



Township of King Trails Master Plan

August 13, 2015
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Executive Summary

Background

King, Ontario is a township in the York Region of the Greater Toronto Area. One of nine municipalities that make up the Regional Municipality of York, King is comprised of Schomberg, Ansnorveldt, King City, Kettleby, Laskay, Nobleton, Lloydtown, Snowball and Pottageville. It's population is projected to grow from 19,899 (2011) to 35,000 by 2031.

With a total area of 339 square kilometres, the township is home to some of the province's most scenic landscapes and countrysides. One of King Township's most significant assets is its agricultural sector which depends on the rich, fertile soils of the Holland Marsh. Approximately 60% of the Holland Marsh is found in King. Falling within the Greenbelt and Oak Ridges Moraine, King Township possesses a vast amount of natural and ecological significance.

As a part of King Township's 2014 budget process, a trails master plan was requested that respects and promotes the natural heritage, scenic beauty and rural traditions of King.

Purpose

The goal of the Trails Master Plan is to create a document that addresses route planning, trail standards and the development of a prioritization and phasing strategy. The Township of King will benefit from a trails master plan in areas including health and fitness, transportation, environment, economy and tourism.

The plan was developed with an integral sensitivity to environmental stewardship and local ecology while connecting local communities.

The plan builds upon prior work and companion existing trail studies to direct the planning, implementation, maintenance and communication of the Township's trails and integrate them with the broader active transportation networks.

Part One: Inventory, Assessment and Evaluation

Context was a key consideration in the development of this master plan. Thorough analysis of existing planning policies pertaining to trails (Ontario Trails Strategy, King Township's Integrated Sustainability Plan, King Transportation Master Plan, etc.), potential trail users and consideration of neighboring municipalities form the foundation of this document.

Existing Trails

A thorough inventory of existing trails was undertaken to facilitate effective integration into the existing network. These trails include the Oak Ridges Trail, Township of King Trail, York Region, Toronto and Region Conservation Authority, Lake Simcoe Region Conservation Authority, Happy Valley Forest, Nature Conservancy of Canada, University of Toronto, Seneca College, Ontario Nature, Waterfront Regeneration Trust.

Community and Stakeholder Input

Input from various opportunities for community and stakeholder input has been incorporated into the final master plan. This input includes results from stakeholder meetings and working sessions, public meetings and presentations and online surveys.

Recommendations

Existing Trails (E)

The Township of King has approximately 100 kilometres of trails ranging from paved pathways through municipal parks to publicly accessible natural surface single track trails in sensitive privately owned natural environments. This master plan provides an overview of the conditions of these existing trails, accompanied by comments and recommendations.

New Trails (N)

This master plan sets forth a proposed trail network of on and off-road trails for maximum accessibility and connectivity. A number of factors were key considerations in developing a recommended route

through the Township of King. These factors include safety; connectivity; accessibility; sustainability; diversity; integration, and; sensitivity to natural and cultural heritage conditions.

Trailheads (T)

Trailheads are the primary starting points to the trail network. This master plan designates primary and secondary trailhead locations and sets forth recommendations for how they can inform the public about safe trail use and etiquette and provide a map of the network.

Signage and Wayfinding (S)

An overall strategy for trail signage is provided to enhance the trail user's experience. Key considerations in the design of the signs include use of resistant materials, easy replacement and legibility.

Operations and Maintenance (O)

This master plan also includes a series of recommendations for the operation and maintenance of the new trail network. These recommendations include guidelines for designation of representatives and working groups, establishment of appropriate budget, and site observation, inspection and enhancement. Costs for maintenance and replacement are not included in the proposed financial framework.

Marketing and Promotions (P)

The success of the plan relies heavily on public support. Marketing and promoting the trails in King should be ongoing to encourage use of the existing trail network. This will raise public awareness, leading to financial support, volunteerism and other donations for further expansion of the trail network. Strategies recommended for trail marketing and promotion include trail maps, events, adopt-a-trail, contests, newsletters and memberships, and the establishment of an on-line presence.

Implementation

The implementation of the trails master plan will be achieved through means such as approved capital budgets; the creation of trail links by developers; improvements by Conservation Authorities and

institutional landowners, and alignment with existing policies and master plans. Upon approval of the master plan, the Township will be able to access grants and partnership funds that support trails and active transportation initiatives. Staff have already begun exploring funding opportunities through grants, specifically with respect to the Ontario Municipal Cycling Infrastructure Program.

Implementation is set to occur in three increments:

- ▶ Short Term (1-5 years): marketing and promotion; establishment of signage strategy; improvements to existing trails, and; preliminary development of new trails.
- ▶ Medium (5-10 years): establishing linkage between King's urban areas and the trail network to expand to other key destinations.
- ▶ Long Term (10+ years): new trail connections to adjacent municipalities to expand the King Trail network beyond the municipal boundaries.

Itemized initiatives for each phase of implementation are provided as well as suggestions for funding opportunities.

Appendices

Attached to this document are the following appendices:

- ▶ Public consultation documents including presentation panels from Public Meetings #1 and #2 and results of a trails use survey; and,
- ▶ Trail master plan diagrams.

