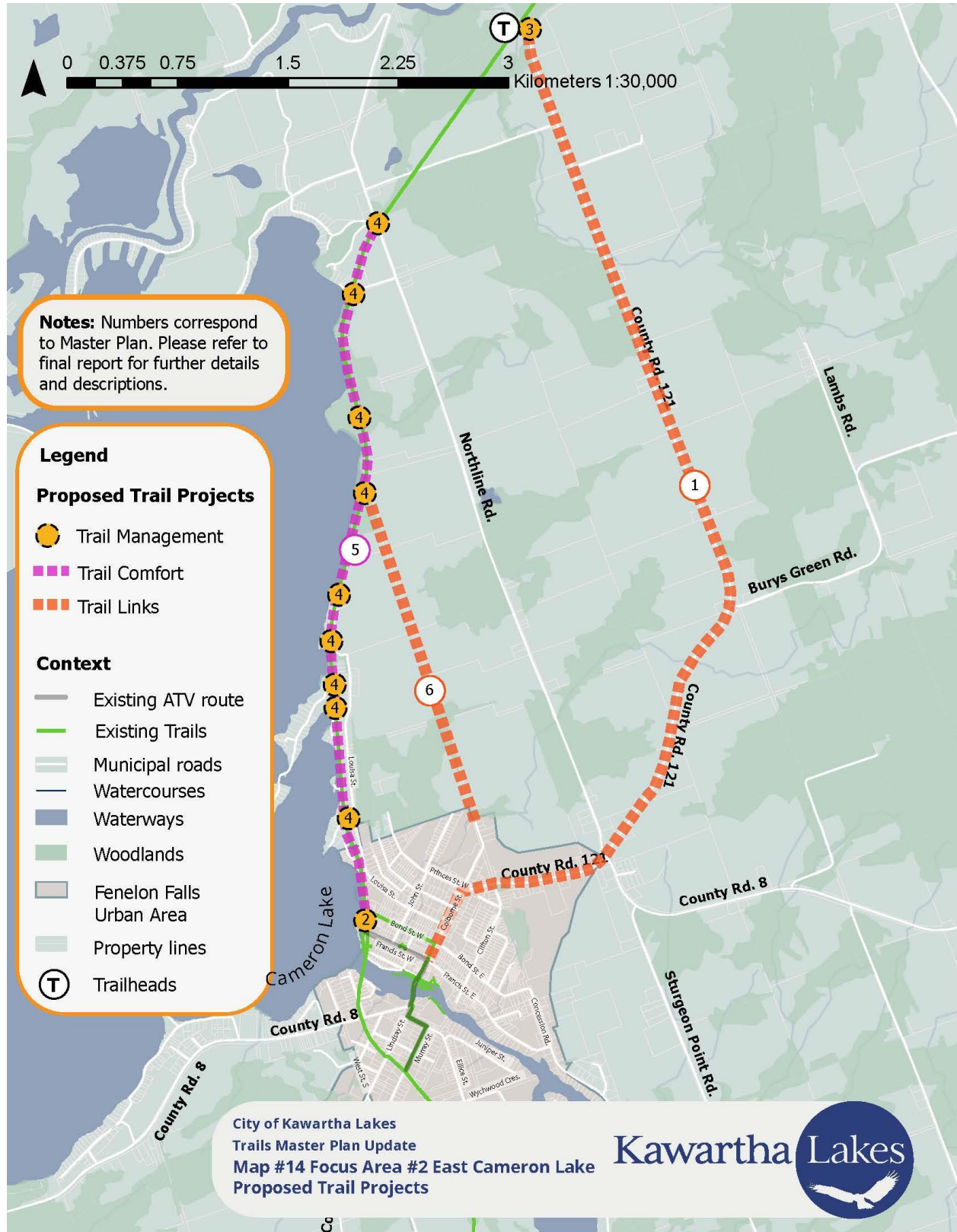




# Kawartha Lakes Trails Master Plan Update

## Master Plan Report . Final

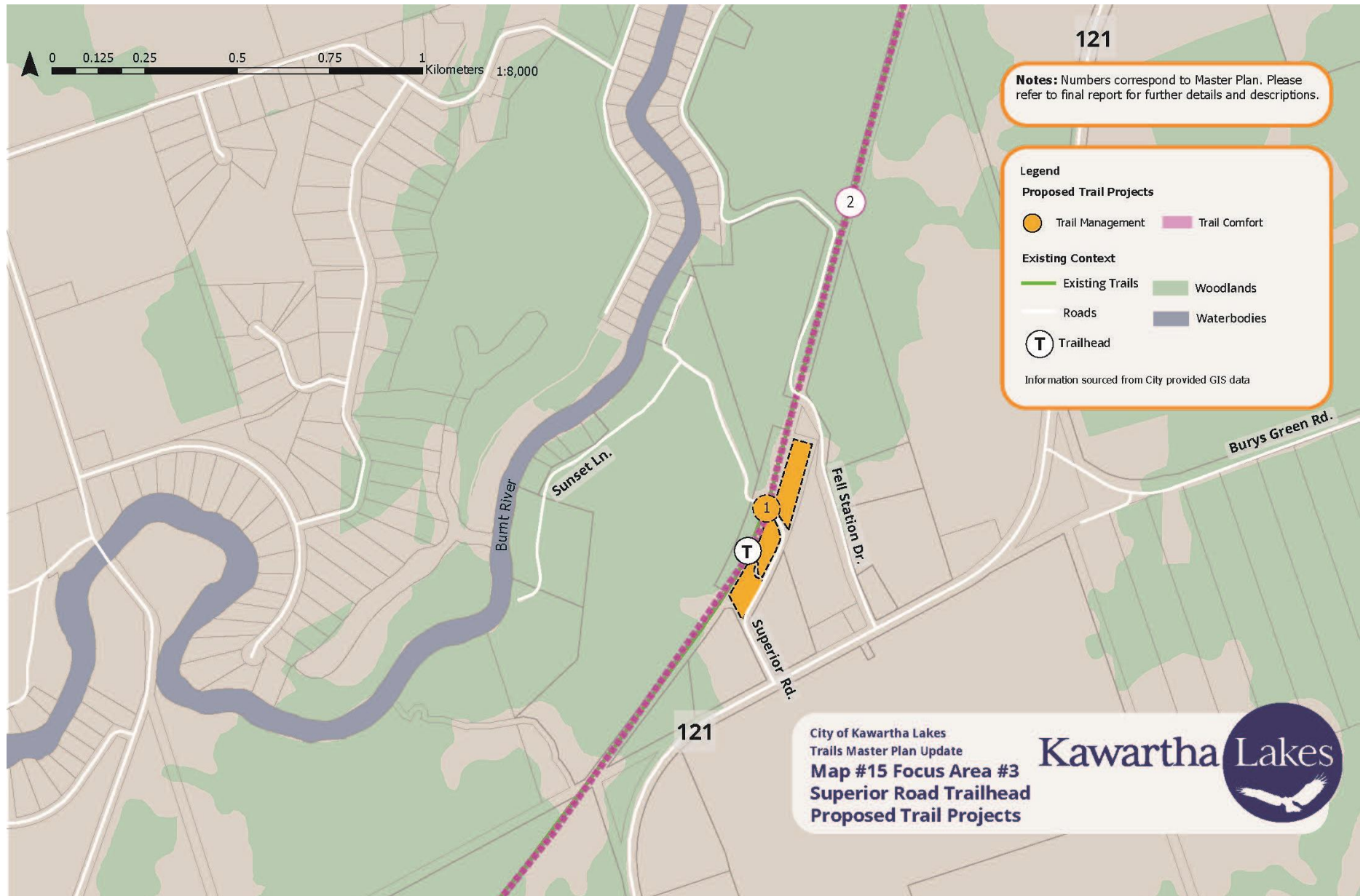






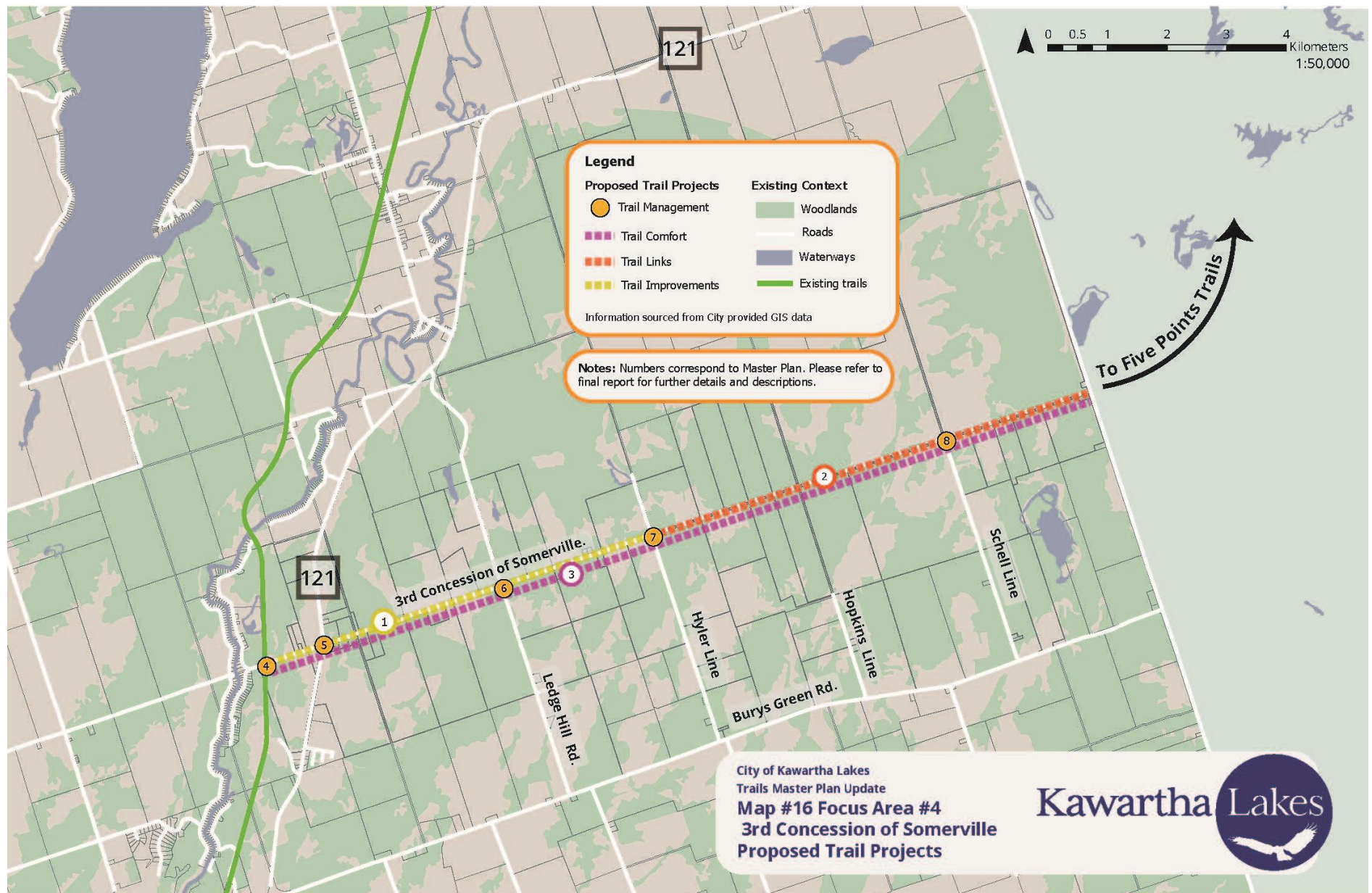
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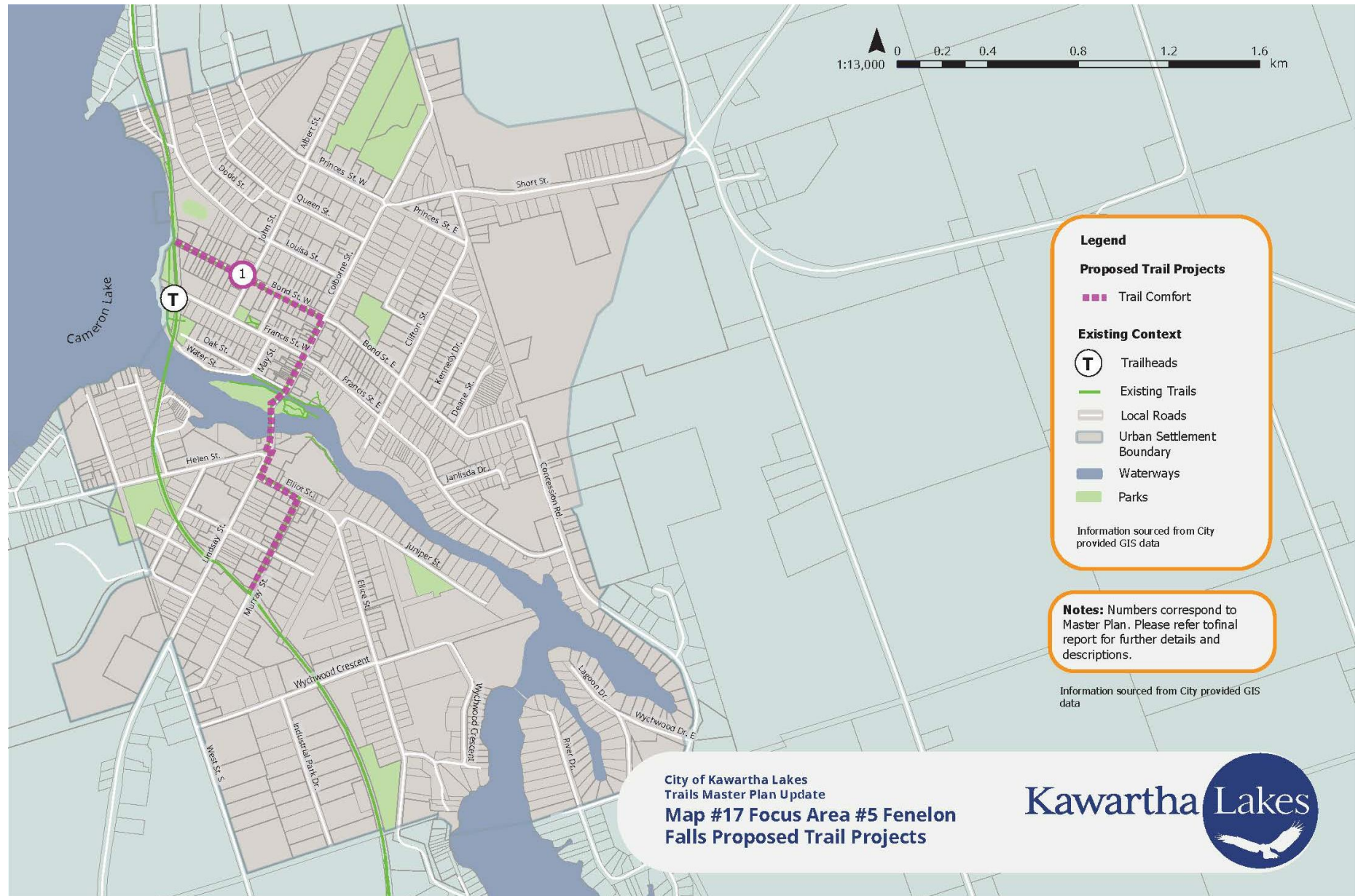
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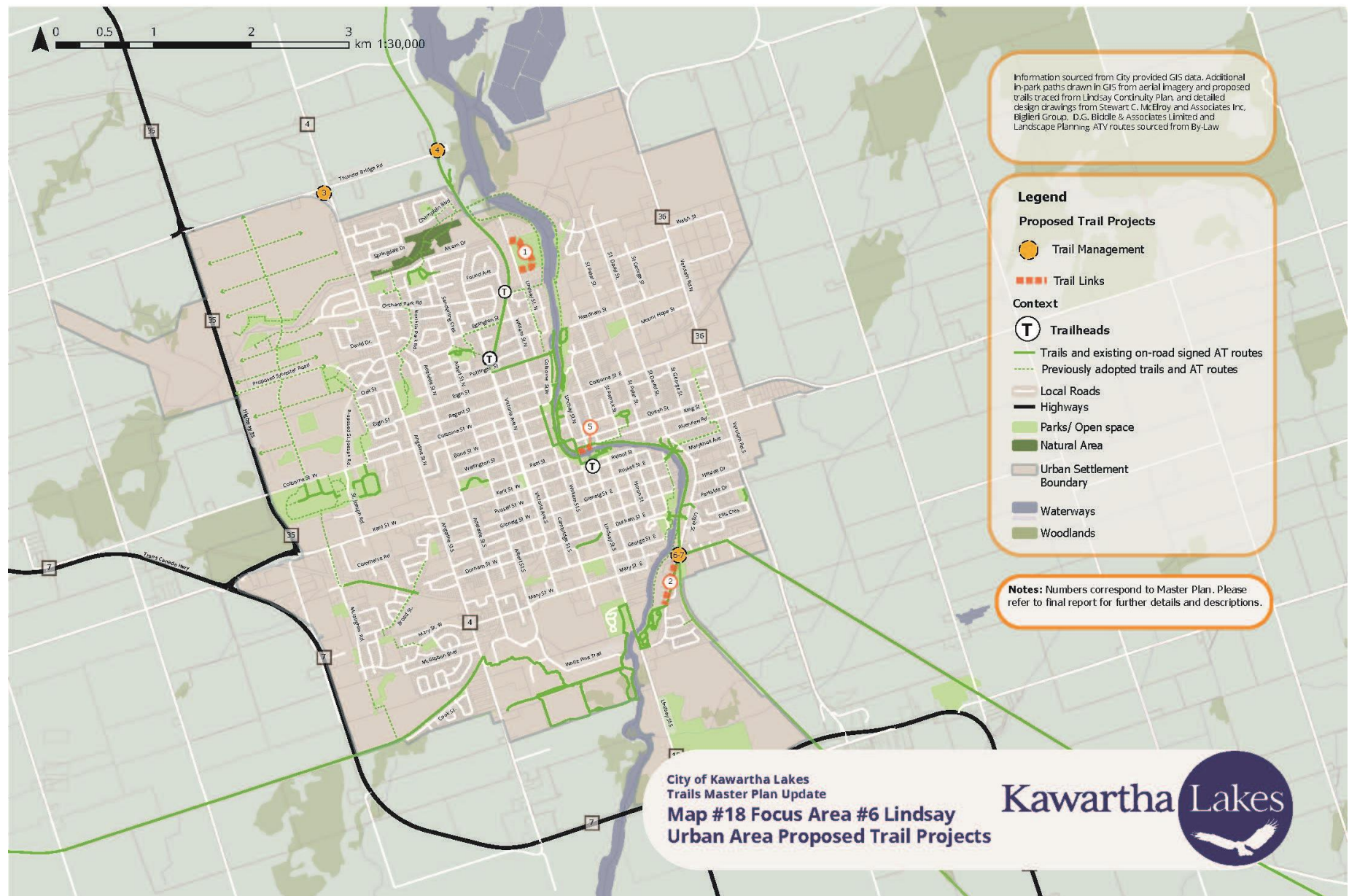
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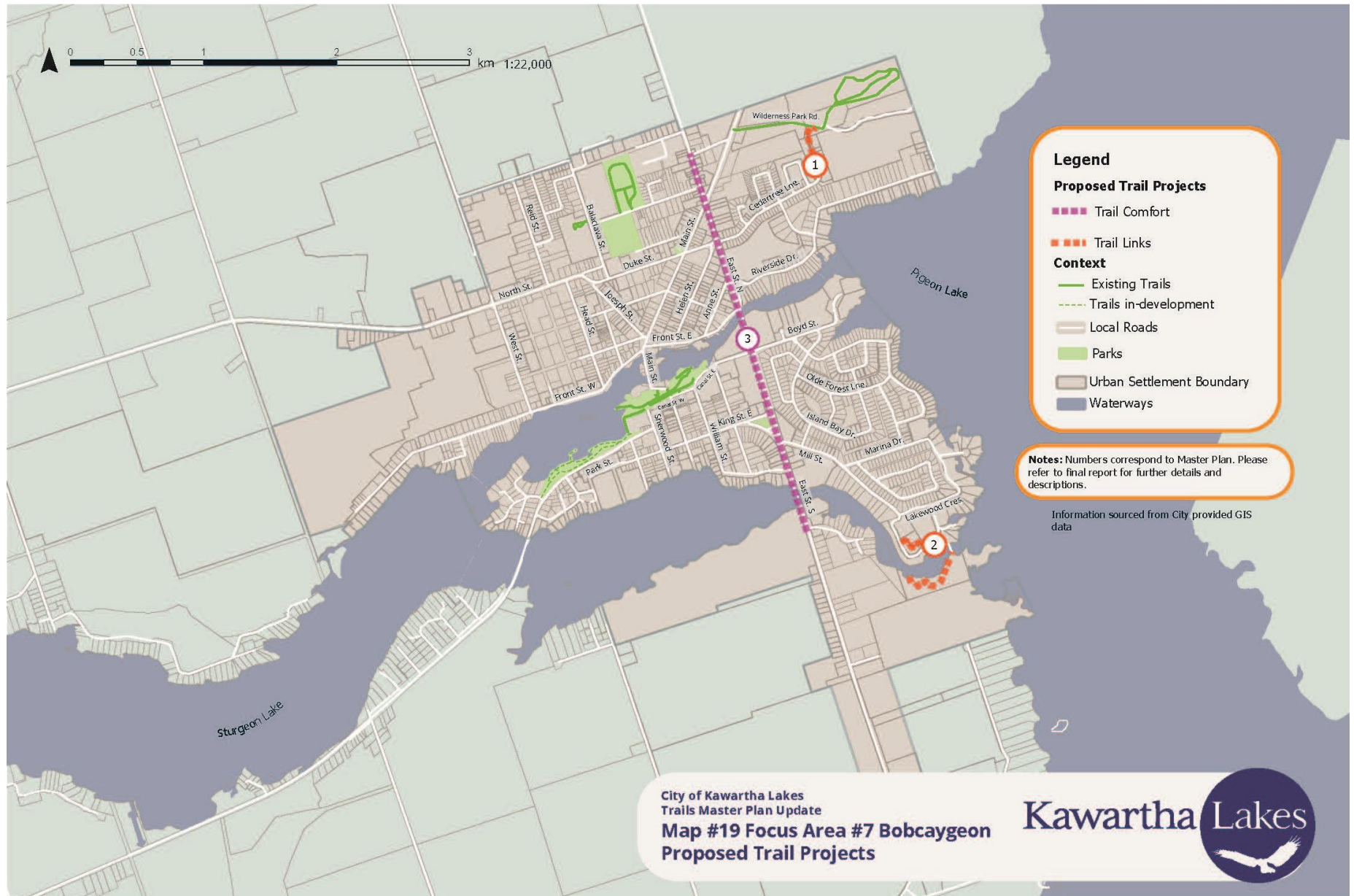
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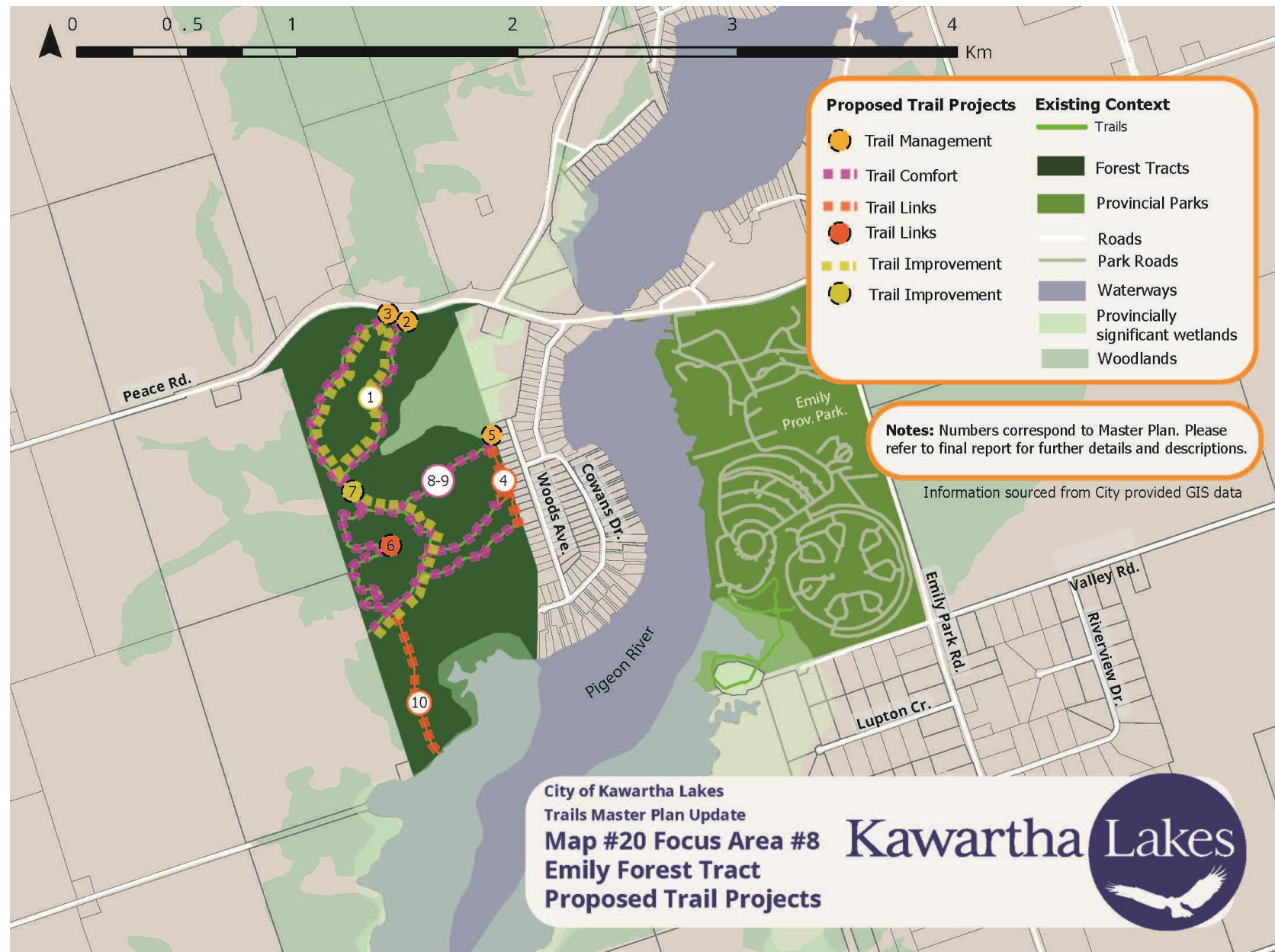