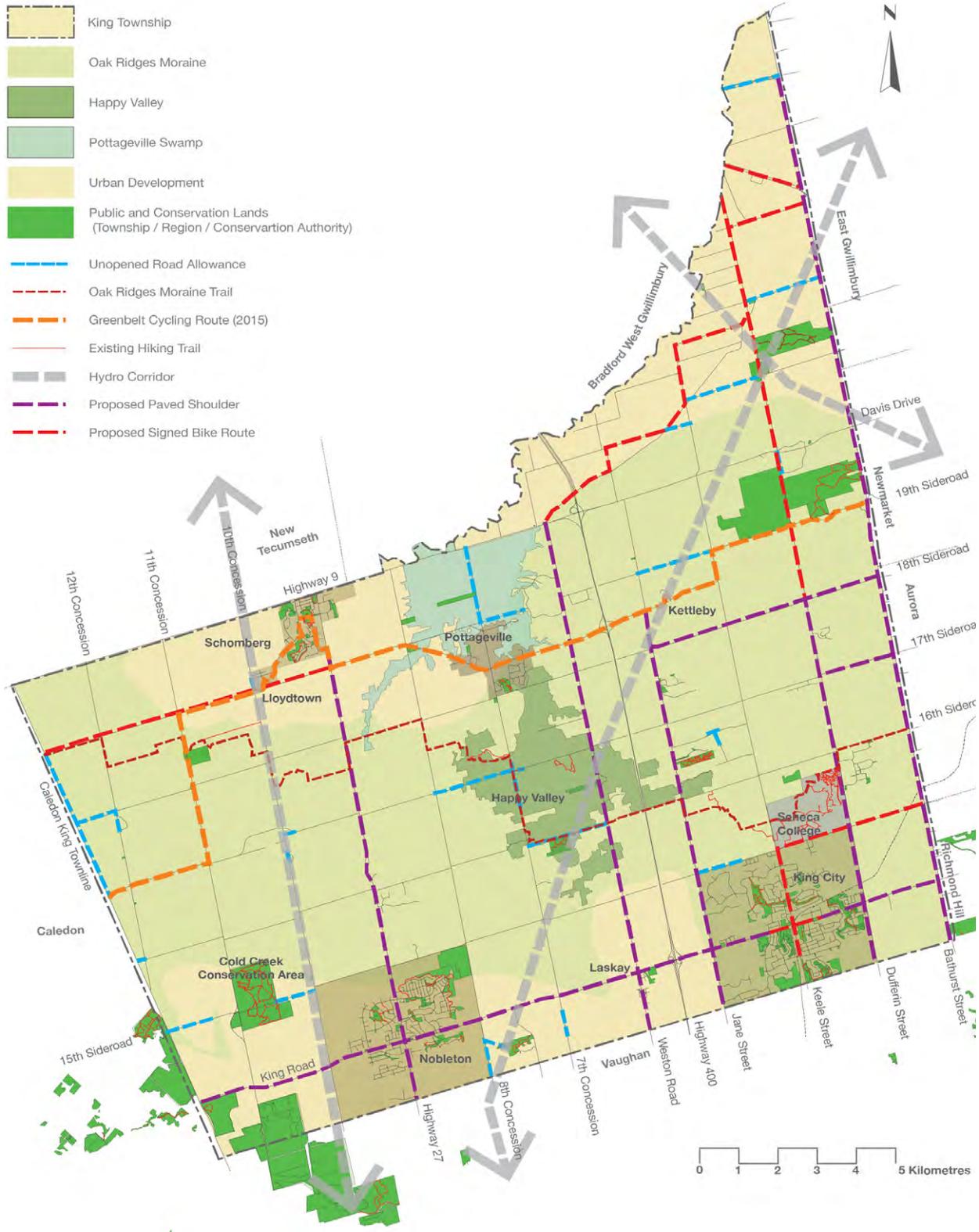
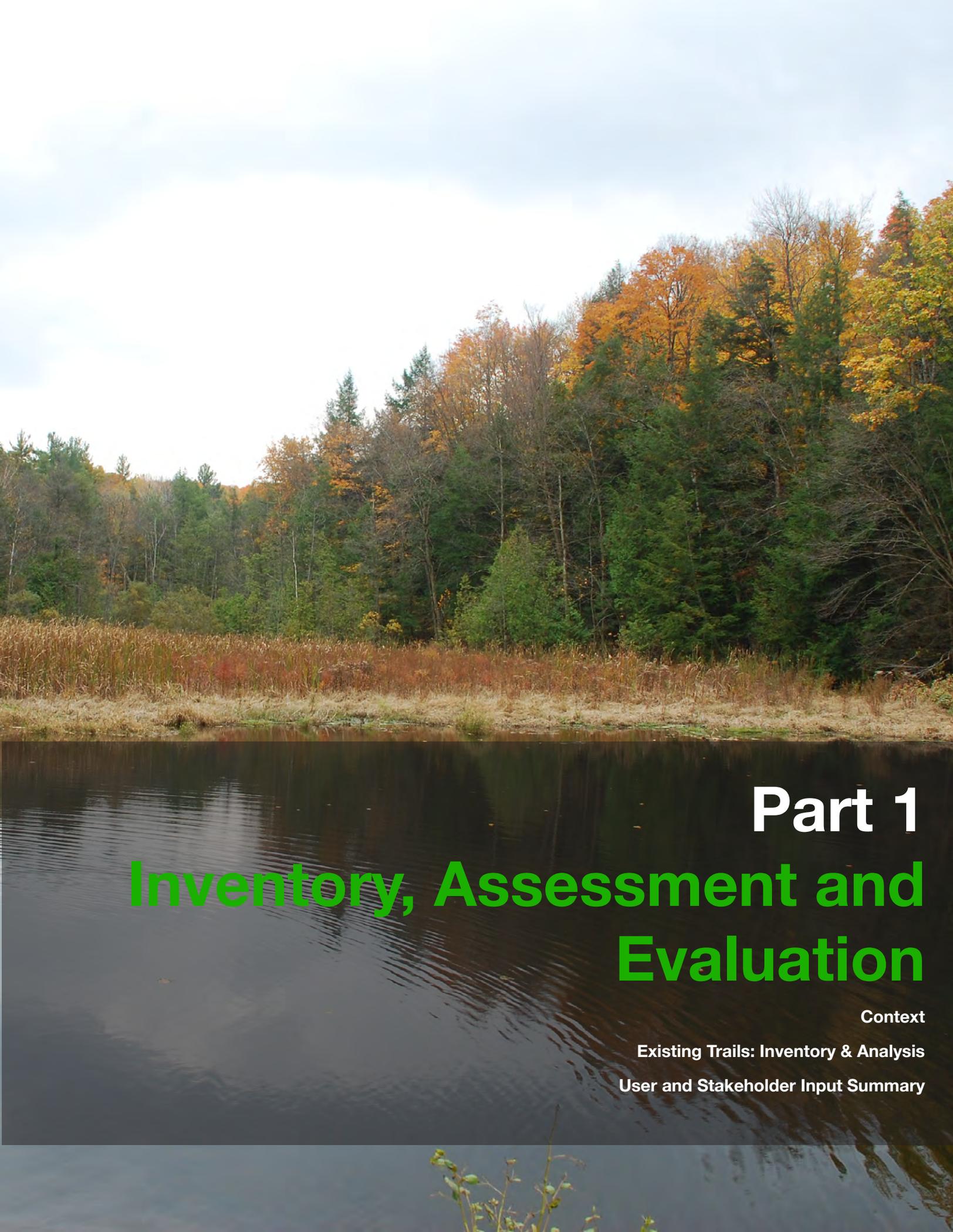


Figure 1: Map of Township of King
 The trails master plan is for the entire approximately 333 square kilometre area of the Township.