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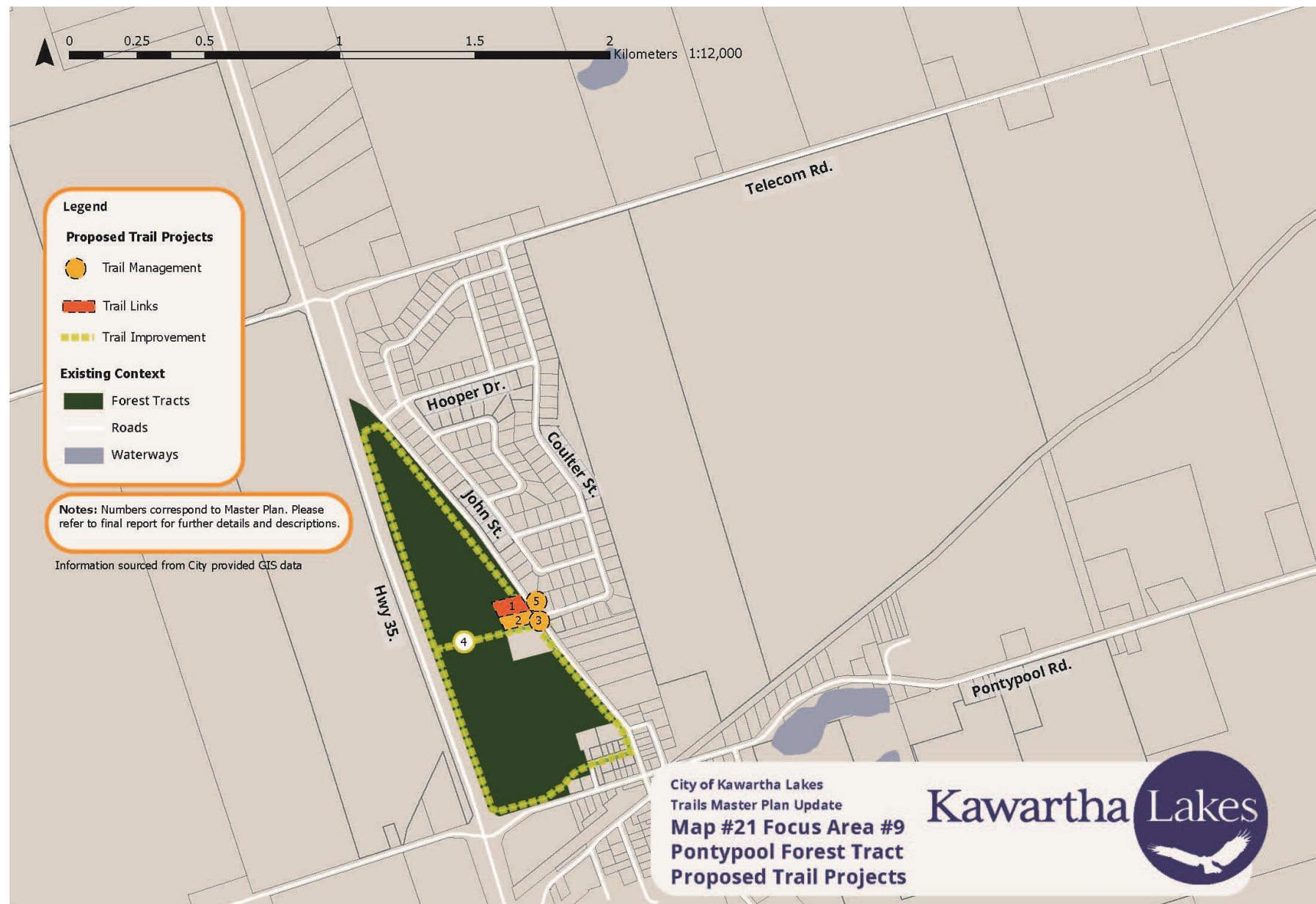


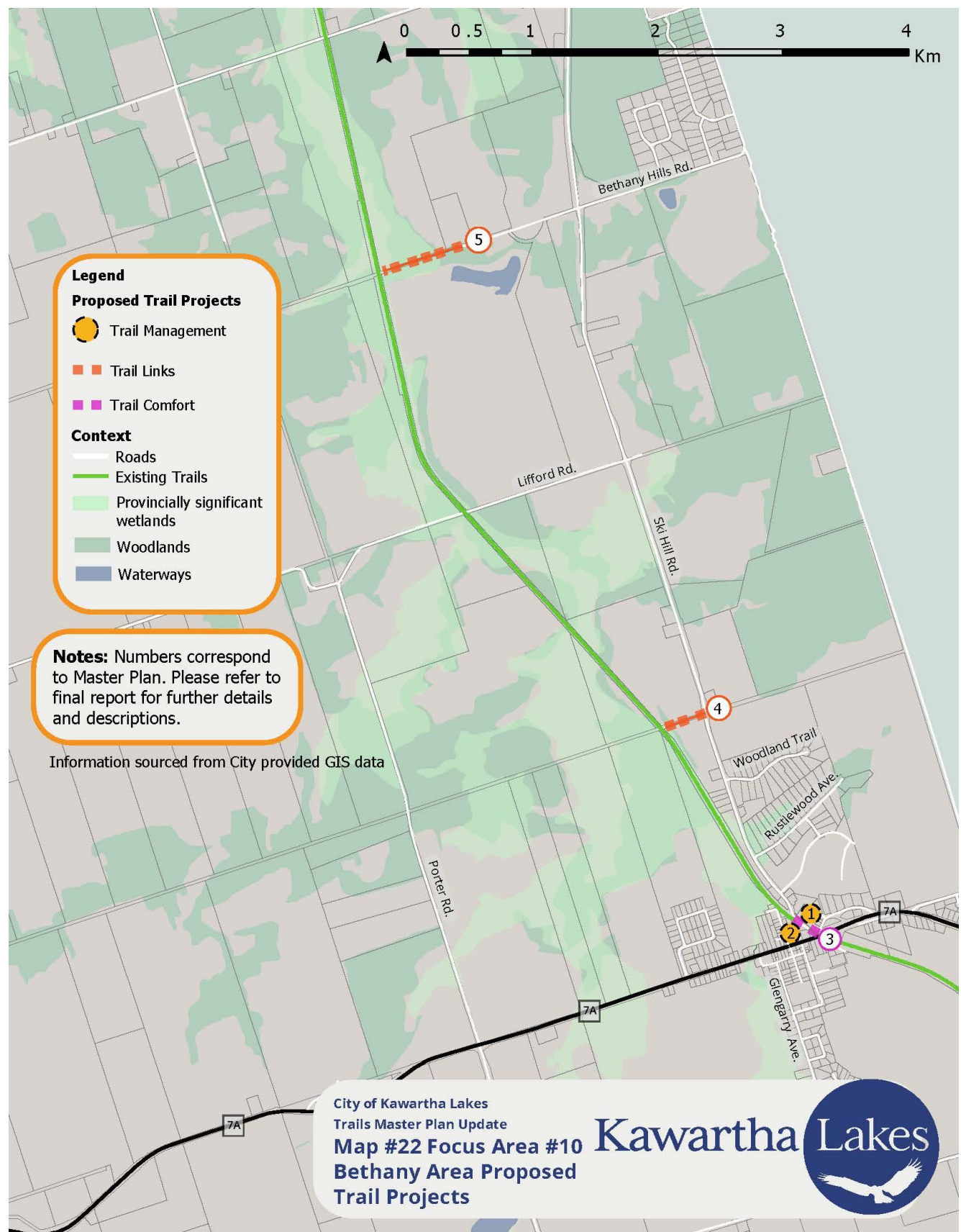




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## Master Plan Report . Final





## 2.1.2 Trail Project Types

Within each focus area, the intent was to identify trail specific improvements to enhance experience and achieve TMPU objectives. When reviewing the proposed trail projects identified across the 11 focus areas, 4 themes emerged. These themes represent categories of trail projects that are implemented with a distinct purpose of outcome in mind. They are the categories that are intended to be adopted as per **Infrastructure Recommendation #3**.

Additional details on what each proposed trail project type includes in terms of proposed design solutions is presented below. More detailed directions on design guidance and standards are provided in Section 2.2.

### Trail Improvement

Trail improvements pertain to existing or previously planned trails where the existing or proposed facility is no longer considered to be appropriate for the current uses, conditions, or anticipated demand, and where design enhancements could improve the conditions. Categories for trail improvements include:



- Upgrades to recreational connecting link or fully shared corridor, including upgrading existing granular surface trails to meet 3.0 m wide compacted granular trail standard.
- Upgrades to Fully Accessible Trail from Recreational Connecting Link, including upgrading existing granular surface to hard surface.
- Upgrades to ORV on-road links, such as through granular shoulder sealing or other surface condition upgrades.
- Additional feature upgrades, such as the addition of removeable bollards or fencing.

### Trail Management

Trail management upgrades are to be applied to existing trails at access points to improve the overall way in which the existing trail functions. These types of improvements are primarily needed for forest tract areas where there are existing trails with a range of uses and users throughout the year.



Where these improvements are identified, it is likely that enhanced staging areas and trailheads will also be recommended. Policy and process recommendations are also included within the TMPU to ensure coordination and consistency. Categories for trail management solutions include:

- Trailheads and staging areas, including granular parking lots, regulatory and caution signage, interpretive signage, pathway marker and directional signage, and staging area kiosks.
- Crossings, including mid-block crossings, intersection pedestrian and bicycle signalization, pavement markings to denote pedestrian crosswalks and cyclist cross rides, median refuges, lockable gates, and metal offset gates.

## Trail Comfort

Trail comfort upgrades apply to both existing and proposed trail linkages where it is expected that there will be a considerable number of different users, including both active (i.e., pedestrians and cyclists) and motorized (i.e. ATV) users.



These solutions will require significant support from enforcement and management policies and processes, and likely require ongoing discussions with various stakeholders to address any risk and liability concerns. Improvements of this type will help ensure safe and comfortable use by all, through signage, wayfinding, and other amenity applications to help control the use of the trail by various users.

- Amenities include benches, pathway lighting, and waste/recycling bins.
- Signage may include pathway marker signs or trail route signage.

## Trail Links

Trail links are new trails that align with areas of known existing use or connectivity between existing trails, that can help enhance the overall trail network experience. These include new links on city-owned land in urbanized areas.



Trail links are classified into three main categories, as listed below. They also include some additional new builds in some locations, such as pedestrian boardwalks (light-duty), metal stairs (with hand railings and bicycle gutters), and a bike pump track.

More details regarding these classifications are described in Section 2.2.



## 2.1.3 Trail Project Details

A comprehensive and detailed database of proposed projects by focus area is provided to the City as a implementation management tool / resource. [Map 12 through 22](#) illustrate the proposed projects by focus area. [Table 12](#) provides a summary of the proposed projects by focus area followed by a breakdown of project details by focus area. The information contained within this section and the supportive mapping is the basis for [Infrastructure Recommendation #1](#) and [Infrastructure Recommendation #2](#).








Focus Area					Total
#1. Somerville Forest Tract	2	7	1		10
#2. East Cameron Lake	1	3	1	2	7
#3. Superior Road Trailhead		1	1		2
#4. 3 <sup>rd</sup> Concession of Somerville	1	5	1	1	8
#5. Fenelon Falls Urban Area			1		1
#6. Lindsay Urban Area		4		3	7
#7. Bobcaygeon Urban Area		1		2	3
#8. Emily Forest Tract	2	3	2	3	10
#9. Pontypool Forest Tract	1	3		1	5
#10. Bethany Area		2	1	2	5
#11. Kawartha TCT		1			1
<b>Total</b>	<b>7</b>	<b>30</b>	<b>8</b>	<b>14</b>	<b>59</b>

Table 12. Summary of Proposed Projects by Focus Area

 Trail Improvement
  Trail Management
  Trail Comfort
  Trail Link

## Focus Area #1 Somerville Forest Tract















Project #	Project Description	Length / #
1 	Upgrade conditions of Maconachie trail to support increased active and motorized use. Includes upgrading surface condition (to granular surface), trail widening, and drainage improvements.	8.5 km
2 	Upgrade conditions of Marsh trail to support increased active and motorized use. Upgrades should include improvements to surface conditions and drainage.	3 km
3 	Amenity improvements to VRT, including new benches and waste receptacles placed along the trail.	2.8 km
4 	Staging area improvements like signage and amenities for trailhead at Monck Rd and Pinery Rd.	N/A
5 	Signage improvement for trailhead at Monck Rd and Non-motorized ski-trails.	N/A
6 	Signage improvement to trailhead at Pinery Road and Maconachie trail; Location #1.	N/A
7 	Signage improvement to trailhead at Pinery Road and Maconachie trail; Location #2.	N/A
8 	Signage improvement to trailhead at Pinery Rd and Marsh trail.	N/A
9 	Signage improvement to trailhead at Millenium trail.	N/A
10 	Signage improvement to trailhead at VRT in Kinmount.	N/A

Table 13. Summary of Proposed Projects by Focus Area#1

 Trail Improvement
  Trail Management
  Trail Comfort
  Trail Link

## Focus Area #2 East Cameron Lake

Due to conflicts between trail users, this segment of trails requires a more robust design treatment to provide separation and dedicated trail corridors for non-motorized and motorized trails users. Project #6 Option 1 and 2 represent two proposed design alternatives for the same location along this corridor of trail. Each would require additional review and consideration by the City at the time that this project proceeds to implementation to determine the most appropriate and feasible design solution.








Project #	Project Description	Length / #
1 	On-road by-pass along County Rd. 121 for motorized use during the summer months (May-November). Solution follows currently in-place by-pass and will include signage and wayfinding upgrades. During the winter months (December-March) motorized uses will be permitted on VRT.	9 km
2 	Regulatory signage noting restricted uses along the trail and wayfinding signage for active and motorized uses for VRT at Garnet Graham Park.	N /A
3 	Regulatory and wayfinding signage at trailhead for VRT at Northline Rd.	N/A
4 	Regulatory signage noting restricted uses along the trail and wayfinding signage for active and motorized uses from Garnet Graham Park to Northline Rd.	8 km (at 9 gates)
5 	Active Route Signage along trail from Garnet Graham Park to Northline Rd.	5 km
6- Opt. 1 	New motorised trail along unopened road allowance aligning to Explorer trail classification.	Approx. 2-3km
6- Opt. 2 	Trail widening of the VRT from Garnet Graham Park to north of Ripple St.	Approx. 2-3 km

Table 14. Summary of Proposed Projects by Focus Area#2

 Trail Improvement
  Trail Management
  Trail Comfort
  Trail Link

### Focus Area #3 Superior Road Trailhead



Project #	Project Description	Length / #
1 	Expansion of the existing staging area onto the adjacent city-owned lands; improved amenities for major motorized staging area.	N/A
2 	Improved wayfinding with directional guidance to and from the staging area (south to Northline Rd and north to 3 <sup>rd</sup> Concession of Somerville)	5 km

Table 15. Summary of Proposed Projects by Focus Area#3

### Focus Area #4 3<sup>rd</sup> Concession of Somerville













Project #	Project Description	Length / #
1 	Condition improvements to 3rd Concession of Somerville to accommodate ORV's.	5 km
2 	New trail development through unopened road allowance between Hyler Line and County Rd. 49.	5 km
3 	Wayfinding signage marking trail as ORV route.	10 km
4 	Improved regulatory signage at Hyler Line	N/A
5 	Improved regulatory signage at Schell Line.	N/A
6 	Improved regulatory/wayfinding signage at VRT.	N/A
7 	Improved regulatory signage at County Rd. 121.	N/A
8 	Improved regulatory signage at Ledge Hill Rd.	N/A

Table 16. Summary of Proposed Projects by Focus Area#4

 Trail Improvement
  Trail Management
  Trail Comfort
  Trail Link



## Focus Area #5 Fenelon Falls Urban Area


Project #	Project Description	Length / #
1 	Improved signage and wayfinding to VRT Summer Route.	Approx 2 km.

Table 17. Summary of Proposed Projects by Focus Area#5

## Focus Area #6 Lindsay Urban Area








Project #	Project Description	Length / #
1 	New Recreational Connecting Link trail through Pioneer Park.	Approx. 800 m
2 	New multi-use path to replace the sidewalk between Logie Park along Logie St. to intersection of VRT and KTCT.	Approx. 800 m
3 	New staging area at Thunder Bridge Rd. and Angeline St. N.	N/A
4 	Upgraded signage at Trailhead to assist with ATV wayfinding and promote by-pass to Thunder Bridge Rd.	N/A
5 	New off-street trail link connecting Rotary Trail and McDonnell Park (additional coordination required with Parks Canada).	Approx. 200 m
6 	New signage and kiosk for trailhead at KTCT and VRT intersection.	N/A
7 	New parking area at KTCT and VRT intersection.	N/A

Table 18. Summary of Proposed Projects by Focus Area#6

 Trail Improvement
  Trail Management
  Trail Comfort
  Trail Link

## Focus Area #7 Bobcaygeon Urban Area














Project #	Project Description	Length / #
1 	Recreational connecting link between Cedartree Lane and Wilderness Park based on design criteria of Recreational Connecting Link.	Approx. 400 m
2 	Formalization of existing informal paths in Forbert Memorial Pool and Riverview Park.	Approx. 800 m
3 	New signage in downtown Bobcaygeon with wayfinding to trails.	N/A

Table 19. Summary of Proposed Projects by Focus Area#7

## Focus Area #8 Emily Forest Tract

Project #	Project Description	Length / #
1 	Condition improvements to existing trail.	2 km
2 	New trail section based on natural/niche trail classification.	1 km
3 	Parking area improvement to the Trailhead at Peace Rd./Cowan's Bay.	N/A
4 	New signboards with information on Emily Forest Tract at Peace Rd. Trailhead.	N/A
5 	Signage improvements Cowan's Bay subdivision trailhead.	N/A
6 	New switchback to replace the existing staircase.	N/A
7 	Upgrade to self-weathering steel truss pedestrian bridge.	N/A

 Trail Improvement
  Trail Management
  Trail Comfort
  Trail Link




Project #	Project Description	Length / #
8 	New benches provided every 800m along trail.	4 km
9 	New signage along trail for wayfinding. Pathway marker signs.	4 km
10 	New waterway trail connection to Pigeon Lake.	400 m

Table 20. Summary of Proposed Projects by Focus Area#8

## Focus Area #9 Pontypool Forest Tract










Project #	Project Description	Length / #
1 	New construction of a bike pump track with a naturalized surface.	Approx. 10k-15k sq. ft. (0.4 acres)
2 	Development of new staging area with parking.	N/A
3 	New regulatory signage to manage interactions of trail users and cars at forest tract main entrance.	N/A
4 	Improvements to existing trail condition in terms of drainage improvements and surface condition improvements.	TBD
5 	New signboard with directional information for the forest tract.	N/A

Table 21. Summary of Proposed Projects by Focus Area#9

 Trail Improvement
  Trail Management
  Trail Comfort
  Trail Link

## Focus Area #10 Bethany Area






Project #	Project Description	Length / #
1 	New midblock crossing for snowmobiles to cross from VRT on east of Ski Hill Rd. to VRT on west.	N/A
2 	New staging area east of Ski Hill Rd., including landscaping treatments.	N/A
3 	New regulatory signage along route.	150 m
4 	New shared-use trail connecting Ski Hill Rd. to VRT.	50 m
5 	New shared-use trail connecting Ski Hill Rd. to VRT in a woodland setting.	750 m

Table 22. Summary of Proposed Projects by Focus Area#10

## Focus Area #11 Kawartha Trans Canada Trail






Project #	Project Description	Length / #
1 	Midblock crossing at Angeline St.	N/A

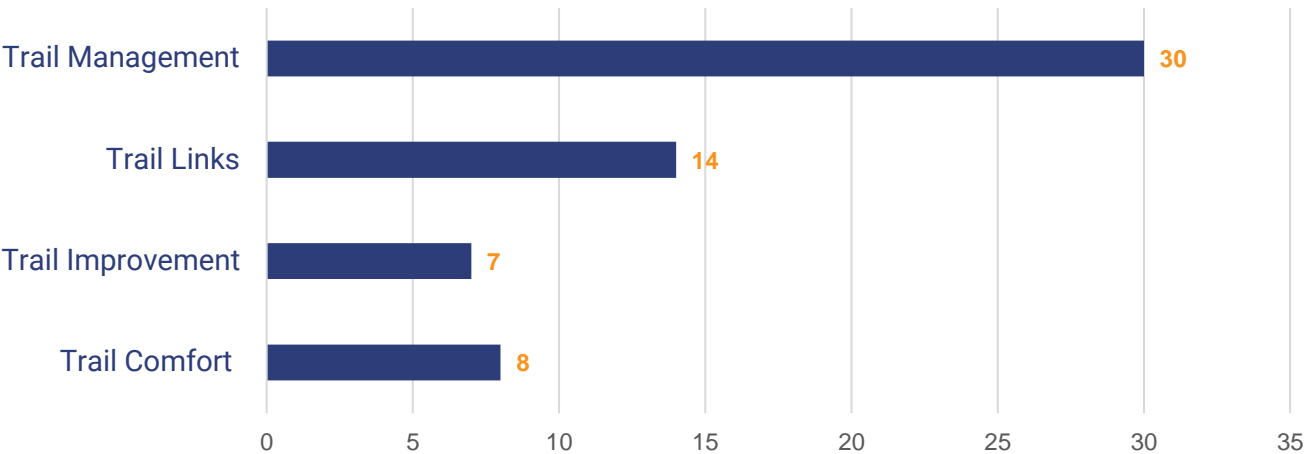
Table 23. Summary of Proposed Projects by Focus Area#11

 Trail Improvement
  Trail Management
  Trail Comfort
  Trail Link

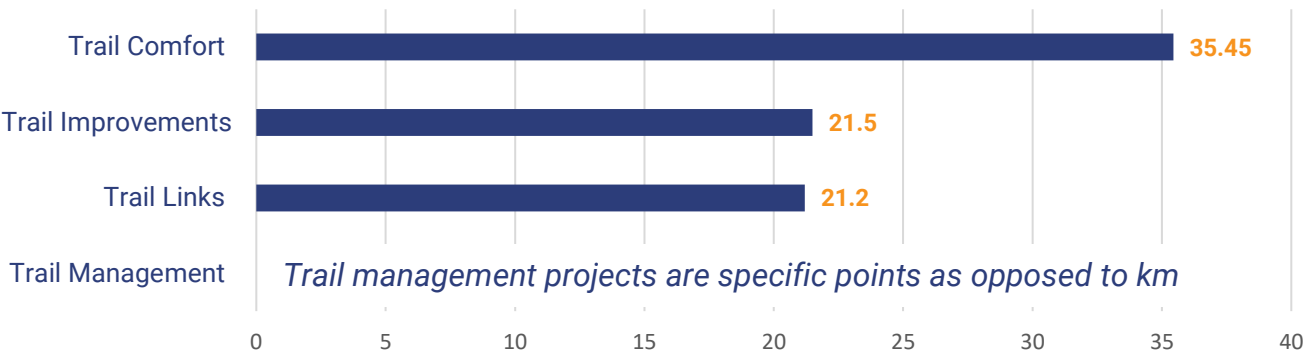


To better understand the impact of the proposed trail focus areas and trail projects, a series of infographics have been developed representing trail recommendations by geography of the City of Kawartha Lakes, trail users and catchment area. The information provided is intended to be used as the basis for improved trail related communications and education – see more details in Section 2.3.

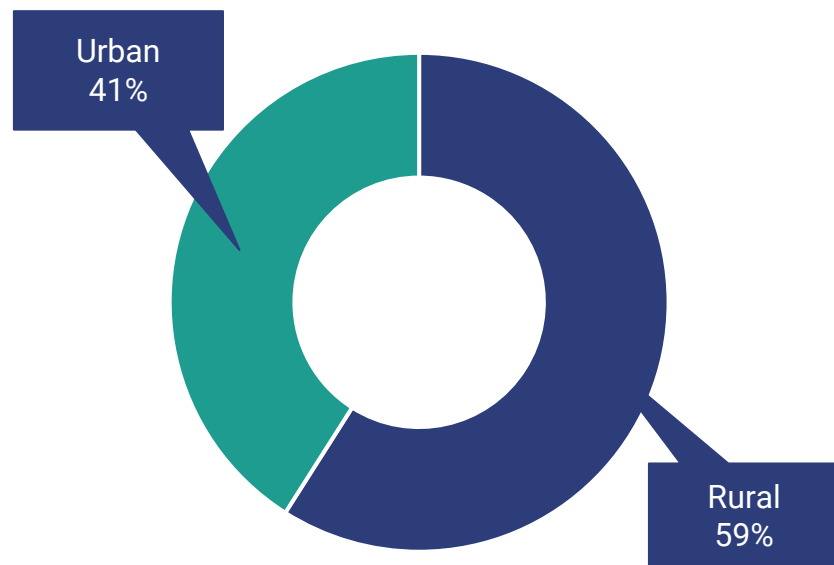
Number of Projects by Type



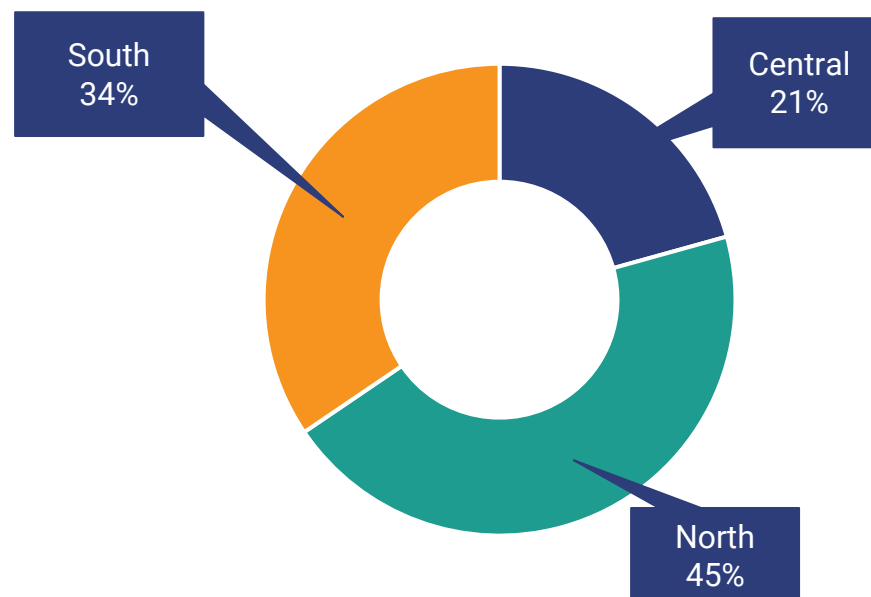
Total Kilometres by Project



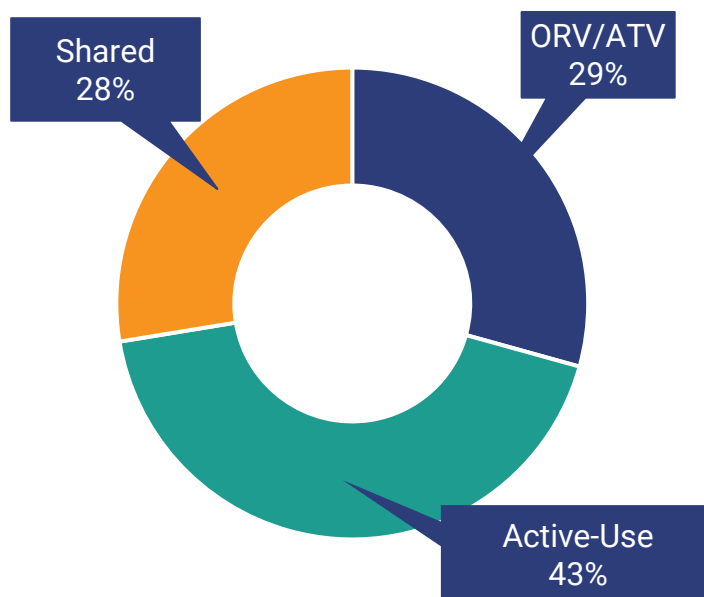
### Trail Projects by Land Type



### Trail Projects by Area



### Trail Projects by Mode-Type



### **2.1.4 Monitoring Trail Infrastructure Opportunities**

It is important to note that both the focus areas and trail projects proposed do not represent an exhaustive and complete list of all potential trail improvements. As noted in the introduction to Chapter 2.0, there were numerous other trail opportunities that were identified and an original list of 24 focus areas for consideration.

Considering the budget and personnel capacity of the City and the timeline of the project it was necessary to concentrate on the trail focus areas and projects that were considered highest priority. These included those that were identified as most important to the community members and stakeholders as well as those that were considered reasonable and feasible for implementation within a 20-year horizon to achieve the trail vision and principles.

A detailed overview of all potential trail improvements and focus areas has been provided to the City and should be referenced as the TMPU proceeds with implementation along with consideration for additional trail focus area or project opportunities identified through public or stakeholder input. The information contained within Chapter 2.0, the detailed project database, the consultation record, and input provided through municipal documentation portals is to be used as the basis for **Infrastructure Recommendation #4**.

## 2.2 Design

### Design refers to...

The consistent application of guidelines and standards to support the look and feel of various trail elements such as trail corridor classification, signage and wayfinding, amenities, crossings, trailheads, and trail barrier features such as bridges.

	Recommendation	Timeline
★	<b>Recommendation #1</b>	The signage and wayfinding guidelines are to be reviewed and a comprehensive signage and wayfinding strategy is to be developed and implemented.
	<b>Recommendation #2</b>	The trail classifications as identified in the 2023 Trails Master Plan Update are to be utilized as the primary guidance for trail design as projects proceed to implementation.
	<b>Recommendation #3</b>	The trail standards are to be adopted as part of the City's infrastructure guidelines as part of the annual update process.
	<b>Recommendation #4</b>	Trail amenities are to be implemented in a consistent manner throughout the municipality including new trails and trail improvements through the application of the amenity selection and implementation tool identified in the plan.
	<b>Recommendation #5</b>	Where applicable, provincially accepted design guidelines and standards should take precedence over those included in the trail plan update including Accessibility for Ontarians with Disabilities Act, TAC Guidelines and Ontario Traffic Manual Book 15.
🌲	<b>Recommendation #6</b>	Developers are to be provided with the trails master plan as part of the Site Plan approval process to ensure design consistency of trails in place of parkland dedication.

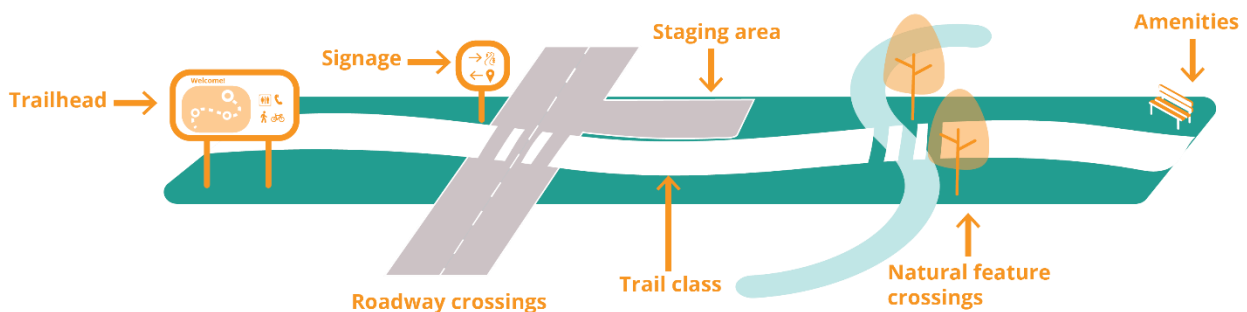


Trail guidelines and standards have been developed and recommended to guide design decision making, to ensure consistency throughout the City of Kawartha Lakes. The trail design guidelines are meant to ensure Kawartha Lakes is utilizing best practices for creating and managing safe, enjoyable, accessible, and sustainable trail experiences. The City of Kawartha Lakes trail design guidelines and standards provide guidance on 6 design elements:

- Trail type in the form of Trail Classifications
- Amenities
- Trailheads and Staging Areas
- Crossings
- Sign Classifications

Each of these design elements is critical when designing and implementing a trail linkage. They occur at key points along the corridor to support comfort and safe use, rest, and accessibility as well as route and trip decision making. **Figure 4** illustrates the conceptual application of these features along a “typical” trail corridor.

**Figure 4. Overview of Trail Design Guideline and Standard Application**



The City of Kawartha Lakes trail design guidelines and standards have been developed to provide a unique and context specific approach to trail related design challenges. They reflect the unique features and considerations of the City including typical trail users, trail conditions and destinations.

In some instances, however, it isn't necessary to adopt new design guidelines and standards. For consistency purposes, it is most effective to utilize provincially and federally adopted design guidelines and standards. The examples provided in **Design Recommendation #5** should be utilized along with the City's trail guidelines and standards as the City proceeds with the implementation of proposed trail projects.

Navigating some of these policies can be a challenge when trying to understand which standards apply and which need to be considered. Accessibility and safety and comfort are key considerations when it comes to trails in Kawartha Lakes but due to the unique conditions and contexts in which trails occur or the desired experience it isn't always possible to accommodate accessible standards.

## Understanding AODA and its impacts...

The **Accessibility for Ontarians with Disabilities Act, (AODA, 2005)** states that "The people of Ontario support the right of persons of all ages with disabilities to enjoy equal opportunity and to participate fully in the life of the province." Ontario Regulation 413/12 (O.Reg 413/12) is the built environment standard which is considered the most applicable series of accessible guidelines and criteria which apply to new construction and extensive renovation of trails and exterior paths of travel. O.Reg 413/12 groups outdoor pedestrian routes into one of three categories as follows:

- **Paths of Exterior Travel:** which includes sidewalks and exterior walkways that connect directly to buildings and facilities. Examples include walkways that connect parking lots to buildings, main walkways in parks that connect to park pavilions, playgrounds and washroom buildings etc.
- **Beach Access Routes:** which are defined as the main connecting walkway(s) and beaches intended for public use.
- **Recreational Trails:** which encompass a range of facility types ranging from hard surface multi-use trails in major urban parks to natural surface walking trails in more remote areas.

Sections 80.8 and 80.10 in O.Reg. 413/12 provides the technical requirements for Recreational Trails. Some of the key requirements include:

- A minimum 1.0m wide tread free from obstructions and a minimum of 2.1m clear head room above trail
- Trail surfaces that are firm and stable
- Where trails are constructed adjacent to water or a drop-off the trail must have edge protection that prevents users from slipping over the edge. The top of the edge protection must be at least 50mm above the trail surface and it must be designed to not impede the drainage of the trail surface. Edge protection adjacent to water or a drop-off is not required where there is a protective barrier /railing that runs along the edge of the trail
- Where there are gates/barriers at trail entrances they must have an opening of between 850 mm and 1000mm

- Trailhead signage must be provided that indicates the length of the trail; type of surface; average and minimum trail width; average maximum running/longitudinal and cross slope; and the location of amenities (where provided). Signage must have text that has a high tonal contrast with background colours to facilitate visual recognition, and text must use a sans serif font
- Brochures and media used to describe the trail must convey the same information in the same manner as required for trailhead signs
- Information on trailhead signs and brochures (e.g. slope, width etc.), as opposed to subjective information (e.g. level of difficulty rating) about the trail's characteristics allows the user to make an informed decision whether to use the trail before they set out, based on their personal level of ability

This section of O.Reg. 413/12 also recognizes exceptions where accessibility requirements can be waived. These include one or more of the following:

- The requirements, or some of them, would likely affect the cultural heritage value or interest of a property identified, designated, or otherwise protected under the Ontario Heritage Act, places designated as National Historic Sites, or historic places marked or commemorated under the Historic Sites and Monuments Act.
- The requirements, or some of them, might damage, directly or indirectly, the cultural heritage or natural heritage resources on a property included in the list of United Nations Educational, Scientific and Cultural Organization's (UNESCO) World Heritage sites.
- There is a significant risk that the requirements, or some of them, would adversely affect water, fish, wildlife, plants, invertebrates, species at risk, ecological integrity, or natural heritage values, whether the adverse effects are direct or indirect.
- It is not practicable to comply with the requirements, or some of them, because existing physical or site constraints prohibit modification or addition of elements, spaces or features that would be required to meet accessibility requirements.

The trail classifications that have been prepared and adopted for the City of Kawartha Lakes clearly identifies specific classification that commit to meeting the AODA built environment standards, reflecting the above-mentioned design considerations. For those trails where it would not be possible or desired to achieve the standards, appropriate communication will be prioritized a part of the consultation, design, and implementation process.

The City is obligated to consult with the accessibility community before they construct new or redevelop existing trails. This consultation can take place as part of consultations with the public or through a local accessibility advisory committee. The Kawartha Lakes Accessibility Advisory Committee (KLAAC) is a provincially mandated Committee of Council. Each member appointed by Council to provide advice on accessibility for people with disabilities and the accessibility standards enacted under the Accessibility for Ontarians with Disabilities Act, 2005. People with disabilities must make up at least half of the Committee.

Engaging KLAAC as part of TMPU next steps will be critical to ensuring accessibility considerations and needs are reflected in future initiatives. Consultations typically would focus on elements of the design including trail slope, the need for and location of ramps on the trail and the need for, location and design of rest areas, passing areas, viewing areas, amenities along the trail and other pertinent trail features.

## Understanding trails and safety...

Trails should be designed to allow users to feel comfortable, safe, and secure where and when possible. Personal safety can be an issue for many individuals. They typically arise more frequently with; women, the elderly, and children, who are considered to be among the most vulnerable groups.

Principles of **Crime Prevention Through Environmental Design (CPTED)** provide guidance on how to consider and appropriately design with comfort and safety in mind. CPTED should be considered and appropriately applied to help address security issues concerning the use of City trails, particularly in locations where trails are infrequently used, isolated or in areas where security problems have occurred in the past. There are four core CTPED principles which include natural access control, natural surveillance, territorial reinforcement, and maintenance.

Understanding how these principles translate to municipal planning and design is important to help inform future next steps. Some specific design considerations that have been employed by municipalities include:

- Providing good visibility by others by having routes pass through well-used public spaces.
- Provide the ability to find and obtain help: Signage that tells users where they are along the trail system.
- Provide “escape” routes from isolated areas at regular intervals.



- Maintain sight lines and sight distances that are appropriately open to allow good visibility by users.
- Provide trailhead parking in highly visible areas.
- Minimize routing close to features that create hiding places such as breaks in building facades, stairwells, dense shrubs and fences.
- Design underpasses and bridges so that users can see the end of the feature as well as the area beyond.
- Signs near entrances to isolated areas can be used to inform users that the area is isolated and suggest alternative routes.

The following sections provide an overview of the Trail Design Guidelines addressing the six components noted on page 45. The information contained within this section and the following are the primary resources that the City are encouraged to share with their partners to achieve consistent design of trail infrastructure. As per **Design Recommendation #6**, the City should utilize this information as a resource when communicating with developers as part of the site plan review and approvals process.

2.2.1 Trail Classifications

A classification is most effective when it is organized in a way that resonates with the needs of the municipality in terms of user types, land uses, or experience. In the context of Kawartha Lakes, the proposed trail classification system was identified to reflect the three trail user type categories outlined in Section 1.3.2 and is intended to be used as one of the primary references for City staff as per **Design Recommendation #2**. It reflects a strong need for clarity around user permissions and restrictions as well as design, maintenance, and enforcement. A high-level overview of the trail types and design considerations are presented in **Table 24, Table 15, and Table 16**, with details have been provided to the City. Also provided are the supporting trail classification standards which have been developed for the City’s adoption as part of the infrastructure guidelines identified in **Design Recommendation #3**.

Active Use Trails

These trails are designed to be used for walking/hiking, as well as for use by self-propelled or accessible/mobility supportive devices, e-mobility, and niche seasonal uses.




Trail Type	User	Width	Accessibility	Surface	Sample View
Type 1: Fully Accessible Trail	Permitted: Pedestrian, mixed uses, vehicular for servicing only Restricted: All motorized uses	3.0m typical may exceed 3.5 or 4.5 m Constrained sections could reduce to 2.4m	Meets or exceeds minimum accessibility requirements where feasible	Typically, hard surface (asphalt)	
Type 2: Recreational Connecting Link	Permitted: Pedestrians, cyclists, hikers, horseback riding, cross-county skiing, snowshoeing Restricted: All motorized uses	3.0m typical Constrained areas could reduce to 2.4m	Meets accessibility requirements where feasible	Granular surface (i.e. limestone screenings)	
Type 3: Natural Use Trail	Permitted: Hiking, mountain biking, may include special uses on a location-by- location basis (e.g. snowshoe, horseback, fat bikes, etc.) Restricted: All motorized uses	1.0 – 2.0 m typical	May be non-compliant – natural or heritage features take precedence over accessibility	Granular or natural surface based on the conditions of the corridor	

Table 24. Overview of Active Use Trail Classifications for Kawartha Lakes

Shared Use Trails

Trails that are designed for safe shared use by active modes as well as motorized trail uses, such as ORV/OHVs and snowmobiles.




Trail Type	User	Width	Accessibility	Surface	Sample View
Type 1: Fully Shared Use Corridor	Permitted: Accommodates all potential trail users for various seasonal uses Restricted: None	3.5 - 4.5m typical	Meets accessibility requirements where feasible only	Granular surface (limestone screenings, granite screenings, granular A)	
Type 2: Dedicated Use Corridor	Permitted: Mixed-use, accommodates all user groups, ages, abilities Restricted: None	Minimum 6.0m wide (3.5m min. for motorized + 0.70m min. buffer + min. 1.8m non-motorized)	Meets or exceeds minimum accessibility requirements for the active use component of the trail corridor	Non-motorized: Granular or hard surface Motorized: Granular	
Type 3: On-road Connecting Link	Permitted: Focus on motorized uses, but use by pedestrians and cyclists is permitted depending on conditions Restricted: Dependent on municipal bylaws and conditions	Minimum 1.5m with increasing width to accommodate shared use in select locations	No commitment, road takes precedence	Hard Surface (asphalt) or compact granular surface	

Table 25. Overview of Shared Use Trail Classifications for Kawartha Lakes

ORV / OHV Trails

Trails meant for motorized vehicles manufactured for off-road use, including ATVs, utility vehicles, side by sides and snowmobiles, and may include off-road, two-wheeled motorcycle in locations where appropriate.