Part 1

Inventory, Assessment and Evaluation

Context

Existing Trails: Inventory & Analysis

User and Stakeholder Input Summary

Part 1: Inventory, Assessment and Evaluation

Context

For the Trails Master plan, there are a number of planning policies and plans which should be considered as they specifically pertain to trails. These include:

- ▶ Ontario Trails Strategy;
- ▶ King Township's Integrated Community Sustainability Plan;
- ▶ King Transportation Master Plan (Draft);
- ▶ Township of King: Parks, Recreation and Culture Master Plan Update; and,
- ▶ Oak Ridges Moraine Conservation Plan.

There are also agencies (Toronto and Region Conservation Authority, Lake Simcoe Region Conservation Authority, and York Region) that play a key roll in planning trails in King. Finally there are King's eight neighbouring municipalities that should be considered when planning a regional trail network. The following provides a summary.

Ontario Trails Strategy

The Ministry of Tourism, Culture and Sport describes the Ontario Trails Strategy as a long-term plan that establishes strategic directions for planning, managing, promoting and using trails in Ontario.

The strategy focuses on trail networks in urban, rural and wilderness environments that are used for recreation, active living, utilitarian and tourism purposes including but not limited to:

- ▶ Trails with natural or treated surfaces;
- ▶ On-road bicycle routes;
- ▶ Walkways, boardwalks and sidewalks;
- ▶ Trails located on transportation and utility corridors;
- ▶ Access roads (i.e. for forestry and mining) "designated" for trail use;

- ▶ Trails that are integrated with public transit services; and,
- ▶ Waterway routes and portage routes.

There are five strategic directions that are outlined in the Ontario Trails Strategy:

1. Improving collaboration among stakeholders;
2. Enhancing the sustainability of Ontario's trails;
3. Enhancing the trail experience;
4. Educating Ontarians about trails; and
5. Fostering better health and a strong economy through trails.

Sustainability Plan

King Township's Integrated Community Sustainability Plan demonstrates how King as a community is committed to making smarter decisions about how resources are used, the design of communities and finances are managed.

The Plan is a resource that defines the future for the Township of King, community groups, businesses, local organizations and the public. It guides and directs how King makes decisions, develops partnerships and takes action. The Plan promotes community vitality and prosperity while respecting, preserving and restoring the natural environment. It emphasizes a balance between the environmental, economic, socio-cultural, and financial priorities of the community and recognizes the interconnections between them.

One of the plan's key immediate priorities is to encourage the use, appreciation and respect of King Township's natural areas and trails. This Master Plan is an important step in realizing this priority.

King Transportation Master Plan

In January 2014, the Township of King initiated a Transportation Master Plan study. This study involved a thorough and open public process in accordance with the requirements of Phases 1 and 2 of the Municipal Class Environmental Assessment

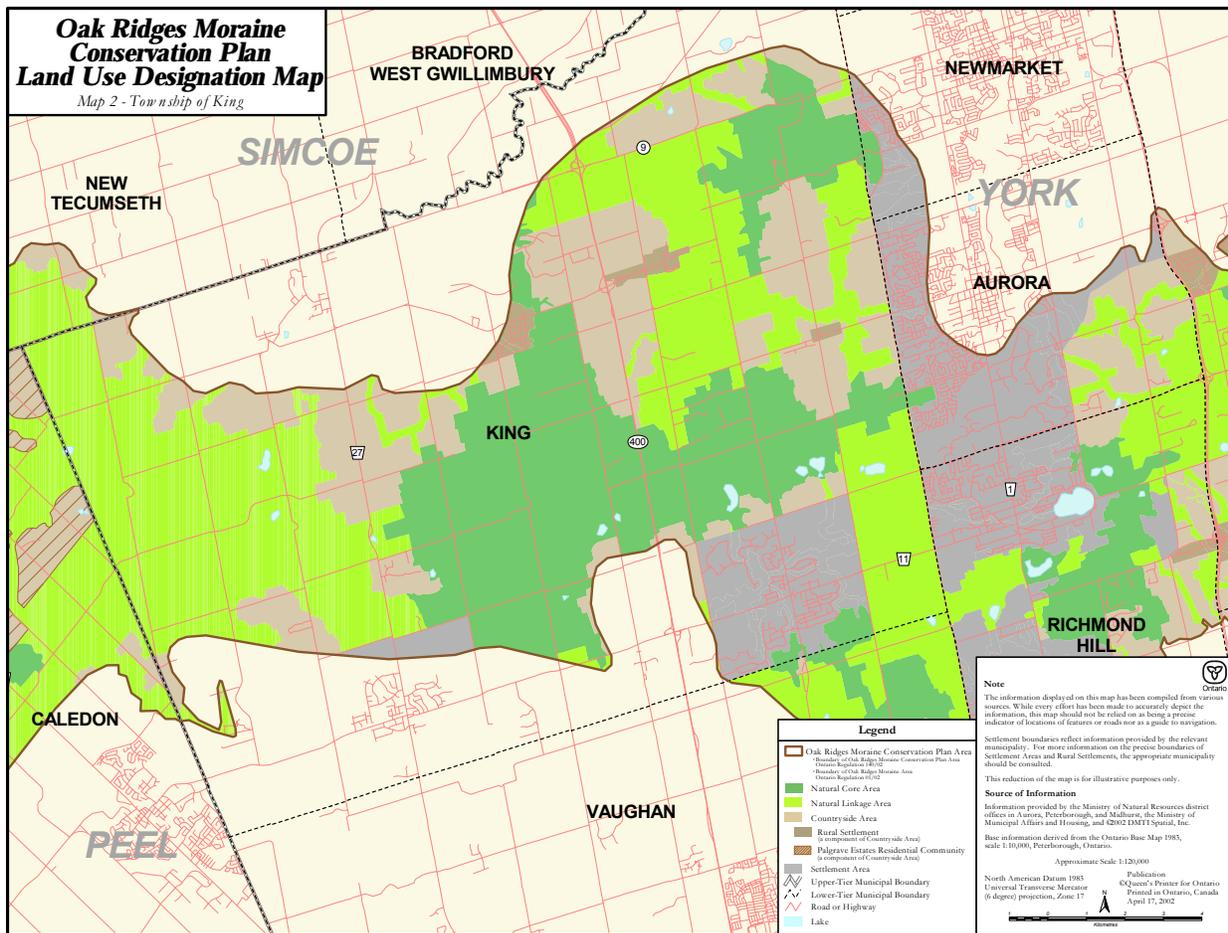
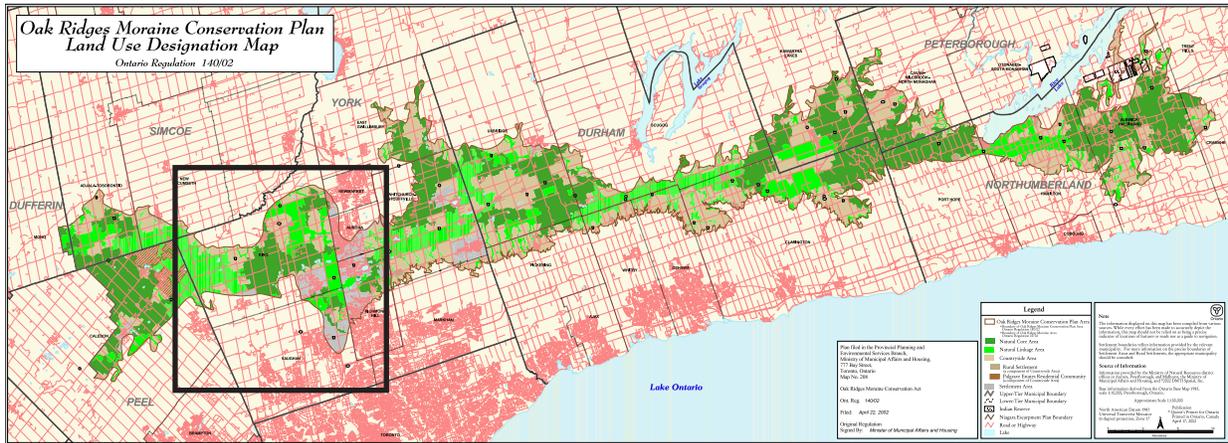