Trail Type	User	Width	Accessibility	Surface	Sample View
Type 1: Explorer Trail	Permitted: All ORV vehicles with a focus on ATV and snowmobiles Restricted: Active users	2.0m – 3.0m typical – may depend on the space available	Maintaining natural heritage values takes precedence over accessibility	Natural surface May include granular surface	

Table 26. Overview of ORV / OHV Trail Classifications for Kawartha Lakes

A series of standards have been prepared for each of the trail classifications noted above. The standards have been provided to the City are intended to be adopted as part of the City’s Infrastructure Guidelines once the TMPU has been adopted as per **design recommendation #3**.

## 2.2.2 Additional Design Considerations

Additional design considerations refers to other design elements that are required when implementing proposed trail projects as identified in the TMPU. There are three core components of this section including trail amenities, trail heads and staging areas, crossings, and signage/wayfinding.

### Trail Amenities, Trailheads and Staging Areas

Network continuity, connectivity and feasibility are further enhanced through the implementation of trail amenities. Trail amenities include but are not limited to the following:

- Vehicle parking
- Parking for bicycles and other active uses
- Benches and/or rest areas
- Waste bins
- Washrooms
- Gates/barriers
- Water fountains/taps
- Loading zones
- Shelter
- Drop off areas
- Plantings
- Supplementary signage
- Lighting\*

\*Note: lighting is recommended on a case-by-case basis and should be assessed using CPTED guidance prior to implementation.

The implementation of trail amenities can be a determining factor for trail users and cyclists heavily influencing comfort levels and perceived safety. As part of the TMPU, the implementation of trail amenities is identified as part trail comfort and trail improvement projects as identified in in Section 2.1.

When trail amenities are strategically combined, they are sometimes referred to as trailheads or staging areas. The difference in these two design treatments is the scale. Additional details on the proposed application of trailheads and staging areas in the City of Kawartha Lakes is provided on the following pages and are the basis for **Design Recommendation #4**.



## Trailheads

Trailheads are a developed site that provides access to one or more trails, normally smaller than staging areas with a few parking spots. Typically contains identification for a trail system with directional signage and waste bins. May include basic toilets. Specialized features are not common.

For the purposes of the Kawartha Lakes TMPU, major and minor trailheads have been identified for implementation.

### Major Trailheads

Major trailheads are implemented:

- To help users identify and confirm they have arrived at and are on a Kawartha Lakes trail
- To communicate the expectations and experiences
- At the major points of entry and exit along the trail such as a crossing.

When designing and implementing a major trailhead, the following information should be considered for inclusion:

- Trail branding with logo
- Trail or trail network name
- A map of the trail system indicating accessibility and assigned level of difficulties
- Focused trail route maps
- Pocket maps or pamphlets in a clear, waterproof container
- Orientation information indicating the user/visitor's current location
- Rules and regulations of the trail
- Permitted and restricted uses
- Amenity information
- Key points of interest
- Warnings and potential hazards

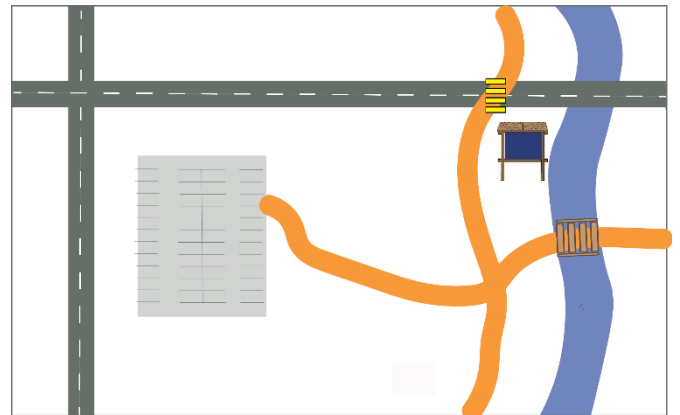


Figure 5. Conceptual Application of Major Trailhead & Major Trailhead Concept



- Kawartha Lakes Parks and Recreation contact information and hours of operation
- Any sponsorship or partnership information and logos
- Any trail-related event information

### **Minor Trailheads**

Minor trailheads are implemented:

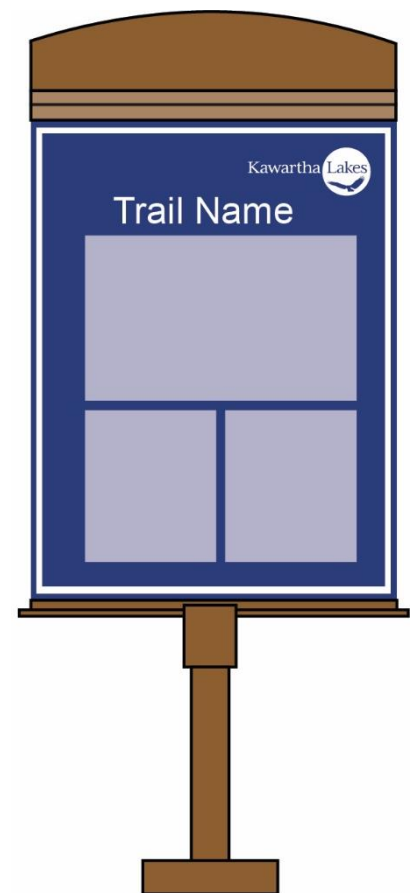
- To help users identify and confirm they have arrived at and/or are on a trail
- To communicate the expectations and experiences of trail users.
- At smaller, less utilized areas of the trail and at key decision points.

When designing and implementing a minor trailhead, the following information should be considered for inclusion:

- Trail branding with logo
- Trail or trail network name
- A map of the trail within the trail system indicating accessibility and assigned level of difficulties
- Orientation information indicating the user/visitor's current location
- Rules and regulations
- Permitted and restricted uses
- Amenity information
- Points of interest
- Distances and typical durations for pedestrians and cyclists
- Warnings and potential hazards



**Figure 6. Minor Trailhead Application Concept & Design Concept**



## Staging Areas

Where there is higher demand for a trail and when a large amount of space is available at a trail start or end point, a staging area is considered more appropriate. Staging areas are a developed site that provides convenient access to attractions such as trails, fishing spots, swimming areas, etc.

Typically staging areas are designed to include parking spots, toilets, waste bins, seating, informational kiosks and directional signs. May include specialized features such as loading areas, ramps, bike repair stations, equestrian hitches, ski racks, water facilities, warming stations, and so on. Sets visitor/user comfort and experience.

For the purposes of the Kawartha Lakes TMPU, staging areas are recommended to communicate and delineate:

- When there are aspects of the trail that need to be navigated in a unique way
- User types, how they arrive and any special needs or requirements e.g., turning for trailers, ramps for equipment, seating and gathering spaces
- The tone for user/visitor experience and provides supporting amenities
- Key trailheads and communicates important trail information
- Accessibility Design features change, or information needs to be conveyed

A staging area typology or classification has been identified based on the trail classifications noted in Section 2.1. **Error! Reference source not found.** Table 16 provides an overview of the proposed staging area classifications which identifies proposed staging area types for each of the categories of trail classification – active, shared or ORV/OHV.

The degree of applicability of trail amenities is determined based on the intended users as well as the degree to which the staging area is expected to be used. For example, if there is expected to be a high degree of use at the trailhead and a wide range of users, the trailhead will likely require a more robust design treatment with a wider range of amenity types and more frequent maintenance.

The information is intended to be used as the City proceeds with the implementation of recommended trailheads and staging areas as per the trail projects outlined in Section 2.1.3. It should also be used as new opportunities for staging areas or trailheads emerge as identified by the City or other stakeholders.

Trail Classification	SA Type	VP	OP	TH	Toilet	Signs	Seats	Waste	Ramps
Active	Major	Y	V	Y	Y	Y	Y	Y	N
Active	Minor	V	V	Y	V	Y	V	Y	N
Shared	Major	Y	Y	Y	Y	Y	Y	Y	V
Shared	Minor	Y	V	Y	V	Y	V	Y	N
ORV / OHV	Major	Y	N	Y	Y	Y	Y	Y	Y
ORV / OHV	Minor	N	N	Y	N	Y	V	Y	V

Table 27. Overview of Trail Staging Area Design Alternatives by Trail Classification

**Legend:**

**SA Type** – Staging area type – either major or minor

**VP** – Vehicular parking

**OP** – Other parking

**TH** – Trailheads i.e. signage

**Y** – Yes, this amenity should be integrated into the staging area design

**V** – Varies, the integration of this amenity during the design stage should be considered based on available space and budget

**N** – No, this amenity should not be integrated into the staging area design



## Crossings

Inevitably the trail network will need to crossroads, natural features such as waterways and other physical barriers. In these cases, a design feature would be needed to guide users from one part of a trail to another. By implementing crossings and structures that reflect the design of the trail and the conditions that are being crossed a greater sense of connectivity can be achieved.

When designing trails it is likely that at some point the trail connection will intersect with a roadway. At each of these locations there should be a distinct or clearly delineated access point where pedestrian, cyclist and vehicle traffic will need to be managed. Trail crossings or terminus points should be designed to clearly articulate the way in which users are meant to cross the roadway or how they should transition to the next portion of the trail. The following are some of the basic elements which should be considered when a trail approaches or crosses a major or minor roadway.

- Creating and maintaining an open sight triangle at the crossing point to allow trail users to see approaching vehicles and for trail users to be seen by drivers in approaching vehicles
- Access barriers on the trail which serve to:
  - Prevent unauthorized users from entering the trail, and
  - Act as a visual cue to trail users that they are approaching an intersection with the road
- Caution signs along the roadway in advance of the crossing point to alert motorists to the upcoming crossing
- Caution signs along the trail to alert users of the upcoming roadway crossing
- Aligning the crossing point to achieve as close to possible a perpendicular crossing of the roadway to minimize the time that users are in the traveled portion of the roadway
- A concrete ramp with tactile warning plates in the boulevard and curb ramps on both sides of the road to allow users to enter and cross the roadway
- Pavement markings where appropriate:
  - Pavement markings, to delineate a crossing should only be considered at crossings where there is some form of vehicle control in place (e.g. stop sign, or traffic signal or pedestrian crossover).
  - Pavement markings should not be used at uncontrolled trail intersections with roads (i.e. free flowing vehicular traffic that is not controlled by a stop sign or traffic signal). Trail users are required to stop and wait for a gap in traffic at uncontrolled intersections. Pavement markings at uncontrolled crossings may give trail users the false sense that they have the right-of-way over motor vehicles, contrary to the Highway Traffic Act.

In some locations signing on the trail may not be enough to get trail users to stop before crossing the road. Under these circumstances or in situations where the sight lines for motorists are reduced and/or where there is a tendency for motorists to travel faster than desirable, the addition of other elements into the trail crossing may be necessary. Changing the trail alignment may help to get trail users to slow and stop prior to crossing. Changes to the streetscape may also provide a visual cue and traffic calming effect for vehicles.

The following are design guidelines and considerations related to types and conditions of trail crossings. In the context of the City of Kawartha Lakes TMPU there are a series of proposed crossings as part of the trail projects noted in Section 2.1.

The information contained in these guidelines are intended to be used to determine the most appropriate crossing once the City proceeds with design and implementation. The type of crossing treatment selected generally depends on the type of road being crossed (e.g., low volume local street vs. urban arterial); number of lanes being crossed (e.g., 2-lane vs. multi-lane); traffic volume and vehicle operating speeds; sight lines (e.g., horizontal, and vertical road alignment); and the anticipated volume of trail users.

### **Advance Warning Sign**

- 2-lane road cross-section
- Good sight lines (no horizontal or vertical curves in road that obstruct visibility of trail users or oncoming vehicles)
- Low motor vehicle traffic volume
- Low to moderate pedestrian volume (consider existing conditions and potential future demand)
- Residential neighbourhood in urban setting or collector road on the urban fringe
- Low cost to install

### **Centre Median Refuge**

- 2-lane or multi-lane cross-section
- Generally good sight lines (no horizontal or vertical curves in road that obstruct visibility of trail users or oncoming vehicles), though could be used on 2-lane roads where there are minor sight line limitations
- Low motor vehicle traffic volume
- Low to moderate pedestrian volume (consider existing conditions and potential future demand)
- Rural, urban fringe or urban setting (e.g., collector or minor arterial road in urban setting)
- Low to moderate cost to install

## **Pedestrian Crossover**

- 2-lane or multi-lane cross-section
- Type 'A', 'B' 'C' or 'D' as per Ontario Traffic Manual Book 15
- Good or slightly obstructed sight lines
- Moderate motor vehicle traffic volume
- Low to moderate pedestrian volume (consider existing conditions and potential future demand)
- Urban or urban fringe setting (e.g., collector or minor arterial road in urban setting)
- Moderate cost to install

## **Mid-block Pedestrian Signal (With or Without Centre Median)**

- Multi-lane cross-section
- Applied in conditions with good sight lines or compromised sight lines (other factors have greater influence on decision than sight lines)
- Moderate to high motor vehicle traffic volume
- Moderate to high pedestrian volume (consider existing conditions and potential future demand)
- Urban or urban fringe setting (e.g., arterial road in urban setting)
- No signal-controlled nearby (e.g. within 200 m of trail crossing point)
- Moderate to high cost to install

## **Intersection Pedestrian Signal**

- Multi-lane cross-section
- Applied in conditions with good sight lines or compromised sight lines (other factors have greater influence on decision than sight lines)
- Moderate to high motor vehicle traffic volume
- Moderate to high pedestrian volume (consider existing conditions and potential future demand)
- Urban setting (e.g., arterial road)
- Trail crossing cannot be routed to a nearby stop-controlled intersection (e.g. within 200 m of trail crossing point)
- Note that signal control can also assist motor vehicles entering the arterial from the side street
- Moderate to high cost to install

## Cross Ride

- 2-lane or multi-lane cross-section
- Applied in conditions with good sight lines or compromised sight lines (other factors have greater influence on decision than sight lines)
- Moderate to high motor vehicle traffic volume
- Moderate to high pedestrian and cyclist volume (consider existing conditions and potential future demand)
- Urban or urban fringe setting (e.g., arterial road in urban setting)
- Designed as per Ontario Traffic Manual Book 18
- Bicycle crossing signal head (additional to pedestrian crossing signal head) which permits cyclists to ride through the pedestrian crossover area without contravening the Highway Traffic Act
- Moderate cost to install when retrofitting an existing signalized crossing, moderate to high cost to install for locations where no signals exist

## Grade Separated Crossing

- Controlled access highway, multi-lane road cross-section
- Can be applied in conditions with good or compromised sight lines (other factors have greater influence on decision than sight lines)
- High to very high motor vehicle traffic volume
- High pedestrian volume (consider existing conditions and potential future demand)
- Urban, urban fringe or rural setting (e.g., arterial road or controlled access highway in the urban setting)
- Trail crossing cannot be routed to a nearby signal-controlled intersection, underpass, or overpass
- Surrounding grades facilitate the design of a seamless crossing for trail users and the use of stairs or steep ramps can be avoided. Stairs or steep ramps on approach may discourage use of the grade separation
- High to very high cost to install



## Waterways

Bridges are required for crossings of creeks and rivers. Prefabricated self-weathering steel truss bridges are typically the most cost-effective form of bridge crossing. Though costly elements to design and implement their long service life makes them a worthwhile investment where a bridge is needed.

- Bridge decking must be oriented perpendicular to the path of travel and be slip resistant.
- Slopes on bridges should not exceed 5%.
- Bridge railings should be designed to a minimum height of 1.37m. This minimum height is important where cyclists are using the bridge as the 1.37m height provides the necessary protection due to a cyclist's higher centre of gravity on their bicycle.

## Boardwalks

Where trails pass through sensitive environments such as marshes, swamps, or woodlands with many exposed roots, an elevated trail bed or boardwalk is usually required to minimize impacts on the natural feature. If these areas are left untreated, trail users tend to walk around obstacles such as wet spots, gradually creating a wider or multiple meandering footpaths through the surrounding vegetation, resulting in vegetation trampling and damage.

On tertiary and some secondary trails a low-profile boardwalk may be appropriate and requires modest engineering to develop an appropriate design. For primary and most secondary trails a more sophisticated design and installation is necessary. This is likely to include engineered footings, abutments, structural elements, and railings.

Helical piles are an alternative foundation methodology that is cost effective, and a low impact installation compared to concrete footings. Piles are drilled into the ground with a small skidsteer or mini excavator then left in place to serve as the foundation. Helical piles allow for a narrower disturbance area and reduced numbers of trips to haul in concrete and haul out fill generated by pier excavations. Where finished boardwalk surfaces are less than 60cm above the surrounding grade a curb along the edge of the boardwalk will prevent users from rolling off the edge. Where the difference in grade exceeds 60cm, a railing should be provided.

## Railways

Where the trail network crosses active railway lines crossing designs / design upgrades must follow Transport Canada Grade Crossing Standards (2014).

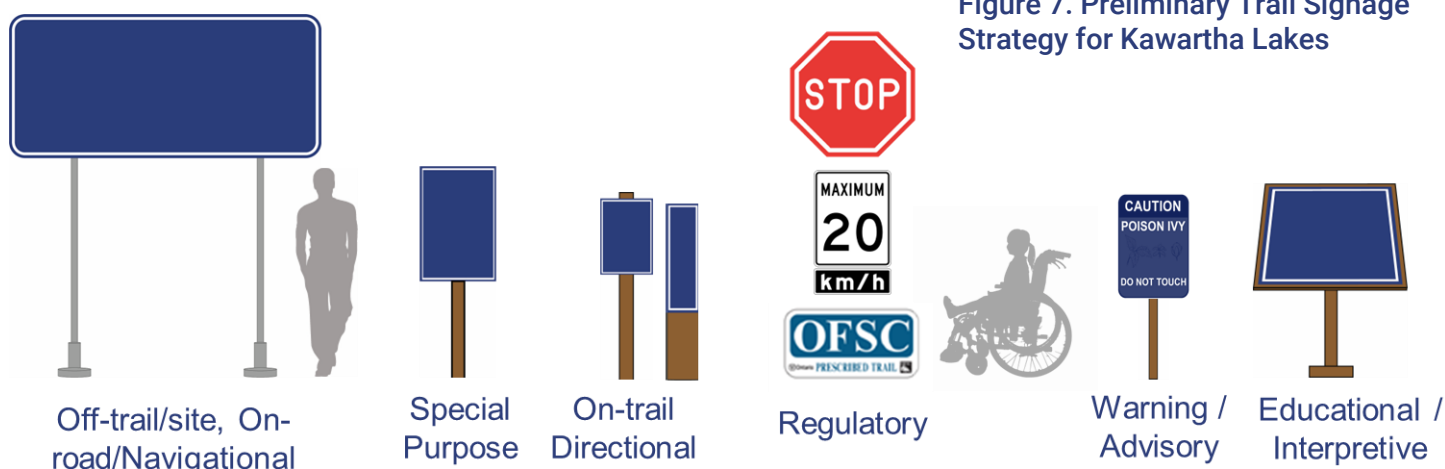
<https://www.tc.gc.ca/media/documents/railsafety/grade-crossing-standards.pdf>

## Signage

The use of trails requires clear information on how to use the trail infrastructure, where to go and how to interact with other users. When designing a trail system, every effort should be made to provide users with sufficient information to feel both safe and comfortable. For the City of Kawartha Lakes Trails Master Plan Update, a high-level signage strategy has been identified as the basis for **Design Recommendation #1**. The signage strategy is not ready for implementation and requires some additional consultation and outreach to confirm the preferred design, application, and placement. At a high-level, the intent of the signage strategy is to design and implement a series of signs across the City to delineate trail experience and use in an aesthetically consistent and cohesive manner. Signage should:

- Articulate user/visitor experience, managing expectations and needed skills
- Communicate details for safety and accessibility (AODA standards may apply)
- Create an integrated wayfinding system: on-road facilities, trails, parks and tourism for motorized and non-motorized users
- Be consistent with higher level design guidance where necessary
- Can bring coherence and consistency to Parks and Recreation and Tourism signage

The base of any signage strategy typically includes a “family” of signs each with a different purpose and message. This family contains unifying design and graphic elements and materials. 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. **Figure 7** is an overview of the types of signage which are proposed to make-up the City of Kawartha Lakes “family” along with some conceptual design applications. Details are provided on the following page.



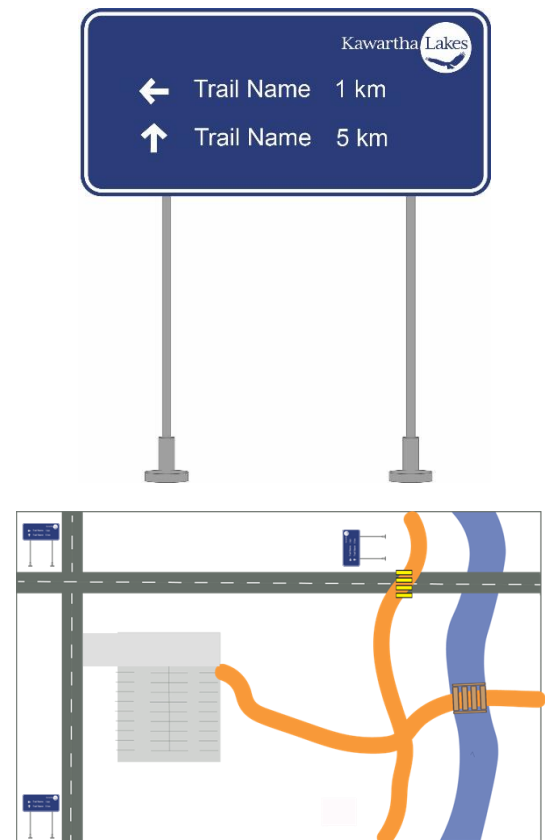
## Off-trail/Site Navigational Signs

**Purpose:** The signs are intended to facilitate awareness and access to trails and are implemented as part of a more robust wayfinding strategy.

**Location:** The intent of these signs is to help users/visitors navigate to trails at major decision points on-road near the trail link. Major destinations including built up areas are a recommended location for these signs or within a 5 km radius of the trailhead/trail staging area.

### Content:

- Trail branding with logo
- Trail or trail network name
- Directional arrows
- Distance and time to trail



## Special Purpose Signs

**Purpose:** The signs are intended to identify information that is unique to the specific trail that it is being implemented. The sign typically provides direction on operational needs or expectations.

**Location:** The signage is typically placed along a trail at 500m intervals to communicate necessary use information including etiquette or safety. In cases where there is a restriction of a specific use, this information would be of importance to include.

### Content:

- Trail branding with logo
- Trail or trail network name
- Destination signs
- Entry fees
- Partnership recognition

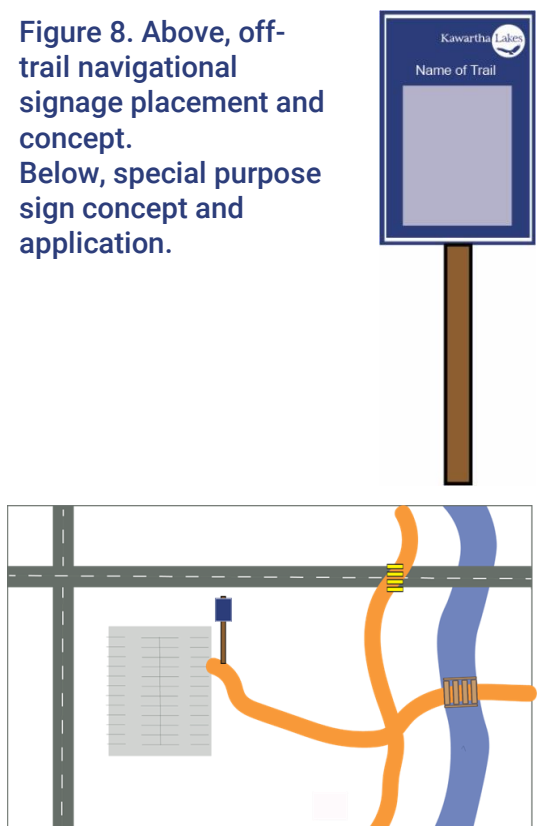


Figure 8. Above, off-trail navigational signage placement and concept. Below, special purpose sign concept and application.

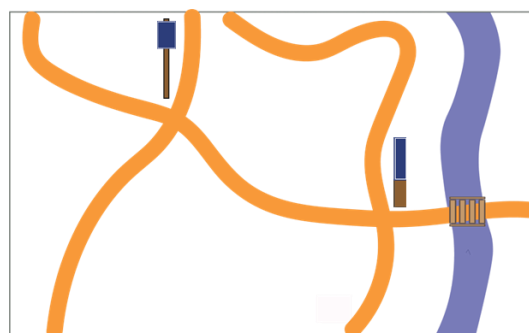
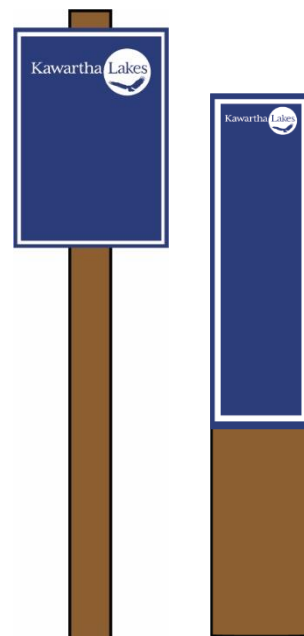
## On-trail Directional Signs

**Purpose:** The signs are intended to provide essential navigational information to the visitor/user and direct users to nearby trails and loops, amenities, and points of interest

**Location:** Signage is intended to be placed at trail junctions and access points along a trail and along a trail linkage or within a forest tract.

### Content:

- Trail branding with logo
- Trail name
- Map of the trail within the trail network
- Orientation information indicating the user/visitor's current location
- Directional arrows
- Distances and typical durations for pedestrians and cyclists
- Points of interest
- Warnings and potential hazards



## Regulatory Signs

**Purpose:** Signs communicate necessary behaviours based on requirements under the Highway Traffic Act. They could communicate information related to safety, permission or prohibition, parking control, boundary markers, protective signs for health and environment and mandatory signs for obligatory action.

**Location:** In clear view, without obstructions and at specific locations to establish and reinforce expectations of all users including on-road motorists, especially in spots with known concerns.

**Content:** Determined by HTA.

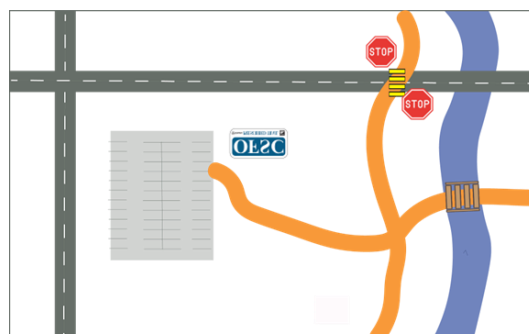


Figure 9. Above, Directional signage concept and application; Below, regulatory signage application and sign examples



## Warning/Advisory Signs

**Purpose:** Communicate essential safety information to the user/visitor based on human behaviour or environmental conditions.

**Location:** Placement determined by the presence of features which would be identified at the time of design confirmation prior to construction. Signs could be placed at any point along the trail and should be at the start and end point prior to trip initiation.

### Content:

- Trail branding with logo
- Highly visible caution notification
- Identification of specific features to be aware of
- Infographics
- QR code for more information / emergency information
- Direction on preferred action

## Educational and Interpretive Signs

**Purpose:** Educational signs may provide ecological, Indigenous and natural heritage information, and may be part of an educationally themed trail or trails that are used specifically for educational purposes in partnerships with schools and organizations.

**Location:** Signage should be implemented at a specific point of interest or special environmental/historical feature and viewing or rest/stop areas

### Content:

- Trail branding with logo
- Feature name
- Identify, explain, and pose questions, and be oriented for a variety of users across a range of ages and abilities

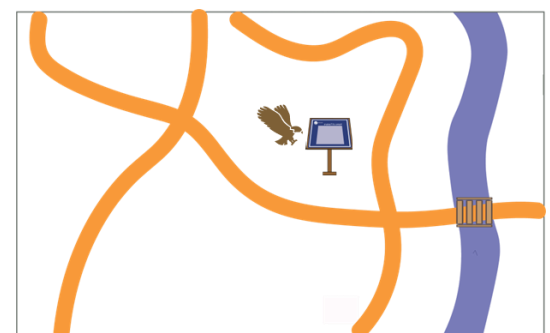
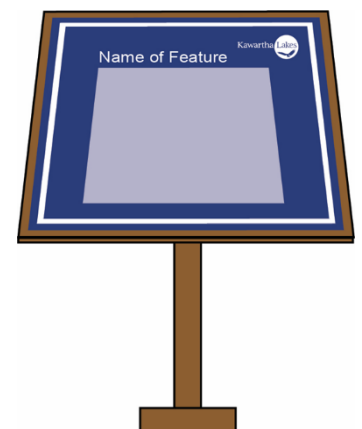
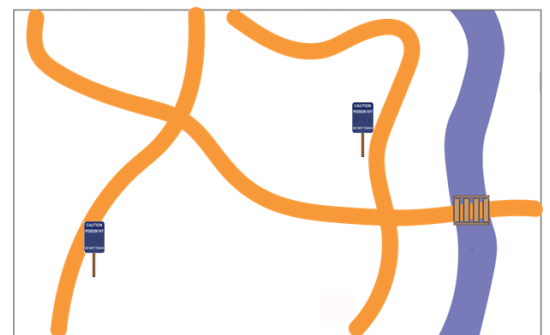





Figure 10. Above, warning / advisory concept and application; Below, educational concept and application.

## 2.3 Education and Outreach

### Education and outreach refers to...

The strategies, tactics, collateral, and programming that is designed and implemented with the intent of influencing the behaviours of those who live, work, and play within the Kawartha Lakes. The intent is to more effectively communicate trail information, encourage participation and strike enthusiasm and interest in achieving and increasing recreational mobility.

	Recommendation	Timeline
	<b>Recommendation #1</b> Partnerships with key stakeholders and organizations should continue to be supported as part of enhanced community outreach.	
	<b>Recommendation #2</b> Establish a trail stewardship program to support City staff with the implementation of the TMPU including trail programming, maintenance, and monitoring.	
	<b>Recommendation #3</b> Parks and Recreation will ensure that online information regarding trails is up to date and relevant exploring trail user spotlights and community-based promotion.	
	<b>Recommendation #4</b> Recommended education and outreach strategies should be reviewed and prioritized by the Parks and Recreation division with one educational initiative to be undertaken each year.	

Currently, the City of Kawartha Lakes has information online at [kawarthalakes.ca](http://kawarthalakes.ca) that provides descriptions of trails, general trail user guidelines, along with a copy of the 2006 Trails Master Plan.

There is also information about and promotion of trails on the City's Tourism website, [explorekawarthalakes.com](http://explorekawarthalakes.com), including specific information about trails, as well as details about cycling and hiking in Kawartha Lakes, which is supported by a strong "Explore Kawartha Lakes" brand and regularly updated social media accounts.

### Cross-Kawartha Trails



Ganaraska Hiking Trail



The Kawartha Trans Canada Trail



Victoria Rail Trail (VRT)



This web presence is further supplemented by dedicated websites for the Kawartha Trans Canada Trail ([ktct.ca](http://ktct.ca)) and the Ganaraska Hiking Trail. This existing online information for residents and visitors, together, make for a strong web presence for trails in Kawartha Lakes. These varying sources of information also indicate the importance of ensuring coordination of information, and ensuring information is regularly updated.

In addition to providing online information, there are considerable enhancements that the City can pursue to ensure it is fully promoting and leveraging the assets that comprise its current and future trail network. An effective education and outreach program involves not only providing information, but also developing engaging community programs that facilitate individual and cultural shifts in belief, behaviour, and attitude regarding trail usage.

A variety of potential programs and initiatives have been identified through the course of developing this plan to facilitate increased trail usage by people of all ages and abilities and in all seasons and help educate about appropriate and safe trail usage by different user groups.

To develop and refine an education and outreach strategy as part of this updated trails plan, the project team followed a multi-step process that involved reviewing existing practices and processes in Kawartha Lakes, assessing challenges and opportunities, investigating best and comparable practices from other municipalities. Costing, funding strategies, and monitoring and management practices were also considered.

Through this process, several education and outreach programs and initiatives were considered. The proceeding section outlines several tactics and initiatives in detail for the City's consideration and prioritization as per **Education and Outreach Recommendation #4**. This review should be completed on an annual basis to determine capacity, effectiveness, and educational needs.

To deliver these initiatives, capacity and financial commitment is expected internally, including ensuring there is a base level of staffing resources within the municipality to move the programs forward outlined in this plan, build relationships between stakeholders, and so that the municipality has as a primary point of contact for trails in Kawartha Lakes. Having this staffing in place can also help the City identify external funding sources and complete grant applications.

Potential external partners to help implement the initiatives below include service clubs, local businesses, and business organizations (i.e. Lindsay Downtown BIA, local chambers of commerce), Kawartha Region Conservation Authority (KRCA), Fleming College, and local schools as per **Education and Outreach Recommendation #1**.

There is an exceptionally strong foundation of trail stakeholders and supports within the City of Kawartha Lakes, where possible, a more formal trail steward program is encouraged as per **Education and Outreach Recommendation #2**. This would include the opportunity for the City to identify and promote individuals throughout the community as trusted City partners who take on an education and potential trail maintenance/management role on behalf of the City. Every attempt should be made to have a diverse series of stewards including a range of ages and abilities, trip user type, etc. The role would be volunteer in nature and would have a one-to-two-year term. An application process would be required by the City to determine the most appropriate candidate. Examples of this type of role have been implemented in the Town of Halton Hills, the Bruce Trail Club, Quinte Conservation, Ganaraska Trail and others.

A more detailed overview of implementation considerations and recommendations are found in Chapter 3.0, specifically the proposed partnerships, their roles, and responsibilities as well as operational costing which could include educational programming.



## Program #1. Maintain Trail Information

Online information regarding trails, including current content at kawarthalakes.ca, explorekawarthalakes.com, as well as other trail-related websites and associated social media accounts, should be promoted, and maintained, ensuring content is up to date and remains coordinated and relevant to its intended audiences. The City should also explore expansion of online content to include community-based promotion, and trail user spotlights. Website usage and social media metrics should be tracked and monitored to determine popularity and refine future messaging. The City should also consider providing maps and other information in print format, to support in-person outreach initiatives, and always including links to more extensive online content.

### Inspiration/examples:

Current web pages and sites, including:

- Kawarthalakes.ca - "Trails and Conservation Areas" page
- Explorekawarthalakes.com (City's Tourism site) - Trails page
- ganaraska-hiking-trail.org

## Program #2. Kawartha Lakes Trail Days

The City is encouraged to organize and promote a series of activities under the theme of "Kawartha Lakes Trail Days" to celebrate ongoing trail initiatives and successes and promote safe and respectful trail use by all users. Events such as these provide an opportunity to connect with residents and visitors about trails in Kawartha Lakes and represent a unique opportunity to focus promotional efforts and reach potential new or occasional trail users and facilitate greater trail usage over the long term.

These days can also help reinforce trail guidelines and rules through educational programming that helps various types of trail users, new and experienced, as well as motorized and active users, to better understand each other and how to safely use and share trail spaces. This event can also be a great opportunity to showcase recent trail network improvements.

Trail Days could take the form of an annual targeted week or weekend with a series of events, or a series of regular weekly, bi-weekly, or otherwise regularly scheduled events at various trail locations. Some of the subsequent initiatives listed below could be coordinated as specific activities that could be organized around a Kawartha Lakes Trail Days theme.

### Inspiration/examples:

- Bruce Trail Day
- Bike the Creek, Brampton
- PCT Days, Pacific Crest Trail, Oregon

### **Program #3. Community Rides / Trail Experiences**

Organizing regular Community Rides and other community trail experiences with various trail user groups can be one of the strongest ways to encourage behaviour change. These experiences could involve “learn to ride” events for either cyclists or ATV riders, or similar community rides for more riders of a variety of experience levels.

Experiences could also take the form of guided walks or hikes that highlight sections of trail and engage participants in related interests such as plant identification, bird watching, or appreciation of natural and cultural heritage of Kawartha Lakes. These types of experiences provide residents and visitors an opportunity to engage in an enjoyable, social activity that enriches their trail experience, while also encouraging them to take advantage of the trail more often on their own in the future.

New trail experiences can build on existing events and activities, such as KRCA’s regular Community Nature Walks.

#### **Inspiration/examples:**

- Community Nature Walks at Ken Reid Conservation Area
- Windsor-Tecumseh Slow Ride
- Mississauga Community Rides
- Brampton Community Rides
- Markham Cycles group rides

### **Program #4. Trail Kiosks**

Although the infrastructure improvements in the plan (Section 2.1) include a number of amenities to improve comfort, amenities can also play a role in education and outreach. Trail kiosks and signage can help provide information regarding trail guidelines and wayfinding, as well as offer a location for printed maps or other materials that trail users can take with them on their trip. Bicycle repair stations and racks at strategic trailhead locations can help foster increased cycling trips and encourage people travelling by bike to stop and explore adjacent businesses and walking-only trails. All of these types of amenities can also offer opportunities for revenue to help these amenities pay for themselves, and help support other trail initiatives, through incorporating advertising opportunities, donation boxes, or pay-what-you-can interpretive trail maps and guides.

#### **Inspiration/examples:**

- Conservation Area and Provincial Park kiosks
- P’tit Train du Nord

## Program #5. Trail Clean-up Days

Getting students from local schools involved in exploring the trail and helping with litter clean ups and trail maintenance tasks can help create life-long trail users, while also educating about the benefits of trails, parks, and nature, and foster environmental stewardship. Many schools already do clean-up days and environmental improvement projects of their own school grounds, so expanding this practice to trail locations can be a simple extension of these activities – especially for schools located close to trails (i.e. Queen Victoria PS, St. Mary Catholic Elementary, I.E. Weldon SS and Jack Callaghan PS in Lindsay, Fenelon Falls SS in Fenelon Falls).

These activities can support many learning outcomes of the curriculum, and help schools achieve EcoSchools certification. Schools could be invited to “adopt” sections of trails, so they gain a greater sense of ownership over these sections, and the value of the overall trail network and their community’s natural heritage.

### Inspiration/examples:

- EcoSchools Canada
- National Clean Up Day
- Toronto Community Stewardship Program
- Adopt-a-trail program (i.e. Friends of Algonquin Park, Quinte Conservation)

## Program #6. Rental Offerings

Providing rental offerings at major trailheads or other locations adjacent to trails can help enrich the trail experience for users and attract new users who are interested in different trail activities but may not quite be ready to make a big investment in new equipment (bike, ATV, skis, etc.). Rental offerings can be of particular benefit for tourists, who may not want to transport their own equipment on their trip or may not appreciate the trail opportunities available in Kawartha Lakes until they arrive. Rentals can also provide an opportunity for trail users to try different types of bikes and micromobility types, such as e-bikes, cargo bikes, or e-scooters. Rental services can also grow all-season trail use by offering Nordic skis, snowshoes, or fat bikes to borrow.

Currently, there is a Community Bike Share service operating in Fenelon Falls (along the VRT) and Bobcaygeon, coordinated by Kawartha Works Community Co-operative, with ten bikes in each location that are available to rent from spring through the summer and into fall, accessible via a smart phone app for half-hour increments. Such a service could be expanded to additional trail locations, using a similar model.

Alternately, KRCA or another organization could provide longer-term rentals of bikes or other equipment, such as cross country skis, like many other conservation areas and other parks across Ontario. Another model would be to invite local businesses that sell bikes, ATVs, or other equipment to set up temporary booths that allow people to test-ride or borrow equipment, while also promoting their businesses.

**Inspiration/examples:**

- Kawartha Works Community Co-operative Bike Share (Fenelon Falls & Bobcaygeon)
- Conservation area equipment rentals (i.e. Albion Hills, Terra Cotta, etc.)
- Township of Algonquin Highlands, Frost Centre





## 3.0 Trail Action Plan

The TMPU is intended to be implemented over the course of a 20+ year horizon. The TMPU identifies a series of recommendations that have been designed to achieve the City's trail vision and principles (identified in Chapter 1.0).

An action plan has been developed for the City of Kawartha Lakes to support the implementation of recommendations through various actions to achieve desired outcomes.

Effective and successful implementation requires:

1. A blueprint or roadmap identifying when, why, and how the components of the plan are to be implemented.
2. Clarity regarding the expected steps and processes that need to be undertaken to move forward with the implementation of plan recommendations.
3. Continuous day-to-day coordination and monitoring of trail issues, opportunities, and initiatives.
4. Internal and external capacity building and collaboration to fulfill recommendation requirements.
5. Dedicated funding to appropriately support capital and operating costs associated with the plan.
6. Sufficient policy support to embed trail planning and design into other service and infrastructure provisions.
7. Evaluation and adaptation to reflect challenges and lessons learned that emerge and changing contexts.

For the purposes of the TMPU, a phase-based approach has been used for the purposes of strategic implementation. Implementation is assumed to be initiated in the year 2023 with three horizons:

- **Short term** indicates the first 5 years between 2023 and 2028.
- **Medium term** is the 6-to-15-year horizon between 2029 to 2038.
- **Long term** is the 16-to-20 year horizon from 2039 and beyond.



Each proposed project has been phased and other strategy recommendations prioritized. The identification of project phasing takes into consideration the overall complexity of the project relative to the community need and overall interest. It was informed by detailed discussions with City staff as well as public and stakeholder input.

### *What were some of the action plan assumptions?*



- The City's Parks and Recreation division will remain the lead for all trail planning, design, and construction and will undertake the necessary coordination with other City departments.
- Costing was developed at the master plan level based on an accepted series of unit costs for trail projects and improvements. The costs will require additional review and confirmation when a project proceeds to implementation.
- While new sources of trail related funding are being identified, the City is still encouraged to leverage opportunities for special projects to support the implementation of proposed projects.
- Additional funding will be required beyond what is available from the City. Formal agreements with partner stakeholders will be required to ensure the necessary support is provided by those using / benefitting from the trails.
- Education and outreach is not historically led by the City but is something that City staff will proactively coordinate with input from key stakeholders such as Tourism Kawartha.
- Recommendations identified within the TMPU have budget impacts beyond the City's Parks and Recreation division. Where possible, we have identified those impacts and what may need to be required in terms of annual budget assumptions.
- Monitoring and evaluation requires a comprehensive set of data regarding the City's trail projects as well as trail use. Working with Planning and Development to acquire and manage data will be integral to understanding successes and lessons learned.
- Enforcement will heavily influence the success of the trail plan especially in locations where there are user or use restrictions. On-going and coordinated documentation and enforcement infractions as well as a more robust enforcement program at key points in the year is required.

It is important to acknowledge that **an action plan is most effective if it is flexible and adaptable**. The information contained within Chapter 3.0 is intended to be used as a guide by City staff and its partners and adapted if new information emerges or if, through lessons learned, adaptation is needed to ensure effective implementation can be achieved.

## 3.1 Implementation and Management

### Implementation and Management refers to...

The various tools and tactics that are designed specifically for Kawartha Lakes to support City staff and its partners with the day-to-day coordination of trail related projects, recommendations, and initiatives. It guides process and practice through appropriate capacity building and clear communication and coordination.

	Recommendation	Timeline
	<b>Recommendation #1</b>	The Parks and Recreation Division will work with the Development Services Department and Engineering and Corporate Assets Department to coordinate the implementation of the trails plan update with complementary projects such as the Active Transportation Master Plan.
	<b>Recommendation #2</b>	The trail phasing and priorities will be reviewed on an annual basis to determine which projects are to proceed to implementation. Status updates and project recommendations will be summarized in an annual report to Council.
	<b>Recommendation #3</b>	A dedicated staff person should be identified to support the implementation of the trail plan update starting with 1.0 FTE (full-time equivalent) and shifting to 1.5-2 FTE based on future assessment of need.
	<b>Recommendation #4</b>	Signage and enforcement by Municipal Law Enforcement staff are to be enhanced in locations where there is restricted access by specific users.
	<b>Recommendation #5</b>	Management agreements are to be developed for partnerships between the municipality and trail user organizations for trail management projects or where user specific design is implemented.
	<b>Recommendation #6</b>	Land acquisition, encroachment, and/or easement requirements to accommodate new trail development or trail improvements are to be reviewed and studied as a project proceeds with implementation.



### 3.1.1 Phasing and Priorities

The prioritization and phasing of the various recommended projects provides the City with a blueprint for project implementation. A recommended phase (based on the horizons noted on page 66) for potential project implementation was identified based on project complexity and community need/interest (considering both public interest and municipal priorities). **Table 28** provides an overview of how the project phasing was identified based on these considerations.

Community Need	Complexity		
	High Complexity	Moderate Complexity	Low Complexity
*community need is determined by the amount of input received from engagement or input from staff	Considerable work needed to address physical concerns or issues	Interventions / projects may require some context confirmation prior to design	Can proceed immediately to design and construction
High Community Need			
Moderate Community Need			
Low Community Need			

**Table 28. Overview of Project Phasing Assessment**

The assessments noted above are not prescriptive. To ensure that project costs are appropriate for the City relative to the phasing horizon, a final review of project phasing was completed. A detailed overview of the phasing assessment and recommendations has been prepared and provided to City staff. A summary of proposed projects by phase is provided on the following pages.