Figure 2: (top) Map of Oak Ridges Moraine
Image courtesy of Ministry of Municipal Affairs and Housing.

Figure 3: (bottom) Oak Ridges Moraine in the Township of King and adjacent municipalities
Image courtesy of Ministry of Municipal Affairs and Housing.

(EA) process (October 2000 as amended in 2007), which is an approved process under the EA Act. The purpose of the study is to guide the development of the Township's long-term transportation vision for the next twenty years. It will reflect the Township's desire to develop a sustainable transportation system with a strong focus on efficient use of existing infrastructure, transit, active transportation and Transportation Demand Management. Public Information Sessions were held in January and July 2014 at various locations throughout the Township. This plan was approved by Council in June 2015.

Township of King: Parks, Recreation and Culture Master Plan Update

In 2013, the Township of King completed an update to their Parks, Recreation and Culture Master Plan. This study highlights a number of recreation trends showing an increased interest in walking and the use of hiking trails. This trend was echoed during the study's public consultation process where participants supported the enhancement of King's existing trails and the planning for new trails as part of the land development process.

The final master plan identifies a number of priorities for enhancing trails within King. These include:

- ▶ Undertaking a comprehensive Trails Master Plan to refine the conceptual trail routes identified in the Parks, Recreation & Culture Master Plan Update, and quantify costs;
- ▶ Incorporating principles of active transportation throughout the Township, in particular by augmenting the existing trails network to facilitate better connectivity and amenities;
- ▶ Focusing investments on making trails more comfortable by adding benches, shade areas, maps, washrooms, etc. where appropriate; and,
- ▶ Considering options for paving trails, where appropriate.

Oak Ridges Moraine Conservation Plan

The Oak Ridges Moraine is a protected ridge of land that runs parallel to and about 60 km north of Lake Ontario. The varied geology of the Moraine has contributed to the diversity of vegetation which includes 100 regionally rare, 5 provincially rare,

and a few endangered species. Nearly 70% of the township's lands are situated in this protected area. The Moraine is part of the Greenbelt Plan which promotes the protection and restoration of natural and open space connections between the Oak Ridges Moraine, the Niagara Escarpment, Lake Ontario, Lake Simcoe and the major river valley lands, while also maintaining connections to the broader natural systems of southern Ontario beyond the Golden Horseshoe.

The Oak Ridges Moraine Conservation Plan (Ontario Regulation 140/02) is to provide land use and resource management planning direction on how to protect the Moraine's ecological and hydrological features and functions. One of the plan's objectives is to provide for a continuous non-motorized recreational trail through the Oak Ridges Moraine Area that is accessible to all including persons with disabilities.

Under Part IV of the plan – Specific Land Use Policies – item 39 Trail systems pertains to trails in the Oak Ridges Moraine as follows:

Trail system

- (1) A recreational trail system shall be established to provide continuous access and travel along the entire Plan Area, accessible to all including persons with disabilities.
- (2) The trail system shall,
 - (a) be designed to maintain and, where possible, improve or restore the ecological integrity of the Plan Area;
 - (b) be located in the Natural Core Areas and Natural Linkage Areas as much as possible;
 - (c) be located away from unopened road allowances as much as possible.
- (3) Despite anything else in this Plan, the following uses, buildings and structures are permitted on the trail system:
 1. Non-motorized trail uses.

2. Parking, signage, washrooms and interpretive facilities to support access to the trail system.
 3. Fencing to define and protect the trails.
 4. Works to improve access to the trail system and remove barriers to its use, for the benefit of all including persons with disabilities.
 5. Works to protect ecologically sensitive portions of the trail system.
 6. Conservation and erosion control to protect or restore key natural heritage features and hydrologically sensitive features and the related ecological functions along the trail system.
- (4) Paragraph 1 of subsection (3) does not prohibit the use of motorized wheelchairs by persons who need them for mobility.

Toronto and Region Conservation Authority (TRCA)

The Toronto and Region Conservation Authority's (TRCA) jurisdiction includes the Humber Watershed in the Township of King. Under Ontario Regulation 166/06, the TRCA regulates and may prohibit work taking place within a stream, river, valley, wetland or watercourse of any kind within the Humber Watershed in King. The TRCA is also actively involved in the planning, design, implementation and management of various trails within the Township. Some of the guiding policy plans and documents which pertain to trail planning include:

Living City Policy Document

The Living City Policies for Planning and Development in the Watersheds of Toronto and Regions Conservation Authority (LCP) is TRCA's vision for a sustainable, vital and beautiful urban region prospering into the next century. Developed in 2014, it is a conservation policy document that guides the implementation of legislated roles and responsibilities of the TRCA in planning and development approvals.

Policy areas of interest the LCP include:

- ▶ Wetland and Lake Ontario shoreline policies;
- ▶ Natural system protection;
- ▶ Adaptive management in environmental assessment, master planning and infrastructure;
- ▶ Natural system management, including restoration of degraded areas, and;
- ▶ Emphasis on ecosystem services, green infrastructure and sustainable communities.