## Short-term Projects

Focus Area #	Project #	Project Description	Length
1	3	Amenity improvements to VRT	2.8 km
1	5	Signage improvement for trailhead at Monck Rd. and ski trails	N/A
1	6	Signage improvement for trailhead at Monck Rd. and Machonachie Trail	N/A
1	7	Signage improvement to trailhead at Pinery Road and Machonachie Trail	N/A
1	8	Signage improvements to trailhead at Pinery Rd. and Millenium Trail	N/A
1	9	Signage improvements to trailhead at Millenium Trail	N/A
1	10	Signage improvements to trailhead at VRT in Kinmount	N/A
2	1	Motorized by-pass	9 km
2	2	Regulatory and wayfinding signage at trailhead along VRT at Garnet Graham Park	N/A
2	3	Regulatory and wayfinding signage at trailhead along VRT at Northline Rd.	N/A
2	4	Regulatory signage at gates along trail from Garnet Graham Park to Northline Rd.	8 km
3	1	Expanded staging area at Superior Road	N/A
3	2	Improved regulatory and wayfinding signage to and from the staging area	5 km
4	4	Improved regulatory signage at Hyler Line	N/A
4	5	Improved regulatory signage at Schell Line	N/A
4	6	Improved regulatory/wayfinding signage at VRT	N/A
4	7	Improved regulatory signage at County Rd. 121	N/A

Kawartha Lakes Trails Master Plan Update  
Master Plan Report . Final

Focus Area #	Project #	Project Description	Length
4	8	Improved regulatory signage at Ledge Hill Rd.	N/A
5	1	Improved signage and wayfinding to VRT Summer Route	2 km
6	3	New staging area at Thunder-bridge Rd. and Angeline St. N.	N/A
6	4	Trailhead improvements at VRT access at Thunder Bridge Rd.	N/A
6	6	New trailhead at KTCT and VRT intersection	N/A
6	7	New staging area at KTCT and VRT intersection	N/A
7	1	New trail connecting Wilderness Park and Cedartree Lane	400 m
7	2	New trail connecting Forbert Pool/Riverview Park	800 m
7	3	Improved wayfinding signage	N/A
8	1	Condition improvements to existing trail	2 km
8	3	Trailhead improvements at Peace Rd./Cowan's Bay	N/A
8	4	Signage improvements at Peace Rd. trailhead	N/A
8	5	Signage improvements at Cowan's Bay subdivision trailhead	N/A
8	8	New rest areas along trail	4 km
8	9	New wayfinding signage along trail	4 km
9	1	New amenities along trail – pump track	N/A
10	3	Improved regulatory and wayfinding signage	150 m
11	1	Trail crossing improvements at Angeline St. S. in Lindsay	N/A

## Medium-term Projects

Focus Area #	Project #	Project Description	Length
1	1	Maconachie trail condition upgrade	8.5 km
2	5	Active route signage at gates along trail from Garnet Graham Park to Northline Rd.	5 km
4	1	Condition improvement to 3rd Concession of Somerville	5 km
6	1	New trail in Pioneer Park	800 m
8	7	Condition improvements to bridge	N/A
9	2	New staging area	N/A
9	3	Regulatory signage at entrance to Forest Tract	N/A
9	4	Improvements to existing trail condition	TBD
9	5	New trailhead signage at entrance to Forest Tract	N/A
10	1	Improved at-grade crossing conditions of VRT at Ski Hill Rd.	N/A



## Long-term Projects

Focus Area #	Project #	Project Description	Length
1	2	Marsh trail condition upgrade	3 km
1	4	Staging area improvement for trailhead at Monck Rd. and Pinery Rd.	N/A
2	6	New motorized trail along unopened road allowance	2 km
2	7	Trail widening of the VRT from Garnet Graham Park to north of Ripple St.	2-3 km
4	2	New motorized trail through unopened road allowance between Hyler Line and County Rd. 49	5 km
4	3	Improved wayfinding signage	10 km
6	2	New trail connecting Logie Park to VRT/KTCT	800 m
6	5	New off-street trail link connecting Rotary Trail and McDonnell Park	200 m
8	2	Improve and formalize paths connecting into Cowan's Bay subdivision	1 km
8	6	New switchback	N/A
8	10	New trail connection to Pigeon Lake	400 m
10	2	New staging area along Ski Hill Rd.	N/A
10	4	New trail development in unopened road allowance connecting to VRT	50 m
10	5	New trail development in unopened road allowance connecting to VRT	750 m

The preliminary phasing of proposed trail projects reflects the current state of trails and the input gathered over the course of the project process. As the City proceeds with implementation it is possible that priorities may change, or additional funding may become available, which can change project phasing.

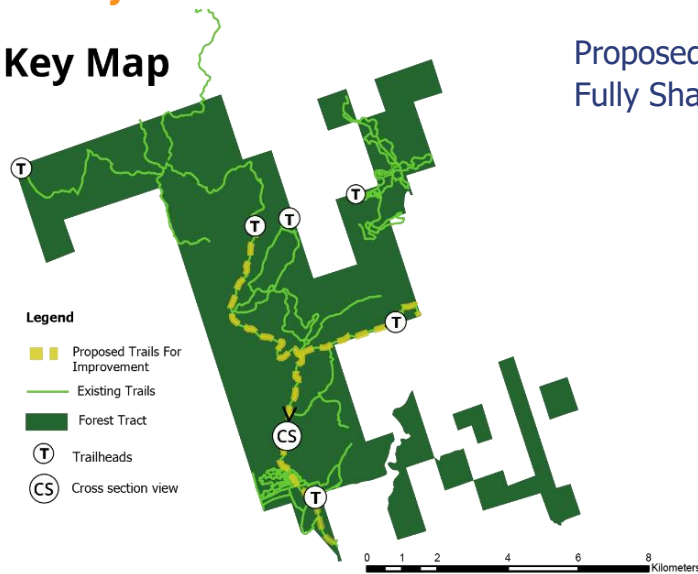
The City should use the detailed focus area and project information resource to support the implementation of **Implementation and Management Recommendation #2**. This resource is intended to be used as an implementation management database along with the Trails GIS database. As projects proceed to implementation or as conditions change, the implementation management and GIS databases are to be updated. These successes and adaptations should be reflected in future annual reports to Council.

In addition to the proposed phasing, five priority projects were identified which reflect projects of critical importance to the City based on staff or stakeholder input, trail need, or alignment with other municipal projects or initiatives. Since these projects are priority, the majority have been timed for the short to medium term. Additional details have been provided for these five projects to support a more efficient implementation.



## Priority Focus Area #1. Somerville Forest Tract Improvements

### Key Map



Proposed improvements to the Maconachie and Marsh Trail based on Fully Shared Use Corridor trail classification.





Priority Focus Area #2. East Cameron Lake Motorized By-pass

Though referenced as the motorized by-pass, this priority refers to the improvement and restricted use of the existing section of the Victoria Rail Trail along East Cameron Lake and the use of an on-road by-pass to accommodate motorized vehicles (interim).



Potential improved gate options for restricted access along trail.

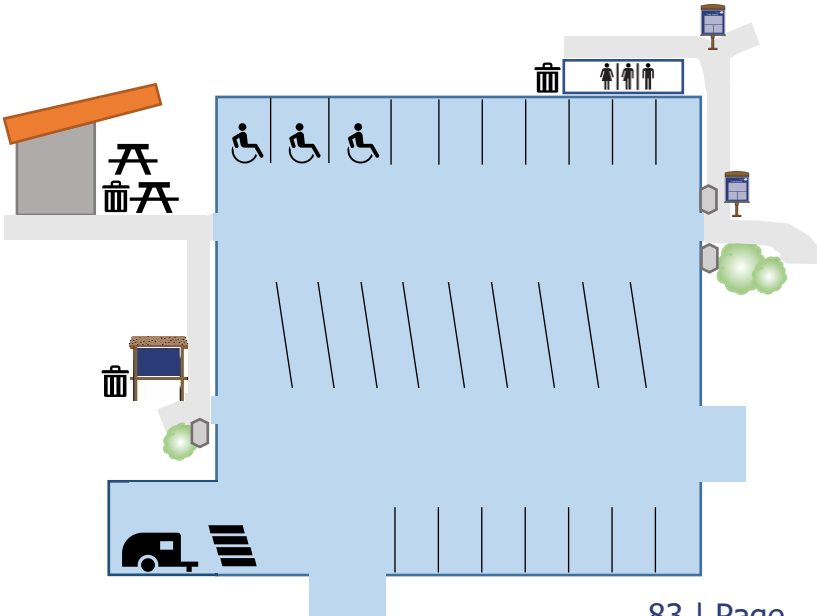




Priority Focus Area #3. Superior Road Staging Area



Proposed  
staging area  
classification:  
Major Motorized  
Staging Area

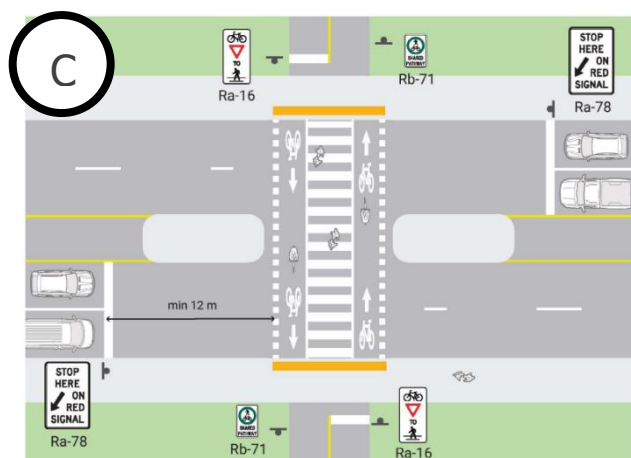


## Priority Focus Area #4. Staging area at Dobson Street in Lindsay

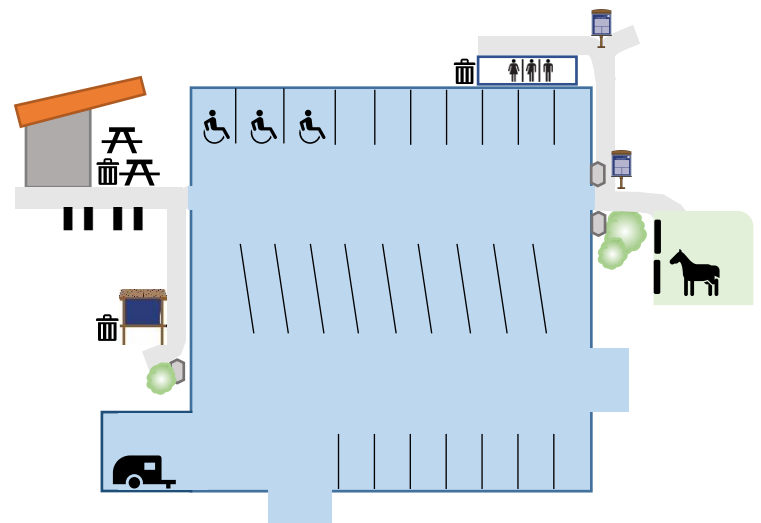
(Connecting Victoria Rail Trail and Kawartha Trans Canada Trail)



Proposed staging area  
classification: Shared Major  
Staging Area



Crossing design guidance from OTM Book 18  
mid-block pedestrian crossover





## Priority Focus Area #5. Pontypool Forest Tract Pump Park



### 3.1.2 Implementation Processes

Putting the TMPU into action involves the implementation of capital initiatives in the form of trail infrastructure projects (Section 3.1) and education and outreach initiatives (Section 2.3).

Once the TMPU has been adopted, the City will be responsible for proceeding with the necessary next steps to support implementation. To support City staff and their partners (detailed in Section 3.1.4), implementation processes have been identified for the various trail projects, education, and outreach initiatives, as well as potential new opportunities as they arise. These processes are outlined in the following sections.

#### Infrastructure Implementation Process

The City of Kawartha Lakes TMPU identifies four (4) types of trail projects which will proceed towards implementation once the plan has been adopted. A series of infrastructure related implementation steps have been identified in [Table 29](#).

Within the four types of projects there are varying degrees of complexity including environmental impact, scale, and scope of project, etc. As such, not all the implementation steps may apply. The appropriate applicability has been identified for the City's consideration once a project proceeds with implementation dependent on the project type.

Step	Description	Applicability
Step 1. Planning	<ul style="list-style-type: none"><li>Review TMPU projects based on planned capital projects</li><li>As necessary, prepare report to Council for information and/or endorsement</li></ul>	All projects
Step 2. Site Review	<ul style="list-style-type: none"><li>Undertake an additional review of site conditions</li><li>Collect site specific condition information and prepare functional design</li></ul>	All projects
Step 3. Preliminary Design	<ul style="list-style-type: none"><li>Prepare a preliminary design concept based on TMPU recommendations, including applicable design guidelines</li></ul>	New Trail Trail Improvement



Step	Description	Applicability
<b>Step 4. Consultation</b>	<ul style="list-style-type: none"> <li>Present preliminary design concept to residents and other relevant stakeholders to gather input</li> <li>Engagement to be undertaken with residents within 1km radius of the project location as well as with primary trail stakeholders</li> <li>Public meeting not necessary, communication and information gathering only</li> </ul>	<p>All projects</p> <p>*optional for comfort and management</p>
<b>Step 5. Detailed Design</b>	<ul style="list-style-type: none"> <li>Refine and prepare detailed design concept of preferred solution, reflecting any necessary input from consultation activities</li> </ul>	<p>New Trail</p> <p>Trail Improvement</p>
<b>Step 6. Schedule</b>	<ul style="list-style-type: none"> <li>Identify the preferred schedule</li> <li>Identify funding sources and allocate budget</li> <li>Undertake additional consultation as needed / update residents within 1 km radius</li> </ul>	<p>All projects</p>
<b>Step 7. Tender</b>	<ul style="list-style-type: none"> <li>Prepare and release public tender</li> <li>Determine and award to preferred candidate</li> </ul>	<p>All projects</p>
<b>Step 8. Construction</b>	<ul style="list-style-type: none"> <li>Construction administration and site inspection throughout completion of the project</li> </ul>	<p>All projects</p>

Table 29. Overview of Proposed Infrastructure Implementation Process

## Education and Outreach Implementation Process

Potential education and outreach programs have been identified in section 2.3. Programs have not yet been phased. The intent is for the City to proceed with the implementation of education and outreach initiatives related to trails by reviewing the potential programs and working with staff, stakeholders, and partners to identify and facilitate implementation. **Table 30** provides an overview of the various implementation steps once a program has been confirmed for implementation.

Step	Description
<b>Step 1. Behaviour</b>	<ul style="list-style-type: none"> <li>Identify the behaviour that needs to be influenced / desired outcome of the program, building on TMPU priorities and objectives</li> </ul>
<b>Step 2. Audience</b>	<ul style="list-style-type: none"> <li>Identify the preferred audience(s) to be targeted, including consideration of socio-demographics and trail user groups</li> <li>Confirm audiences based on trail stakeholder groups identified and engaged as part of the TMPU</li> </ul>
<b>Step 3. Barriers</b>	<ul style="list-style-type: none"> <li>Identify potential limitations or barriers people face in adopting the desired behaviour, and position solutions relative to the program goals and objectives</li> </ul>
<b>Step 4. Placement</b>	<ul style="list-style-type: none"> <li>Determine a potential pilot location / approach for implementation and initial distribution of materials / information / activities</li> </ul>
<b>Step 5. Work Plan</b>	<ul style="list-style-type: none"> <li>Prepare a work plan for the design of the program, including City staff capacity, external partner capacity, materials / collateral, media and communication, required equipment, and evaluation metrics</li> <li>Identify the preferred program schedule / timeline</li> <li>Identify funding sources and allocate budget</li> </ul>
<b>Step 6. Implementation</b>	<ul style="list-style-type: none"> <li>Implement the program</li> </ul>
<b>Step 7. Evaluation</b>	<ul style="list-style-type: none"> <li>Review and analyse previously established quantitative and qualitative metrics to evaluate the success of the program</li> <li>Undertake engagement with select stakeholders to gather input</li> <li>Identify lessons learned and improvements</li> <li>Modify implementation approach based on input</li> </ul>

**Table 30. Overview of Education and Outreach Implementation Process**

## New Opportunity Implementation Process

As noted in Section 2.1, there may be trail connection opportunities and trail improvements that were discussed as part of the TMPU process but not identified as part of the proposed trail projects. There may also be new trail opportunities that emerge as part of future discussions with residents and stakeholders that the City was not aware of at the time of the TMPU development. Along with the proposed trail projects, these opportunities should be monitored and, as appropriate, explored for potential inclusion as part of the TMPU infrastructure recommendations.

As these opportunities arise, a process for review and consideration has been identified, and adapted from the Guidelines and Best Practices for the Design, Construction and Maintenance of Sustainable Trails for all Ontarians. The process is outlined in [Table 31](#).

Step	Description
<b>Step 1. Background Review</b>	<ul style="list-style-type: none"> <li>Review any relevant information regarding the specific project site, including information on land ownership, potential environmental impacts, or other planning considerations that could impact feasibility</li> </ul>
<b>Step 2. Site Visit</b>	<ul style="list-style-type: none"> <li>Undertake a field review, including one or two visits to the site to document area conditions</li> </ul>
<b>Step 3. Identify Potential Improvement</b>	<ul style="list-style-type: none"> <li>Identify a preliminary route alignment (if a new trail has been identified) or other improvements based on the project need</li> </ul>
<b>Step 4. Confirm Project Details</b>	<ul style="list-style-type: none"> <li>Determine the appropriate project type as per the overview noted in Section 3.1.1</li> <li>For new trail corridors/links, identify the proposed trail classification</li> </ul>
<b>Step 5. Mark Improvements</b>	<ul style="list-style-type: none"> <li>Revisit the site to determine where and what may be needed in terms of improvement locations</li> </ul>

Step	Description
<b>Step 6. Secure Land Needed</b>	<ul style="list-style-type: none"> <li>For those improvements where some of all lands are not currently under the City's ownership, further exploration is needed into what planning tools would be needed to secure necessary lands, i.e. land acquisition, easement or encroachment agreements</li> <li>Confirm preferred approach</li> <li>Note: This step may not be required for all potential new projects</li> </ul>
<b>Step 7. Develop Work Plan</b>	<ul style="list-style-type: none"> <li>Prepare a work plan for the design of the program including City staff capacity, external partner capacity, materials / collateral, media and communication and other equipment not within stock at the City</li> <li>Identify the preferred schedule</li> <li>Identify funding sources and allocate budget</li> </ul>
<p><b>*Once steps 1 through 7 have been completed, proceed with Steps 3 onward of the Infrastructure Implementation Process (Table 16)</b></p>	

**Table 31. Proposed New Trail Opportunity Consideration and Implementation Process**

For any new trail opportunity that emerges, the City will need to review and revise the TMPU's supporting documents, including the GIS database and implementation management database. It is critical that any additions or changes to the proposed trail projects be reflected in the TMPU tools and documentation.

As noted in Step 7 and identified in **Implementation and Management Recommendation #6**, the City of Kawartha Lakes may have new trail opportunities where land acquisition, easements or encroachments may be required. However, as of the completion of the TMPU, there are no proposed trail projects noted in the TMPU that would require any of these planning implementation tools.

An easement, land acquisition or encroachment agreement are tools that can be used by the City of Kawartha Lakes to ensure that the appropriate amount of land is available to accommodate the desired trail alignment and trail design based on Step 3 and 4 of the process noted above.



### 3.1.3 Internal Coordination

Implementation of the TMPU will require a considerable amount of coordination efforts among staff and different departments within the City of Kawartha Lakes. As part of the development of the TMPU, City staff have already demonstrated continued commitment to enhancing trail planning, design, implementation, promotion, and education in the years to come. The review of the implementation to date of the 2006 Trails Master Plan indicated a strong need for greater clarity around the roles and responsibilities of those involved in TMPU implementation and trail related initiatives.

Gaps exist within current roles and responsibilities, which has resulted in trail projects losing momentum and being implemented more slowly when compared with other municipal priorities and projects. As part of the development of the TMPU, greater clarity is intended to be provided on specific internal City staff roles and responsibilities. **Table 32** provides an overview of the anticipated roles or responsibilities that are recommended for the various departments in the City of Kawartha Lakes based on the recommendations found within the TMPU.

Department	Role
Office of the CAO	<ul style="list-style-type: none"><li>• Municipal enforcement as per the updated bylaws/regulations as well as frequency of practice to be undertaken by Enforcement in partnership with Community Services</li></ul>
Community Services	<ul style="list-style-type: none"><li>• Division of Parks and Recreation will lead the implementation of the TMPU as per implementation and Management Recommendation #1</li><li>• One additional FTE position will be created to lead the implementation of the TMPU, reporting to the Capital and Special Projects Supervisor</li></ul>
Corporate Services	<ul style="list-style-type: none"><li>• Provide guidance on municipally consistent communications and marketing for any trail related promotional materials</li><li>• Provide IT support for the integration of the trails database into wider municipal asset management and data coordination.</li></ul>

Department	Role
Development Services	<ul style="list-style-type: none"> <li>Review development applications to encourage provision of infrastructure to support trail connections, amenities, and recreational mobility, and ensure designs are consistent with TMPU guidance</li> <li>Provide land use and development information needed for trail improvement projects</li> <li>For Kawartha Tourism as part of Economic Development, the following roles have been identified: <ul style="list-style-type: none"> <li>Support maintenance and updating of trail information, including through trails and related content at <a href="http://explorekawarthalakes.ca">explorekawarthalakes.ca</a></li> <li>Support Education and Outreach programs, and lead/coordinate programs as appropriate</li> </ul> </li> </ul>
Public Works	<ul style="list-style-type: none"> <li>Implement trail crossing infrastructure and on-road links for roads under City jurisdiction</li> <li>Provide information and guidance regarding road operations and water/wastewater utility infrastructure to support trail improvement projects</li> <li>Support Education and Outreach programs, as appropriate</li> </ul>

**Table 32. Summary of Proposed Internal Roles and Responsibilities**

As noted above, **Implementation and Management Recommendation #3** reflects the importance of providing funding for at least one (1) additional FTE to specifically support the implementation of the TMPU. The ongoing success and monitoring of the plan's implementation will hinge on this role being put in place in the year 2023 or 2024. The following is an overview of anticipated roles and responsibilities of this staff member based on the recommendations outlined in the TMPU:

- Coordinate and advance trail projects, ensuring they follow trail design guidance, standards, and best practices as they evolve
- Ensure trail maintenance practices are carried out
- Coordinate and advance education and outreach programming
- Monitor trail usage and conditions to support trail projects, programs, and maintenance implementation
- Maintain and strengthen internal coordination and external partnerships, and leverage these partnerships to pursue staff/volunteer and financial resources to support trail projects and programs, including pursuing grant and funding opportunities
- Ensure new developments are leveraged for trail improvements

### 3.1.4 Partnerships

Equally important to the internal roles and responsibilities noted in Section 3.1.3 are partnerships with external stakeholders and technical agencies, who have supported the development of the TMPU and who are expected to have a role in aspects of its implementation. It is important to continually maintain and strengthen these current relationships, as well as explore potential future partnerships from new stakeholders who may be able to provide additional support to trails in Kawartha Lakes in the future.