Planning and Development Procedural Manual

The Planning and Development Procedural Manual is for any party interested in obtaining approvals from the TRCA. This includes landowners, developers and builders. The manual identifies the role and the parameters by which the TRCA will approve development proposals. The TRCA bases all recommendations and decisions in support of their vision for a Living City.

Humber River Watershed Plan

The Humber River Watershed is a resource under stress due to human activity. The Humber River Watershed Plan reviews the health of the watershed, emphasizing the need to restore and protect this valuable resource. The guiding framework for this Plan is a series of objectives that address environment, society and economy. It stipulates three critical watershed management strategies:

- ▶ Protect natural heritage;
- ▶ Build sustainable communities; and,
- ▶ Honour Humber's distinctive heritage through enhancement of the regional open space system.

Trail Planning and Design Guidelines

Since 2009, the TRCA has been undertaking an update of the 1992 document Trail Planning and Design Guidelines: A Handbook for an Inter-regional Trail System in the Greater Toronto Area. The purpose of this new and updated document is to establish strategic directions for trails in the TRCA watershed, and provide guidance on trail planning, design, implementation, management, use and promotion.

Areas of interest to be covered in this strategy may include:

- ▶ Linkages and intersections;
- ▶ Surfacing of trails;
- ▶ Monitoring of users;
- ▶ Trail and trail amenity construction standards and specifications;
- ▶ The review and permitting and approvals;
- ▶ User safety and liability;
- ▶ Accessibility;
- ▶ Trail maintenance;
- ▶ Signage;
- ▶ Coordination of information;
- ▶ Trail classification; and,
- ▶ Partners and funding.

The TRCA has a number of properties in King Township including Cold Creek Conservation Area which the Township of King manages, and the Humber source woods located north of the unopened 16th sideroad and east of 7th.

Lake Simcoe Region Conservation Authority (LSRCA)

The Lake Simcoe Region Conservation Authority's (LSRCA) jurisdiction includes the Lake Simcoe Watershed in the Township of King. Like the TRCA regulated lands to the south, the LSRCA regulates and may prohibit work taking place within a stream, river, valley, wetland or watercourse of any kind within the Lake Simcoe Watershed.

Within the Township of King the LSRCA owns and manages the Pottageville Swamp and Thornton Bales Conservation Areas. Tyrwhitt is a third property owned by the Conservation Authority but managed by the Township of King.

York Region

The Regional Municipality of York includes nine local municipalities including the Township of King. There are a number of York Region initiatives that have implications towards creating a connected and integrated trail network that should be considered in preparing the King Trails Master Plan. These

include the Region's Pedestrian and Cycling Master Plan (2008) and the Region's Lake to Lake Trail initiative. York Region Forests also support trails. In the Township of King York Region forest properties include:

Neighbouring Municipalities

The Township of King shares its borders with eight Municipalities:

1. East Gwillimbury;
2. Newmarket;
3. Aurora;
4. Richmond Hill;
5. Vaughan;
6. Caledon;
7. New Tecumseth; and,
8. Bradford West Gwillimbury.

Each one has a trail master plan that should be considered to help create a connected regional trail network.

East Gwillimbury

The Town of East Gwillimbury's Active Transportation and Trails Master Plan outlines a number of trail initiatives pertinent to King's Trails Master Plan including:

- ▶ North Road and Middle Road;
- ▶ Hochreiter Road;
- ▶ Toll Road;
- ▶ Graham Sideroad; and,
- ▶ Between Morning Sideroad and Green Lane West.

Newmarket

Immediately to the south of East Gwillimbury is the Town of Newmarket. Its plan for an Active Transportation Network was adopted as Official Plan Amendment #11. Key initiatives, which the King Trails Master Plan should consider, include:

- ▶ Bathurst Street as a Primary Active Transportation Corridor (Within the ROW);

- ▶ Future Primary Active Transportation Corridor (Within the ROW) at Woodspring Avenue;
- ▶ Primary Active Transportation Corridor (off-road – Hydro Corridor) running south-east from Bathurst;
- ▶ Secondary Active Transportation Network (Off-Road) east of Bathurst at Mulock Drive.

Aurora

From just north of St. John's Sideroad south to Bloomington Sideroad, Aurora shares Bathurst Street as its western boundary. Along Bathurst Street, there are a number of key links – existing and proposed – which are highlighted in Aurora's November 2011 Trails Master Plan. These include:

- ▶ Proposed in boulevard multi-use trail/bike path (hard surface) along sections of Bathurst Street including north of Henderson to Highland, and south of McClellan, and a section south of the rail line connecting to Bloomington.
- ▶ Existing Oak Ridges Moraine Trail link at Henderson; and,
- ▶ Proposed Oak Ridges Trail preferred alignment south of Henderson.

Richmond Hill

South of the Bloomington Sideroad to the King Vaughan Road, The Township of King is bordered by Richmond Hill. Proposed on road trail connections into Richmond Hill from Bathurst Street include:

- ▶ Kingshill Road;
- ▶ Augustive Avenue;
- ▶ King Road;
- ▶ Puccini Drive; and Laurier Drive.

The potential exists for a future off-road connection to the Oak Ridges Trail, which travels through the Oak Ridges Corridor Park south of Bathurst Glen Golf Course.

Vaughan

The municipality of the City of Vaughan is south of the Township of King. Vaughan's 2007 Pedestrian and Bicycling Master Plan study identifies a number of proposed trail connection into King. These include:

- ▶ Signed cycling route along the King Vaughan Road;
- ▶ Off-road multi-use trail east of Cold Creek Road following the Humber River;
- ▶ Off-road multi-use trail following the hydro corridor;
- ▶ Signed on-road cycling route on Huntington Road;
- ▶ Off-road multi-use trail following the creek between Highway 27 and Kipling Avenue
- ▶ Signed on-road cycling route on Kipling Avenue;
- ▶ Off-road trail following pipeline east of Pine Valley Drive;
- ▶ Off-Road Trail east of Dufferin Street; and,
- ▶ Paved shoulder bike routes on Pine Valley Drive, Weston Road, Jane Street, Keelee Street, Dufferin Street and Bathurst Street.

Caledon

Caledon has over 260 kilometres of publicly accessible trails to the west of King. A key component of this system is the Humber Valley Heritage Trail that terminates at the Albion King Town Line at Old King Road. Further north, at the 19th Sideroad, the Oak Ridges Trail is a signed on-road route connecting Caledon to King. Other trail initiatives in Caledon include the Greenbelt Cycling Route, and the TRCA's Bolton Tract.

New Tecumseth

Currently there are no known trails in New Tecumseth that the King Trails Master plan should consider. The Trans Canada Trail, which travels along an abandoned rail line running north-south, is further west. Therefore, to make a connection to the Trans Canada Trail the most feasible route would be connecting to one of Caledon's trails to the west.

Bradford West Gwillimbury

Bradford West Gwillimbury's Trails System Master Plan was completed in January 2010. The plan proposes a loop around the Holland Marsh which includes a section on the Township of King's lands. The plan also proposes a waterway trail along the north side of the marsh in Bradford West Gwillimbury.

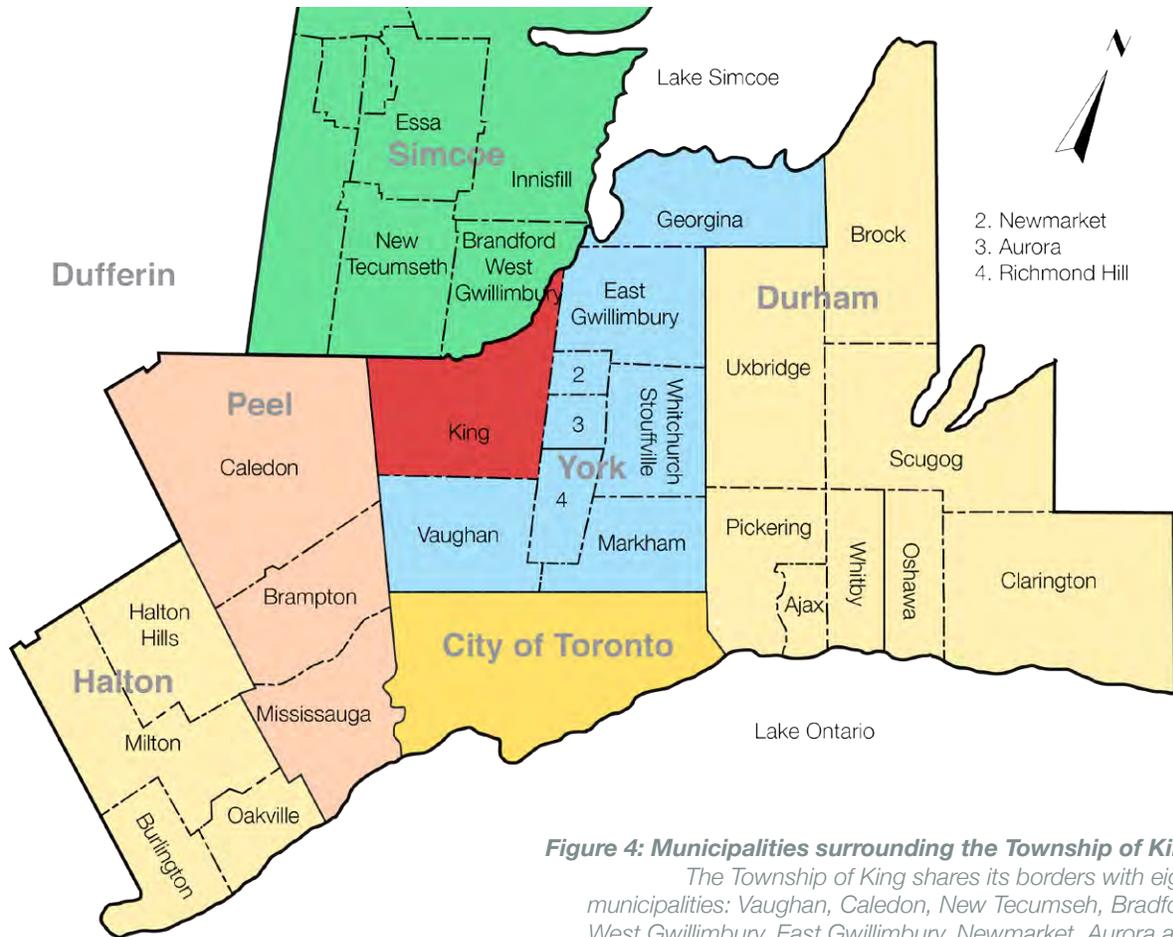


Figure 4: Municipalities surrounding the Township of King
 The Township of King shares its borders with eight municipalities: Vaughan, Caledon, New Tecumseh, Bradford West Gwillimbury, East Gwillimbury, Newmarket, Aurora and Richmond Hill.

Trail Users

Trails in the Township are of interest to a wide range of trail users. While different trail user groups have historically been able to find their own place within the Township to enjoy trails, many have found themselves to be increasingly in conflict with other trail users, landowners, or municipal bylaws. This master plan needs to set out the permitted activities throughout the trail network and establish a trail etiquette and protocol for different users. Trail user groups to be considered include:

Walkers

This is anticipated as the largest user group by far, as walking is cited over the last decade as the most popular physical activity for Canadians. It is estimated that 85% of Canadians walk for leisure and recreation purposes. Furthermore, the aging population will continue to see a shift away from more high impact recreation activities towards low impact hiking and walking. People are also taking vacations closer to home. Therefore, an extensive trail network close to the GTA will likely draw a significant number of users from King and throughout the GTA.

Hikers

Hikers are similar to walkers with the main difference being that hikers seek places that are more remote, with fewer people, and typically more challenging conditions. It will be important that the proposed trails offer a range of difficulties and scenery to cater to this group.

Cyclists / Mountain Bikers

Off road cycling / mountain biking is a growing recreation segment. Providing trails that cater to this specific user group will fill a growing niche as well as help keep riders out of more sensitive areas.

Equestrian

Historically the Township of King has been known as an equestrian/horse-friendly community. However the number of trails available to equestrian riders has diminished substantially over the last decade or two. This plan will need to look for opportunities to accommodate equestrians.

Off-Road Highway Vehicles

Off-highway vehicles (OHV) are a concern on public lands because the vehicles create safety concern, noise, disturb wildlife, damage vegetation and can create severe erosion problems. While the Township has taken steps in some locations to prevent OHV use, these vehicles can still find access by damaging the fences and gates. Providing opportunities for off-highway vehicles is not part of this plan.



Figure 5: Trail Use Symbols

There is interest from a wide range of trail user groups to use the trails in King Township

Existing Trails: Inventory and Analysis

Inventory

There are approximately 100 km of publicly accessible trails in the Township of King. This includes trails managed by the Oak Ridges Trail Association, Township of King, Toronto and Region Conservation Authority, Lake Simcoe Region Conservation Authority, Nature Conservancy of Canada, University of Toronto, Seneca College, and Ontario Nature. In addition there are other trail and active transportation routing opportunities to be considered including the Greenbelt Cycling Route and Utility Corridors and Unopened Road Allowances. The following provides a summary these trails and key considerations for this master plan.