The City of Kawartha Lakes acknowledges the ongoing efforts of major partners who have professional and personal interests in the success of the TMPU. An overview of each of the partners engaged through the TMPU process was provided to City staff. This document should be used as an ongoing resource for stakeholder management and future engagement related to the implementation of the TMPU.

The recommendations included within the TMPU indicate a need for more clarity around specific roles for the primary stakeholder groups/agencies relative to supporting the City in TMPU implementation. When referring to primary stakeholder groups and agencies, the intent is to highlight those entities that could influence some outcomes of the plan or who – through their membership and use – could be candidates for project/program management and/or operational support or funding. In some cases, there are agreements that have historically been in place to formalize partnerships. These agreements may need to be reviewed and revised and new agreements put in place as per **Implementation and Management Recommendation #5**.

For the purposes of the City of Kawartha Lakes TMPU, the following stakeholder groups/agencies have been included, although additional stakeholders currently and may in the future be involved in trail projects in Kawartha Lakes:

- Ministry of Transportation Ontario
- Kawartha Trans Canada Trail Association
- Kawartha Lakes Snowmobile Club
- Kawartha ATV Association
- Kawartha Green Trails Alliance
- Environmental Action Bobcaygeon
- KRCA
- Haliburton, Kawartha, Pine Ridge District Health Unit
- Local School Boards

## Kawartha Lakes Trails Master Plan Update

### Master Plan Report . Final

To help guide future decision-making regarding partnership engagement as well as agreement development, **Table 33** has been prepared. Within the table the “outreach” column refers to the frequency that these groups are recommended to be engaged with by the City to facilitate/support their identified roles. The recommendations provided in the table are meant to be used as a guide and not as a prescriptive commitment to specific meetings with each group.

It may be in the best interest of the City to host a series of meetings annually (towards the end of the year) with applicable trail stakeholders to review annual experiences and discuss opportunities for the following year in addition to strategic outreach as projects go forward to implementation. Consideration will be given to the input provided as part of the City’s adapted approach to trail planning, design, implementation, and maintenance.

Partner	Role	Outreach	Funding Source?	Agreement Needed
<b>Environmental Action Bobcaygeon</b>	<ul style="list-style-type: none"> <li>Resources and coordination to support maintenance, and education and outreach programs</li> <li>Engagement on local trail initiatives</li> </ul>	Once / year	N	N
<b>Haliburton, Kawartha, Pine Ridge District Health Unit</b>	<ul style="list-style-type: none"> <li>Coordination and support for education and outreach initiatives</li> </ul>	Once / year	Y	N
<b>Kawartha ATV Association</b>	<ul style="list-style-type: none"> <li>Resources and coordination for trail projects, maintenance, and education and outreach</li> <li>Engagement on local trail initiatives</li> </ul>	Once / year or by invite to organization meetings	Y	Y
<b>KRCA</b>	<ul style="list-style-type: none"> <li>Resources and coordination to support trail projects, maintenance, education and outreach</li> <li>Permissions/coordination for new trail connections on Conservation area lands</li> </ul>	Dependent on trail initiative and location	Y	Y



Partner	Role	Outreach	Funding Source?	Agreement Needed
Kawartha Green Trails Alliance	<ul style="list-style-type: none"> <li>Resources and coordination for trail projects, maintenance, education, and outreach</li> <li>Engagement on local trail initiatives</li> </ul>	Once / year	N	N
Kawartha Lakes Snowmobile Club	<ul style="list-style-type: none"> <li>Resources and coordination to support trail projects, maintenance, education, and outreach programs</li> <li>Engagement on local trail initiatives</li> </ul>	Bi-Annually	Y	Y
Kawartha Trans Canada Trail	<ul style="list-style-type: none"> <li>Resources and coordination to support trail projects, maintenance, education and outreach programs</li> <li>Engagement on local trail initiatives</li> </ul>	Existing Meetings as per Schedule	N	Y
Local School Boards	<ul style="list-style-type: none"> <li>Coordination/support for education and outreach initiatives</li> <li>Permissions for new trail connections as landowner</li> </ul>	Dependent on trail initiative and location	N	N
Ontario Ministry of Transportation	<ul style="list-style-type: none"> <li>Addressing issues where trails meet roads/highways under provincial jurisdiction</li> <li>Providing support for road safety and cycling</li> </ul>	Dependent on trail location	Y	Y
Ontario Provincial Police	<ul style="list-style-type: none"> <li>Enforcement</li> <li>Coordination/support for education and outreach initiatives</li> </ul>	Quarterly	N	N

Table 33. Overview of Partnership Opportunities & Expectations

### 3.1.5 Policies

The way in which a community grows, and changes is primarily driven by policy directions adopted and implemented by government, particularly at the municipal level. As noted in Section 1.3.3, a comprehensive policy review was completed as part of the initial stages of the TMPU process. The policy review process indicated a relatively strong level of support for trails and recreation, but with some gaps and opportunities for improvement for enhancement to ensure that there is alignment within higher level policies, such as the Official Plan. As per **Implementation and Management Recommendation #4**, the City is encouraged to use the information found within Section 2.1 – specifically the proposed trail projects – as a schedule in future updates to the City’s Official Plan. Similarly, there are other recommendations found within the TMPU which will have an impact on not only municipal policies, but also planning and implementation tools such as municipal by-laws, design standards, and guidelines.

For the City’s consideration, the following is a high-level overview of specific policy considerations and enhancements that should be considered for implementation/ adoption by the City of Kawartha Lakes related to trail support.

#### City of Kawartha Lakes Official Plan

- Adopt/incorporate the TMPU vision and objectives and/or integrate key themes into guiding principles that reflect planning concepts in alignment with the TMPU such as recreational mobility and the principles of all ages and abilities (AAA).
- Preferably, include a new section in the Official Plan which speaks to trails under Part D, section 28, Infrastructure and Service policies, with reference made to the guidance found in the TMPU, and inclusion of the focus areas and projects as an additional schedule to the official plan.
- If a dedicated section related to trails is not achievable, updates are recommended to be made to existing sections such as:
  - Section 7. Community Facilities, specifically 7.2(i) to refer to the proposed trail routing and alignment noted in the trails master plan update as a means of enhancing linear multi-purpose trail systems.
  - Section 8. Open Space, Parks, and Crown Land specifically 8.2(C) to refer to the TMPU recommendations and trail classifications.
  - Section 34.13 Parks and their appropriate use in the future development of recreational trails relative to the improvements identified in the TMPU, replacing reference made to the development of a trails and bikeways master plan and expanding the opportunities to speak more to trails and AT to achieve recreational as well as more utilitarian mobility.

- Acknowledge the role land-uses play in encouraging recreational trips, with an emphasis on parkland development and recreational spaces as well as built-up areas.
- Review the area-specific official plan documents to ensure that there is sufficient support for trails and recreational mobility. Where possible reference should be made to the TMPU and any impacts to future trail development within specific areas.

## Transportation Master Plan

- Review and revise section 5.1 of the 2012 Transportation Master Plan to reflect updates to the trail principles and priorities as identified in the TMPU. Similar to the OP, it is recommended that the TMPU's proposed projects be adopted as a schedule as part of future updates to the Transportation Master Plan.

## Secondary Plans

- Provide the proposed projects as identified within the TMPU to encourage developers to ensure future developments and secondary plan areas provide greater recreational mobility through trail improvements, localized amenity improvements, and land uses/destinations which encourage more active trips.
- Utilize the trail classifications identified within the TMPU to provide to developers as part of the secondary planning process to ensure that trail routes as part of parkland dedication or municipal connections are designed in a consistent manner.

## By-laws

- Continue to enhance and encourage trails and other recreational infrastructure as eligible projects under the Development Charges (DC) By-law.
- By-laws which speak specifically to trails include By-law 2007-107 A By-law to Regulate and Govern Trail Uses Along the Victoria Rail Trail Corridor in the City of Kawartha Lakes Section H, By-law 2006-147 A By-law to Regulate Public Parks and Facilities and By-law 2019-077 Regulation of ATVs, UTVs and ORV on Municipal Highways. All by-law documents have been reviewed in the context of the TMPU recommendations. The following are the recommended considerations identified for the City of Kawartha Lakes to ensure that the By-laws are reflective of the most up to date directions as per the TMPU.
  - The City should maintain these three by-law documents as By-law 2007-107 speaks specifically to the appropriate and regulated use of trails, By-law 2006-147 addresses the management and maintenance of trails through specifically park spaces, whereas By-law 2019-077 speaks to

where and how ATVs and ORVs are intended to be used throughout the City with a focus on municipal highways.

- By-law 2019-077 was recently amended to reflect the outcomes of the ORV/ATV taskforce based on the pilot project recommendations as refined on page 3 effective March 22, 2023. Through the TMPU, direction was provided to restrict the use of ORV/ATV along select portions of the VRT and where the classification of the trail is specifically designed for active use. When appropriate, the City should explore an update to:
  - Remove reference to Municipal Highways in the title to focus on providing guidance/regulation on the appropriate locations for ORV/ATV use throughout the City.
  - Section 2.0: Operation of ORVs to include new regulations:
    - 2.10 stating: "No person shall operate an ORV on municipal trails that indicate restricted use as per By-law 2007-107, specifically along sections of the Victoria Rail Trail."
    - 2.11 stating "No person shall operate an ORV on a municipal trail designed or identified as an active use trail as per the trails master plan."
  - If there is no interest in making the amendments, an alternate solution would be to update Section 5.0: Exemptions to include a new regulation 5.02 stating that "This By-law does not apply to those locations as per the Trails Master Plan update where ATVs/ORVs are restricted along sections of Victoria Rail Trail or where the trail linkage has been identified as shared trail classification".
- By-law 2007-107 was last amended on May 21, 2019 and speaks specifically to the governing of trail use along the Victoria Rail Trail. Upon review of the By-law, the following potential amendments/additions have been identified for the City's consideration:
  - General update of the By-law title to remove reference of "Along the Victoria Rail Trail Corridor" as the By-law is now intended to be used as the primary reference related to the governance of all trail use throughout the municipality. The amendments noted reflect this revised approach.
  - Recitals item #3. Revision – With the passing of the City of Kawartha Lakes Trails Master Plan Update, the Council of the Corporation of the City of Kawartha Lakes considers it appropriate to pass such a by-law to regulate and govern trail use for all municipally owned trail linkages.



- Section 1.01 Definitions – to be updated to reflect the definitions of trail classifications – active, shared and ORV/OHV – as well as E-Bikes
- Section 2.0: Acceptable Uses:
  - Update 2.01 – No person shall use the appropriate segments of the municipal trail system for non-motorized uses except for...
  - Update 2.02 – No person shall operate a motorized vehicle on appropriate segments of the municipal trail system except for...
  - New 2.04 – Non motorized trail use is permitted along municipal trails designated as active or shared trail classification.
  - New 2.05 – Motorized vehicles are permitted only along municipal trails designated as ORV/OHV classification.
  - New 2.06 – E-bikes are permitted to use municipal trails designated for active or shared use based on the acceptable definition of a motor with a maximum of 500 watts, a maximum assisted speed of 32 km/h, and a maximum weight of 120 kg with working pedals for human propulsion.
- Section 3.00: Uses Prohibited in Certain Areas
  - Update 3.01 to include new prohibited use along between Garnet Graham Park north to Northline Road
- Section 4.00: Road Route Access (ATV Only)
  - Update title to ORV/OHV
  - New 4.03 Fenelon Falls – North to Superior Road Trailhead – Colborne Street to County Road 121 continuing North to Superior Road Trailhead of VRTC
- Section 5.00: Season of Use Restriction & Section 6.00: General Provisions – to be updated to remove reference to the VRTC and replaced with general reference to municipal trail linkages
- Specific amendments to Section 6.00: General Provisions:
  - Removal of 6.06 as there is no longer a Kawartha Lakes Trails Committee
  - Revision to 6.07 to clarify reference to “their” and “it”

- By-law 2006-147 was most recently updated in September 2014 following the adoption of the original trails master plan but not reflecting subsequent changes to trail related impacts in the past almost 10 years. Upon review of the By-law, the following potential amendments/removals /additions have been identified for the City's consideration:
  - Recitals new item #3 - With the passing of the City of Kawartha Lakes Trails Master Plan Update, the Council of the Corporation of the City of Kawartha Lakes considers it appropriate to pass such a by-law to regulate and govern trail use for all municipally owned trail linkages found within parks and along or within municipally owned facilities.
  - Section 1.01 Definitions
    - "ATV" definition to be revised to reflect new definitions of ORV and OHV
    - "Off-road Motorcycle" to be revised to reference E-bikes with the acceptable definition of a bicycle with a motor with a maximum of 500 watts, a maximum assisted speed of 32 km/h, and a maximum weight of 120 kg with working pedals for human propulsion.
    - "Park or Facility" to be revised to remove reference to "trail"
    - New definition of "Trail" means linkages that are owned or controlled (including jointly controlled) by the City that are used for recreation and transportation purposes as guided by Municipal By-law 2007-107
    - New definition of "KTCT" means the Kawartha Trans Canada Trail.
  - Section 1.02 Interpretation Rules regulation (c ) to be updated to state "Where there is a conflict between this bylaw and Bylaw 2007-107 Regulate and Govern Trail Use, Bylaw 2007-107 shall prevail".
  - Section 2.0 Powers of Director
    - 2.01 Power (a) to be updated to include reference to trails
    - 2.01 Power (d) to be updated to state "designate areas for travel by ORV/OHV, e-bikes and other vehicles"
  - Section 4.00 to be generally updated to also reference trails as based on the revisions to definitions they are now considered a separate entity to parks and facilities.

- Section 5.00 Title to be updated to General Trails, Parks or Facility Regulations which will also need to be reflected throughout the remaining sub-sections where appropriate
  - 5.05 Hunting – the City may wish to consider the removal of reference to Somerville Forest Tract considering the desired /expected increased use of this area for trail use
  - 5.19 Horseback Riding – Additional context to be included – “Horseback riding along trails will be determined by the Director based on the applicable guidance and designation as identified through Bylaw 2007-107 and the Trails Master Plan Update.
  - 5.20 Cycling and Skating:
    - Update title to Cycling and Rolling
    - Statement revised to – Cycling and rolling (including inline skating, roller skating, skateboarding or other wheeled devices propelled by human power) are permitted along trails within Municipal Parks and Facilities as per Bylaw 2007-107. Those individuals cycling and rolling shall not
- Section 7.00 Motorized vehicles to be updated to include new item h) utilize motorized vehicles along sections of municipal trail that are identified as active use (as per the trails master plan update) or where restrictions have been identified as per Bylaw 2007-107
- The City may wish to reconsider the inclusion of Section 7.02 due to the nature of the updates to Bylaw 2007-107. If there is still interest in maintaining this regulation, two options are provided:
  - Option #1 – expand the regulation to include not just Somerville Forest but all other forest tracts within the municipality for consistency in application and designation
  - Option #2 – review the regulation in the context of updates to Bylaw 2007-107 and the TMPU including a new (a) stating “Motorized use of trails within the Somerville Forest Tact are to be consistent with the appropriate trail designations and directions as identified in Bylaw 2007-107 and the Trails Master Plan Update. Additional requirements include...” providing the existing list following

- Update the zoning by-law to address the provision of bicycle parking at major destinations within communities as well as staging areas. Additional details are to be provided in the City's Active Transportation Master Plan.

The information provided above is intended to be used to provide guidance on trail related improvements to land use and infrastructure related planning policy, functional plans, and implementation tools. There are numerous other strategic planning documents or initiatives that have been adopted by the City that could have an impact or influence on trail initiatives in the future including but not limited to:

- Municipal Accessibility Master Plan
- Healthy Environment Plan
- Growth Management Strategy
- Corporate Communications Strategy
- Destination Development Plan
- Community Safety and Well-being Plan

At this time, we are not recommending any changes be made to these documents. Parks and Recreation staff is, however, encouraged to work with those who are implementing these plans and strategies to understand how trails can help achieve wider municipal priorities.

### **What does the future of recreational mobility policy look like?**

In addition to the trail specific policy improvements noted above there are other emerging trends and applicable policy topics which reflect trail related priorities and principles or speak to complementary trail impact. **Table 34** includes an overview of these policy topics and policy enhancements for future consideration.



Emerging Policy Topic	Considerations	Potential Enhancements
<b>E-bikes &amp; micromobility</b>	E-bikes can blur the lines between traditional bicycles and motorized bikes. Some provincial rules are in place to differentiate between different types but deciding where they are appropriate and enforcing rules can be a challenge.	<ul style="list-style-type: none"> <li>• Monitor evolving best practices</li> <li>• Consider modifications to municipal policies and by-laws to clarify permissions and restrictions of different types of e-bikes/micromobility in different locations.</li> <li>• Consider how e-bikes/micromobility can be accommodated in the design of trail infrastructure</li> <li>• Engage in targeted education campaigns to explain e-bike and micromobility rules and etiquette</li> </ul>
<b>Liability</b>	If multi-use trail facilities are improperly designed, constructed, or maintained, the City may be exposed to some level of liability. Many aspects of the TMPU are meant to mitigate liability, including design and maintenance recommendations – highlighting the importance of plan implementation.	<ul style="list-style-type: none"> <li>• Ensure provincial/national design guidelines and applicable laws and regulations are followed for trail designs, especially as they evolve in the future.</li> <li>• Monitor trails through regular patrols and document conditions.</li> <li>• Increase public awareness of user rights and obligations.</li> <li>• Maintain proper insurance coverage.</li> </ul>

Emerging Policy Topic	Considerations	Potential Enhancements
<b>New Development</b>	When a new development is proposed, designs should include aspects that support trails and recreational mobility, including projects in the TMPU, and which are consistent with the TMPU's design guidance.	<ul style="list-style-type: none"> <li>Review the Site Plan approvals process as needed to reflect the importance of implementing trail projects and ensuring appropriate design of trail links and amenities.</li> <li>Leverage the development approval process to direct investments towards the trail network, i.e., via development charges, parkland cash-in-lieu.</li> </ul>
<b>Acquisition</b>	During trail improvement implementation, the need for land acquisition may be identified. This may result in a significant increase in project implementation cost and complexity that can either delay or result in a significant rethinking of a project's design.	<ul style="list-style-type: none"> <li>Endeavor to use existing public lands as much as possible for trail projects.</li> <li>Consider pursuing landowner agreements (encroachments, easements) for trails rather than purchasing the land outright</li> <li>Ensure coordination among internal and external stakeholders to ensure new developments and other infrastructure projects do not use land that has potential for trail links.</li> </ul>

Table 34. Overview of Additional Policy Topics and Considerations








## 3.2 Costing and Funding

### Costing and funding refers to...

The master plan level costing that aims to provide a preliminary assessment of the anticipated capital or operating costs of projects to facilitate implementation and management and the sources of monies that will be used to fund those costs.

#### Recommendation

#### Timeline

	<b>Recommendation #1</b>	Within the Parks and Recreation Division capital budget a line item of \$500,000 be identified for the implementation of trail projects in addition to exploring external funding opportunities i.e. federal, provincial, local, or private.	
	<b>Recommendation #2</b>	Within the Parks and Recreation Division operating budget a line item of \$50,000 be identified to facilitate the implementation of the trail related education and encouragement strategies with the potential to increase to \$100,000.	
	<b>Recommendation #3</b>	Within the Parks and Recreation Division operations budget, the line item for maintenance will be increased to \$200,000 with appropriate increases to the budget per annum based on km implemented.	
	<b>Recommendation #4</b>	Operational costs are to be reviewed and refined on an annual basis to ensure that trail maintenance (seasonal and winter included) is appropriately supported to meet the expectations of the master plan update.	
	<b>Recommendation #5</b>	An annual review of external funding opportunities should be undertaken to explore potential sources of public funding based on the recommended sources as identified in the trails master plan update or additional sources that emerge following adoption.	

### 3.2.1 Costing Overview

For the purposes of the 2023 TMPU, costing has been prepared at the master plan level which are based on a series of assumptions determined at the time of development which reflect primarily construction costs. These preliminary costs are intended to be reviewed and refined at the time the City decides to proceed with a proposed project or education/outreach initiative. Costing information has been organized into two categories – capital costs and operating costs.

#### Capital Costs

Capital costing has been prepared for the proposed trail projects as well as the education and outreach initiatives noted in Section 2.3. Capital costs are fixed, one-time expenses incurred on the purchase of land, buildings, construction, and equipment used in the production of goods or in the rendering of services.

The following are the costing assumptions that informed the development of the City of Kawartha Lakes capital trail costs:

- Costing was developed using unit prices identified based on best and comparable practice and confirmed based on municipal input and experience.
- These costs should be the foundation for annual budgetary discussions and decisions made by City staff and be revised as needed to reflect up to date information.
- The costs are not meant to be prescriptive but provide a preliminary estimate of the potential implementation costs.

Based on these assumptions, the capital cost for the implementation of proposed trail projects within the City of Kawartha Lakes is...

**\$7,296,140** over the next 20+ years

Focus Area	Cost
#1. Somerville Forest Tract	\$1,523,940
#2. East Cameron Lake	\$724,050
#3. Superior Rd. Trailhead	\$155,000
#4. 3rd Concession of Somerville	\$1,482,000
#5. Fenelon Falls Urban Area	\$2,800
#6. Lindsay Urban Area	\$1,018,700



Focus Area	Cost
#7. Bobcaygeon Urban Area	\$245,000
#8. Emily Forest Tract	\$572,500
#9. Pontypool Forest Tract	\$930,600
#10. Bethany Area	\$476,550
#11. Kawartha Trans Canada Trail	\$165,000

**Table 35. Overview of Preliminary Capital Costs by Focus Area**

As noted in Section 3.1.1, each proposed project has been phased and is recommended to be implemented within one of three implementation horizons. **Table 36** provides an overview of preliminary capital project costs by phase.

Phase	Cost
Short-term	\$1,697,540.00
Medium-term	\$2,066,350.00
Long-term	\$3,532,250.00

**Table 36. Overview of Preliminary Capital Costs by Focus Area**

Capital cost estimates and unit cost assumptions have been provided to City staff along with the project details. The preliminary costing provided in the plan are meant to not only support the plan's actions, but also to provide future-ready "evergreen" approach which can be adapted based on economies of scale, changes to material cost, etc.

As projects move towards implementation, additional costs and contingencies should be considered. It is recommended that the following additional costs be considered and incorporated into budget assumptions as part of the implementation process:

Inflation	Permits & Approvals	Additional Studies	Design
3-4%	5%	\$50k	20%

In addition to the capital costs associated with proposed trail projects, other capital costs are identified to facilitate the implementation of the education and outreach program in support of trail awareness.