Existing Trails in King

- 1 Schomberg
- 2 Oak Ridges Trail
- 3 Cold Creek Conservation Area (TRCA)
- 4 Nobleton Trails
- 5 Humber Trails (TRCA)
- 6 King City Trails
- 7 Seneca College
- 8 Centennial Park (Mountain Bike Trails);
- 9 Thornton Bales Conservation Area (LSRCA)
- 10 The Koffler Scientific Reserve at Jokers Hill (University of Toronto)
- 11 Cawthra Mulock Nature Reserve
- 12 Pottageville
- 13 York Region
- 14 Goldie Feldman Nature Reserve (Happy Valley)
- 15 Humber Source Woods (TRCA)

Future Neighbouring Trails

- 16 Bradford West Gwillimbury Multi-Use Trail
- 17 Bolton Tract (TRCA)
- 18 Nashville Tract (TRCA)

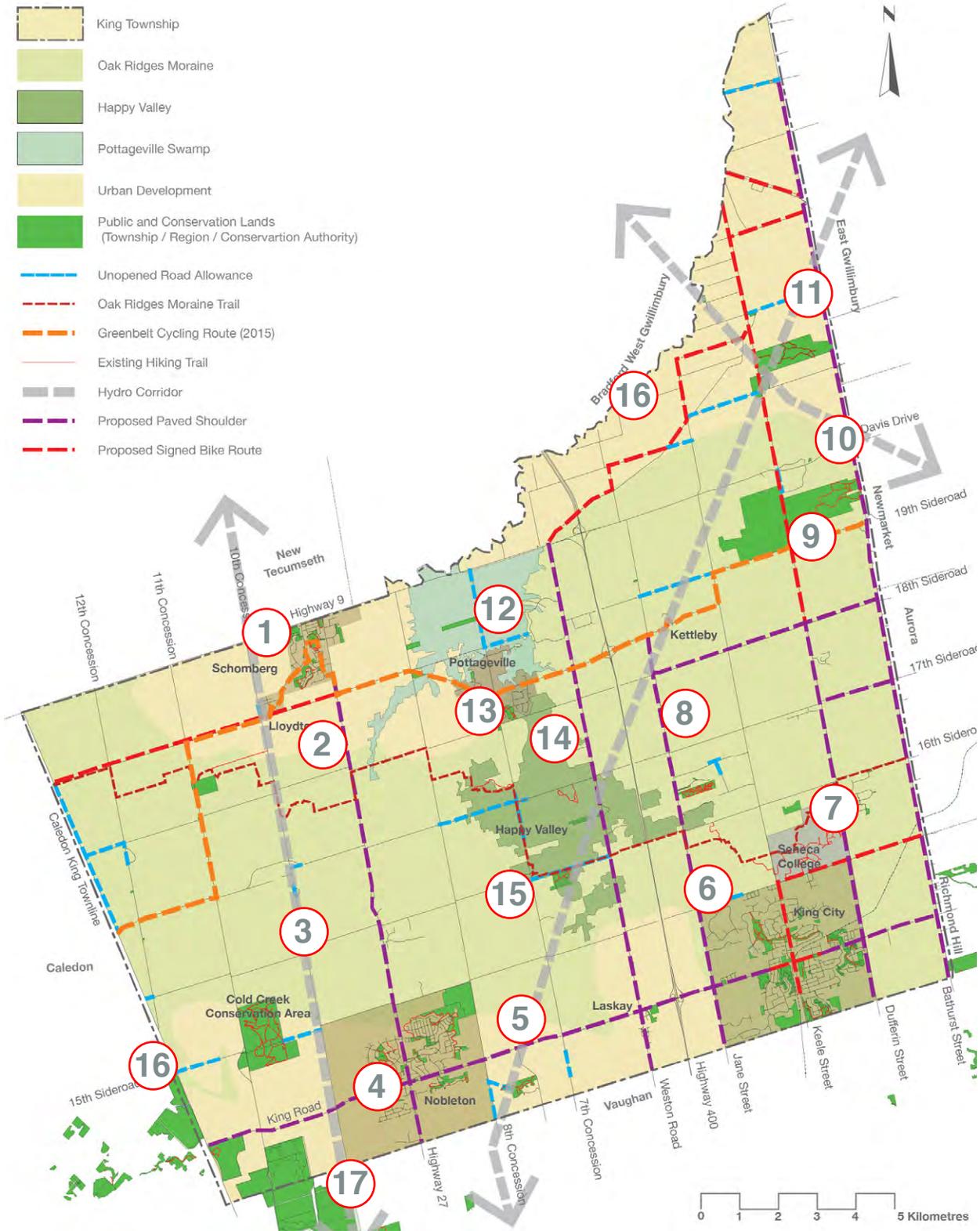


Figure 6: Existing Trails in the Township of King
 There are fifteen (15) existing trails in the Township of King.

Oak Ridges Trail

The Oak Ridges Trail is 275 kilometres in length extending from Mono Mills in the west to the Northumberland Forest in the east. In the Township of King the trail is approximately 36 kilometres long with both on and off-road sections of trail. The trail is designed as primarily a hiking trail, but other uses such as mountain biking and equestrian uses are permitted in sections determined by the land owner. Signage regarding permitted uses is provided on the trail.

The trail network was developed by and continues to be revised and maintained, promoted and supported by the Oak Ridges Trail Association (ORTA). As described on the association's website (oakridgestrail.org). ORTA is a non-profit organization started in 1991 by a group of volunteers. They gathered through the cooperation of STORM (Save the Oak Ridges Moraine), the Metropolitan Toronto and Region Conservation Authority and Hike Ontario and developed the idea of a system of public recreational trails along the full length of the Moraine. They then formed The Oak Ridges Trail Steering Committee which evolved into the Oak Ridges Trail Association (ORTA) in 1992.