Preliminary costs have been identified within Section 2.3 and were developed based on best and comparable practices from past initiatives completed by comparable municipalities and may vary depending on community capacity and availability. A summary of preliminary education and outreach capital costs is provided in **Table 37**.

Education & Outreach Initiative	Estimated Cost
#1. Maintain and update online trail information	0\$ (Only staff time required)
#2. Kawartha Lakes Trail Days	\$5,000 - \$8,000
#3. Community rides / trail experiences	\$5,000 - \$8,000
#4. Trail kiosks and supplementary amenities	\$8,000 - \$16,000
#5. Trail clean-up days and use days with schools	\$2,000 - \$4,000
#6. Rental offerings	\$8,000 - \$16,000
#7. Pop-up trail outreach activities	\$5,000 - \$8,000

**Table 37. Overview of Preliminary Education & Outreach Capital Costs**

The capital costs associated with education and outreach have not been phased and should be considered once the City proceeds with the prioritization and implementation of education initiatives. Due to the cost impacts – both from a budget and staffing perspective, these initiatives may be implemented over the course of a couple of years and are heavily dependent on support from external partners as per Section 3.1.4.

## Operating Costs

The City is also responsible for the operating costs associated with trails. Operating costs are associated with the maintenance and administration of a business on a day-to-day basis. For the purposes of the TMPU, operating costs include trail maintenance, evaluation and enforcement based on the recommended approaches noted in section 3.3. The following are the costing assumptions that informed the development of the City of Kawartha Lakes trail operations costs:

- Trail maintenance will be dependent on the type of trail as per the trail classifications and intended seasonal uses. At a minimum, the following maintenance practices have been assumed for the trails within Kawartha Lakes to be undertaken on a routine basis quarterly to reflect changes in season or bi-annually:
  - Removing encroaching vegetation
  - Mowing
  - Map/signage updates
  - Trash removal/litter clean-up
  - Flood or rain damage repair: silt clean up, culvert clean out, etc.
  - Patching, minor regrading, or concrete panel replacement
  - Planting, pruning, and general landscaping
  - Amenity repair or replacement
- Costs associated with the maintenance of physical infrastructure will vary depending on staff availability as well as weather conditions. Costing does not provide recommendations on the types of maintenance vehicles or tools that would be needed to facilitate seasonal maintenance.
- Maintenance activities may or may not be required if there are environmental compliance requirements but should be reviewed by resource and environmental compliance staff for a determination if maintenance would have an impact on resource protection.
- For winter maintenance, preliminary costs have been provided. These costs only pertain to operational/staffing efforts and do not reflect the acquisition of necessary equipment. Based on research, this cost could be upwards of \$250,000 which includes the purchase of vehicle, insurance, fuel, and storage.
- Enforcement is undertaken by staff as part of the City's By-law Enforcement Division. The level of effort to complete bi-annual trail reviews will require one (1) FTE for information gathering and documentation. It may also require an additional budget of \$25,000 for enforcement related costs.

**Table 38** provides an overview of preliminary cost considerations for the trail types identified for the City of Kawartha Lakes. This information has been used to identify high-level budget estimates for maintenance operating costs for 500m of trail.

Trail Type	Estimated Annual 3 Season Maintenance Cost/500 m	Winter Maintenance Cost/500 m	Total Maintenance Cost/500 m
Type 1	\$1,366.86	\$287.76	\$1,654.62
Type 2	\$815.32	\$0.00	\$815.32
Type 3	\$323.73	\$0.00	\$323.73
Type 4	\$743.38	\$0.00	\$743.38
Type 5	\$1,127.06	\$575.52	\$1,702.58
Type 6 N/A	\$0.00	\$0.00	\$0.00
Type 7	\$275.77	\$0.00	\$275.77

**Table 38. Preliminary Maintenance Cost Considerations for Kawartha Trails**





### 3.2.2 Funding Tools and Opportunities

Previously in Kawartha Lakes, funding for trail improvements was highly variable, with investments primarily focused on infrastructure, and the budget for trails maintenance was not always enough to support the overall trail system across Kawartha Lakes in a fulsome manner. The municipality has had some success in securing funding as part of new developments, as part of dedicated special project and increasingly external and third-party funding sources have emerged to support trail improvements.

This updated trails plan endeavors to address these issues and build on past strengths by improving planning for future costs, including annual commitments to funding trail projects, internal coordination, increased maintenance that grows as new trail projects are built, while continuing to leverage funding from developers and other stakeholders. These planned strategic funding increases will help Kawartha Lakes establish more predictability for ongoing maintenance and future decision-making processes related to trails across the municipality.

As per **Costing and Funding Recommendations #1 through #3**, dedicated funds have been identified for the purposes of supporting the costing assumptions noted in Section 3.2.1. With the adoption of these recommendations we will see a dedicated fund of \$750,000 – to start – to support the implementation of all proposed initiatives within the TMPU. This includes both capital and operating costs as outlined in the TMPU report.

While a substantial and necessary increase, it is very likely that this amount will not cover the full amount that is needed to implement trail projects, undertake trail education and outreach, trail maintenance and operations and other costs associated with the plan e.g. equipment purchase, etc. As part of the City's annual reporting, an assessment of available budgets relative to cost needs should be included and if needed, additional requests for funds should be identified as the trails system grows and demand increases.

As per **Costing and Funding Recommendation #5**, external funding opportunities should be explored regularly and pursued, whenever feasible, to offset the costs. On the following page are a series of funding opportunities which could be considered for additional funding support. The requirements and criteria for these funding opportunities will likely change from time to time and new opportunities will arise. It is important to undertake a review of opportunities on an annual basis.

### **Government of Canada**

- Investing in Canada Program
- Healthy Communities Canada Funding Initiative
- Green Municipal Fund
- Federal Gas Tax
- Federal Active Transportation Fund

### **Province of Ontario**

- Ontario Municipal Commuter Cycling Fund
- Province-wide Cycling Network Funding
- Provincial Gas Tax
- Ontario Trillium Foundation Community Building Fund
- Ontario Rural Economic Development Fund
- Tourism Development Fund





### **Local Funding**

- Local agency support (in-kind)
- Service Club or Local Trail Club Funding
- Partnerships with Trail Organizations such as KATVA, KTCT and Snowmobile Club
- Corporate Environmental Funds
- Private Citizen Donation

### 3.3 Maintenance and Enforcement

#### Maintenance and enforcement refers to...

The practices and the protocols that are put in place to ensure that the trails are up to good working standard no matter the use or the season and the methods and tools used to ensure that safe and appropriate use of the trails is achieved.

	Recommendation	Timeline
	<b>Recommendation #1</b> Use minimum maintenance practices as per Council's direction, with additional guidance to be provided on enhanced trail maintenance standards as part of the City's infrastructure guidelines.	
	<b>Recommendation #2</b> For those trails where winter trail use is identified or the desire for winterized trail use has been identified, winter maintenance be undertaken in partnership with local organizations including plowing, signage updates and monitoring.	
	<b>Recommendation #3</b> As part of a monitoring and evaluation process, municipal staff of the Parks and Recreation Division will coordinate meetings with key stakeholders and community members to inform trail evaluation and improvement at a minimum of once per annum.	
	<b>Recommendation #4</b> Review the online reporting tool to ensure the maintenance issue portal can accommodate specific trail locations and issues.	
	<b>Recommendation #5</b> An annual or bi-annual evaluation is to be undertaken of the status and condition of the trails as per the template identified in the Trails Master Plan Update. Evaluations are to be completed in the summer.	
	<b>Recommendation #6</b> Community engagement pertaining to public perception of implementation successes and improvements to be undertaken bi-annually through community surveys.	

	Recommendation	Timeline
Recommendation #7	GIS database and implementation tools will be adopted by staff to manage the implementation of the trail projects and used to inform annual reporting.	
Recommendation #8	A formalized trail enforcement program should be developed and updated in City by-laws with a dedicated Enforcement Complaint form to be prepared for trail issues.	

### 3.3.1 Maintenance Practices

The City of Kawartha Lakes currently allocates \$100,000 for annual trail maintenance practices as apart of their operating budget. The approach to maintenance is one that is currently based on community input and some staff assessment as opposed to being tied with a specific maintenance standard for trail use and users. The intent is for the TMPU to provide more strategic guidance on the maintenance practices and approaches to inform the allocation of \$200,000 for trail maintenance based on the costing and funding recommendations.

Many municipalities currently use the Provincial Minimum Maintenance Standards (Ontario Regulation 239/02) to inform maintenance practices, including for active transportation facilities. At the Provincial level, the Minimum Maintenance Standards (MMS) provides greater guidance around the maintenance of active transportation infrastructure which could in turn be used for select trails.

**Table 39** provides a summary of some of the potentially relevant minimum recommended service levels for non-winter maintenance activities based on information provided in Ontario Traffic Manual Book 18: Cycling Facilities (2021). As **Maintenance and Enforcement Recommendation #1**, the City of Kawartha lakes should proceed with these maintenance minimums.



Type of Maintenance	Service Level
Patrol and inspection	3 times every 7 days to one every 30 days (O. Reg 238/02 s. 3)
Sweeping	Scheduled sweeping weekly to monthly; deploy resources outside of scheduled sweeping as soon as practicable after becoming aware of debris (O. Reg 239/02 s.9)
Surface discontinuities (10.2.21)	Greater than 5cm height within 2 to 21 days after acquiring knowledge (O. Reg 239/02 s.16)
Cracking (10.2.2.2)	Greater than 5cm wide and 5cm deep (O. Reg 239/02 s.8).
Vegetation management	Routing mowing including daylight triangles at intersections, annual trimming of bike path trees.
Signage (10.2.5) and pavement markings	Refreshed as needed

**Table 39. Overview of Minimum Maintenance Standards**

As per **Maintenance and Enforcement Recommendation #1 and #2**, enhanced trail maintenance will be considered as the City proceeds with the implementation of the TMPU. For each of the proposed trail classification, minimum maintenance guidelines have been provided for consideration by the City. These guidelines have been used to inform the identification of master plan level costing in Section 3.2.3 of the plan.

**Table 40** provides a summary of those maintenance considerations by trail classification. This information is intended to be used as existing trails are enhanced and new trails are implemented to determine the appropriate level of maintenance that is required – both seasonal and winter.

	Seasonal Maintenance	Winter Maintenance
<b>AT Use Type 1: Fully Accessible Trail (Type 1)</b>	High level of service in 3 seasons, and moderate frequency of maintenance Trail segments identified as key commuter routes are candidates for winter maintenance	Some sections may be candidates for winter maintenance
<b>AT Use Type 2: Recreational Connecting Link (Type 2)</b>	Low - Moderate level of service in 3 seasons and moderate-low frequency of maintenance (e.g. seasonally or as required for emergencies)	No winter maintenance
<b>AT Use Type 3: Natural Use Trail (Type 3)</b>	Lowest level of service Lowest frequency of maintenance	No winter maintenance
<b>Shared Use Type 1: Fully Shared Corridor (Type 4)</b>	Moderate level of service in 3 seasons and moderate-low frequency of maintenance	No winter maintenance
<b>Shared Use Type 2: Dedicated Use Corridor (Type 5)</b>	High level of service in 3 seasons, and moderate frequency of maintenance Trail segments identified as key commuter routes are candidates for winter maintenance. Snow mobile grooming required	Some sections may be candidates for winter maintenance
<b>ORH/OHV Use Type 1: Explorer Trail (Type 6)</b>	Lowest level of service Lowest frequency of maintenance	No winter maintenance, except for grooming for snowmobiles

Table 40. Summary of Proposed Trail Maintenance Practices by Trail Classification

A more detailed overview of the level of effort expected for various types of maintenance has been prepared for the City as a resource, tool, and reference. This document was shared with the City and includes level of time, effort, and timing for the various maintenance practices by trail type. The information is intended to be reviewed and confirmed on an annual basis.

A maintenance program will only succeed if there is well communicated and well used documentation and monitoring. Two maintenance monitoring practices are recommended for the City of Kawartha Lakes which provide community members and staff to engage in maintenance dialogue on an ongoing basis.

- **Ongoing documentation**

The City currently has an online reporting tool under the “Report an Issue or Concern” page which allows individuals to submit their questions, comments, and concerns regarding municipal services. There are some categories which could be related to trails including signs, parks and recreation, dust-sweeping, grading or trees.

While sufficient, it would be more effective to have trails specifically added to this list and for the trails coordinator to be provided with relevant information on a bi-weekly or monthly basis to support the development of a maintenance needs database. This is consistent with **Maintenance and Enforcement Recommendation #4.**

- **Bi-Annual or Quarterly Site Review**

In addition to ongoing documentation, staff are recommended to go out on site to review the existing trails to determine the specific maintenance needs. These site reviews would be completed and incorporated into the maintenance needs database.

The information would be used to inform the next budgeting process to determine maintenance budget and needs. The approach to site review maintenance documentation and completion is recommended to be supported by the trail maintenance costing information provided in Section 3.2.1.

### 3.3.2 Evaluation Tools

It will be critical to adopt and utilize a process to monitor and evaluate the successes, challenges, lessons learned, and areas of improvement associated with trails. One of the main challenges of the 2006 trails master plan was a lack of monitoring of its implementation and understanding of the challenges and successes.

With the adoption of the TMPU, a key focus is understanding how the various recommendations and interventions influence the use and interest around trails within the City of Kawartha Lakes and to adapt practices to reflect issues or concerns.

Establishing a set of consistent measures and a process to gather and evaluate those measures can help staff prioritize future projects, rationalize investments, and allocate resources. Municipalities that have adopted effective monitoring and evaluation strategies have been able to:

- Demonstrate the value of trail investments to citizen and elected officials.
- Track the success of a program or trail project that has been implemented.
- Inform investments through data-driven measures of success.
- Comply with funding requirements from varying levels of government.
- Provide information to engage a broader set of stakeholders.
- Capture the value of new and innovative datasets and data collection methods.

Performance measures should be developed and tailored to the municipality and its specific goals. The information gathered should be used to update annual budgets and priorities as the plan proceeds with implementation. A series of potential performance measures have been developed as part of the TMPU. The intent is to review this list and confirm which indicators could be used based on available information and capacity.

**Table 41** presents the potential performance measures.

Measures	Metric	Indicator
Public Health	Individual activity levels	#
	Time walking or biking per day	#
	Air quality index	#
Trail Use	User counts	#
	Mode split	#
	Duration of trip	#



Measures	Metric	Indicator
	Recreational trips documented	#
Projects	Number of New Trails Added	#
	Number of trail improvements made	#
	Number of new signs implemented	#
	Number of amenities implemented	#
Investment	Capital allocation of trail projects	%
	External funding of operations	%
	External funding of trail projects	\$
Economic Development	Number of cycle tourists	#
	Number of trail tourists	#
	Customer by travel mode	%
	Revenue by travel mode	#
Education	Number of campaigns undertaken	#
	Trail specific promotional materials i.e. maps	Y/N
	Dedicated trail webpage	Y/N
Enforcement	Ticketing for trail restricted use	#
	Citations for poor trail etiquette	#

Table 41. Potential Trail Evaluation Performance Measures

The way in which the City acquires the information to review and evaluate the performance measures will need to be varied. As per the maintenance and enforcement recommendations, there are four (4) proposed data collection and management options that the City is recommended to deploy. They are as follows:

- **Conversations with Stakeholders (Maintenance and Enforcement Recommendation #3)**

The stakeholders engaged as part of the TMPU process and those identified in the partnership section should continue to be involved in the review and assessment of trails. Stakeholders will be invited to a meeting at least once a year with Parks and Recreation staff with the agenda focusing on using their input to understand how the trails are functioning, issues and concerns, communication needs, potential programs, and partnerships, etc. The meeting is recommended to occur prior to budget decisions.

- **Manual Documentation (Maintenance and Enforcement Recommendation #5)**

City staff will either manually complete or purchase technology to support in the gathering of data/information regarding trail use. The counters will help to generate data regarding trail use and users and the manual documentation would allow for more detailed information regarding user perceptions. This can occur concurrently with the maintenance reviews referenced in Section 3.3.1. Manual documentation is also encouraged to include intercept surveys of users where possible. The various types of technology that could be deployed include:

- Individual Smartphone Technology which is a self-drive/self-documented approach using a survey is provided via QR code at the beginning of a trail and trail users are able to log trips, provide commentary, identify seasonal operational issues, quality of trail experience, etc. This is a low-cost option whereby the City would need to prepare the survey and provide it for public access. The downside is that the information is not consistent and subjective.
- Eco-counters which are point in place documentations of trail use which can be placed at strategic locations to understand the frequency and type of use by all trail users – active or motorized. The information is provided directly to the municipality through user friendly software. A cost for an eco-counter is around \$1,500 per counter. It provides a visual que which can serve as an additional promotional tactic and can also include branding consistent with other municipal concepts i.e. trail signage.
- Tube counter module and technologies are placed along a trail underneath the surface and provide a more permanent solution to gathering data on a day-to-day basis. MetroCount is one such example which also includes a counter box in proximity. They capture all trail use and typically cost around \$5,500 and may need to be replaced about every 5 years.

- Cameras can be placed along the trail, mounted on lighting or utility poles 15 to 25 feet above the ground. Typically used for traffic on-road these can also be used for trails and delineate between various users through the video technology and supporting algorithms. There can be issues associated with privacy, but the degree of detail typically addresses these concerns. Costing is dependent on the number of installations and the term of data collection. This could be around \$2,000.
- **Community Engagement (Maintenance and Enforcement Recommendation #6)**

City staff will offer a survey twice a year – following the summer and after the winter – to gather information on the experiences and perceptions regarding municipal trails. This will help supplement the ongoing documentation of trail maintenance issues and will focus on evaluating successes and opportunities for improvement. The survey will be developed and distributed through the Jump In page.
- **Implementation Monitoring Database (Maintenance and Enforcement Recommendation #7)**

The implementation monitoring database has been developed as a tool for municipal staff to update and maintain trail related data – specifically regarding trail projects. This database is meant to be used in combination with the trails GIS database and updated on an annual basis (at a minimum) to reflect when projects are implemented, their status, new projects that emerge or changes to project details, unit costs and phasing considerations. This tool will be an internal communication tool as well as evaluation and documentation of implementation successes.

### 3.3.3 Enforcement

Trail enforcement is used to ensure that individuals safely practice appropriate trail use as dictated by the guidelines and standards set by the municipality. **Maintenance and Enforcement Recommendation #8** recommends the design and implementation of a trail enforcement program for the City of Kawartha Lakes.

This recommendation was specifically identified due to the ongoing challenges associated with trail safety and use relative to the various trail users within the City and to try to address the perception of need regarding self-policing. There are trails within the City that because of the TMPU will see the restriction of use of certain users. In addition, as the City proceeds with the implementation of the trail classification, there will be clear permissions and restrictions of users relative to the different trail types that are designed and implemented.

The way in which regulated and safe use is communicated will be critical to the enforcement program. Communication should occur in a series of tactics including:

1. **Signage:** as per the preliminary signage and wayfinding strategy noted in Section 2.2, regulatory signs and special purpose signs are to be implemented along trail corridors where there is a specific restriction of use or where there is an expectation of certain types of trail etiquette such as speed or passing.
2. **Municipal Webpage:** as the City enhances and updates their trail related information on the Trails and Conservation Areas page, enhancements should be made to the content on “trail use guidelines” or a new section of trail enforcement should be included. This information should be clear as to the certain types of trail use expectations and the locations where these behaviours will be enforced. If the City selects to provide information on trail enforcement, the details of the trail enforcement program noted below should be included.
3. **Hard Copy Mapping:** On any promotional mapping that is prepared by the City – either the Parks and Recreation division or Kawartha Tourism – information should be reviewed every other year for accuracy and information on appropriate trail etiquette and trail enforcement expectations should be prioritized in the design/ layout of the document. Information could include a QR code to the municipal website or type etiquette information with supporting resources from external partners.
4. **Partner Information:** Any other partners that play a role in trail promotion should endeavour to have complementary information on their online or hard copy materials regarding trail etiquette and use. These partners are encouraged to work with City staff to determine the most appropriate wording and resources to be included.



The level of efforts associated with these enforcement communication tactics are covered in prior recommendations and considerations including TMPU partnerships, education and encouragement programs and trail comfort / management projects.

The City of Kawartha Lakes trail enforcement program is proposed to include the following tools and tactics:

- **Local Enforcement Blitzes:** working with the City's by-law enforcement and representatives from KATVA and KSC, City staff will go out to municipal trails over the course of a week to determine whether there is appropriate use based on the trail type, user restrictions (if appropriate) and season. If during these blitzes there are activities or actions that are deemed counter to appropriate trail etiquette or against trail regulations (as per municipal by-laws) These blitzes should occur at least twice a year during the summer and winter months.
- **Partnerships with OPP:** For behaviours that are considered counter to policies and regulations under the highway traffic act or other provincial policies, it will be necessary to engage the OPP in enforcement. Building on the existing relationship, the City is encouraged to ask representatives of the OPP for two days a year
- **Trail Safety Days:** the trail safety days are more about positive reinforcement regarding safe trail use enforcement. Working with local partners City staff are encouraged to go out to strategic trail locations and have discussions with trail users to celebrate good trail use or to explain unsafe use and its potential consequences. The trail safety days would be most appropriate for community enforcement officers who would support the city on a volunteer basis up to five days a year.
- **Technology:** technology implementation can have a dual use to gather trail use data as well as document information regarding trail user behaviour. Depending on the type of technology that is implemented, there could be opportunities to use self documentation of the issues which could be followed up with enforcement messaging or tactics.

The details of the enforcement program are to be reviewed and confirmed following the adoption of the TMPU with a pilot implemented along the East Cameron Lake section of the Victoria Rail Trail to determine effectiveness. To support the implementation of the trail enforcement program, there will need to be ongoing coordination and collaboration. Section 3.2.1 identifies specific municipal partners and their roles including those that are identified to support with trail enforcement.

Based on the information noted above, it would be appropriate to expect/anticipate around 3 weeks of staff time to be spent on additional trail enforcement per annum. This does not include in-kind efforts from other trail organizations as noted in the partnership section of the TMPU.

## 3.4 Closing

Through the development and adoption of the Trails Master Plan Update, the City of Kawartha Lakes is recommitting to the future of trails. Through the robust planning process that was undertaken by the City and its partners, the trails master plan has been re-envisioned and reframed to provide the City with tools, tactics, and targets to make a shift towards greater recreational mobility.

The plan is ambitious and robust. It sets a timeline of 20+ years but provides the City with the flexibility to use the policies, processes, guidelines, and tools to adapt to anticipated or unanticipated growth and changes.

The level of detail and technical thought that went into the development of the plan is further reinforced by the extensive consultation and engagement with stakeholders, staff, community members and council representatives that occurred. The outcomes of this plan are truly shaped by and developed for the people who live, work, play and stay within the City of Kawartha Lakes no matter the age, ability, or interest.

**Trails for Kawartha Lakes means trails for everyone!**