The main objective of the Association is to develop and secure the Oak Ridges Trail, "...thereby promoting an appreciation and respect for the Moraine's ecological, cultural and scenic integrity, with the aim of retaining a trail corridor in its natural state." - Oak Ridges Trail Guidebook 1997



Oak Ridges Moraine Trail

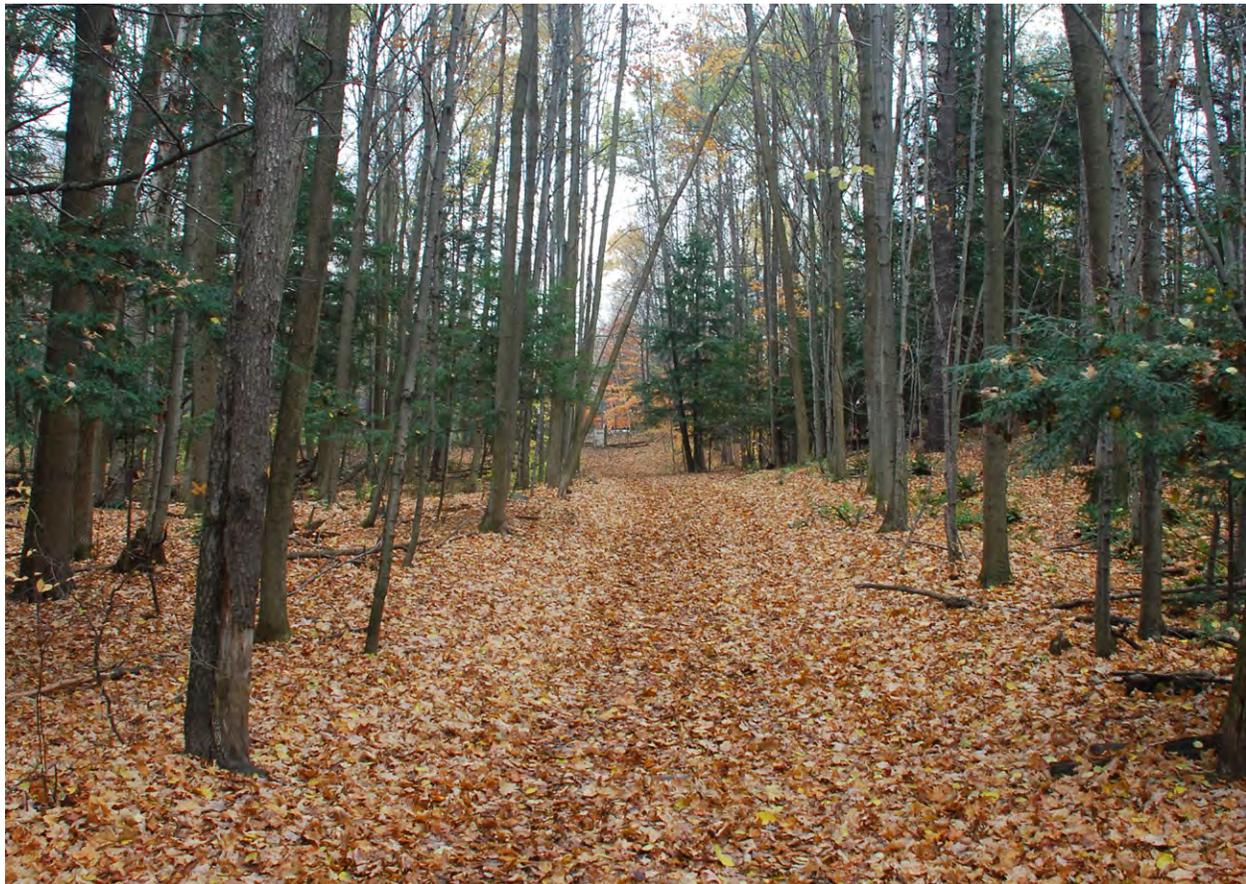


Figure 7: (top) Map of Oak Ridges Trail
 The Oak Ridges Trail is 280 kilometres long extending from Mono Mills in the west to the Northumberland Forest in the east.

Image source: Oak Ridges Trail Association.

Figure 8: (bottom) Oak Ridges Trail
 The Oak Ridges Trail at the 7th Concession in King.

Township of King

The Township of King owns and manages a number of trails in King City, Nobleton, Schomberg and Centennial Park located north of King City.

King City Trails

The King City Trails are located in the valleyland areas of King City. There are approximately eight (8) kilometres of trails. The trails surface is both limestone screenings with some areas being natural surface.

Centennial Park (Mountain Bike Trails);

Located at 14855 Jane Street between the 16th and 17th Sideroad, Centennial Park is a 17 ha park with five (5) kilometres of winding singletrack in a stacked loop. The trails are primarily for mountain biking and hiking. The trails are signed for beginner, intermediate and advanced. At the entrance there is a parking lot / staging area.

Nobleton Trails

Nobleton has approximately eight (8) kilometres of limestone, asphalt and concrete trails. The network links the Township's open space system as well as a section of land owned by the Toronto and Region Conservation Authority.

Schomberg Trails

The community of Schomberg has approximately four (4) kilometres of concrete, asphalt, limestone and natural surface trails. These trails connect through the open spaces network in the community and around the ecologically sensitive Dufferin Marsh.

Pottageville Trails

Within the Pottageville Community Park on the 18th Sideroad are a series of looping trails (north and south of Cook Drive) totalling about one (1) km in length. These are both limestone and natural surface trails.



Figure 9: Centennial Park
Single track trails in Centennial Park
Image source: www.ontariobiketrails.com



Figure 10: King City Trail Map
 The King City Trails trail map identifies access points, trail regulations and points of interest.

York Region

York Region owns and manages over 2,300 ha of forests. These tracts provide opportunities for recreation, ecological restoration, and sustainable forest management initiatives. In King, one forest tract is managed in the Happy Valley Forest.

Access to this parcel is from the 7th Concession. It hosts an approximately 1.2 kilometre natural surface trail which is a popular trail for equestrian riders. Preliminary planning is underway to improve the trail's alignment to address existing vegetation, slopes and provide parking.



Figure 11: York Region Forest Tract
Located west of the 7th Concession between the 17th and 18th Sideroad, this trail is a side trail to the Oak Ridges Trail used by equestrian riders.

Toronto and Region Conservation Authority

Cold Creek Conservation Area

West of Nobleton is the Cold Creek Conservation Area. It is owned by the Toronto and Region Conservation Authority and managed by the Township of King. It is 190 hectares in area within the Humber River watershed with a portion of the property within the "Natural Linkage" policy area of the Oak Ridges Moraine. The parcel is significant due to its unique natural features including its mixed conifer swamp forest that contains black spruce (rare in Southern Ontario) and is home to a wide array of plant and animal species. The site provides outdoor education, cultural and heritage experiences and recreation and includes a network of trails for various abilities.

Seven trails and a boardwalk provide almost seven kilometres of pathways through the conservation area. At the centre of Cold Creek are a visitors centre, education centre, high ropes course and parking.

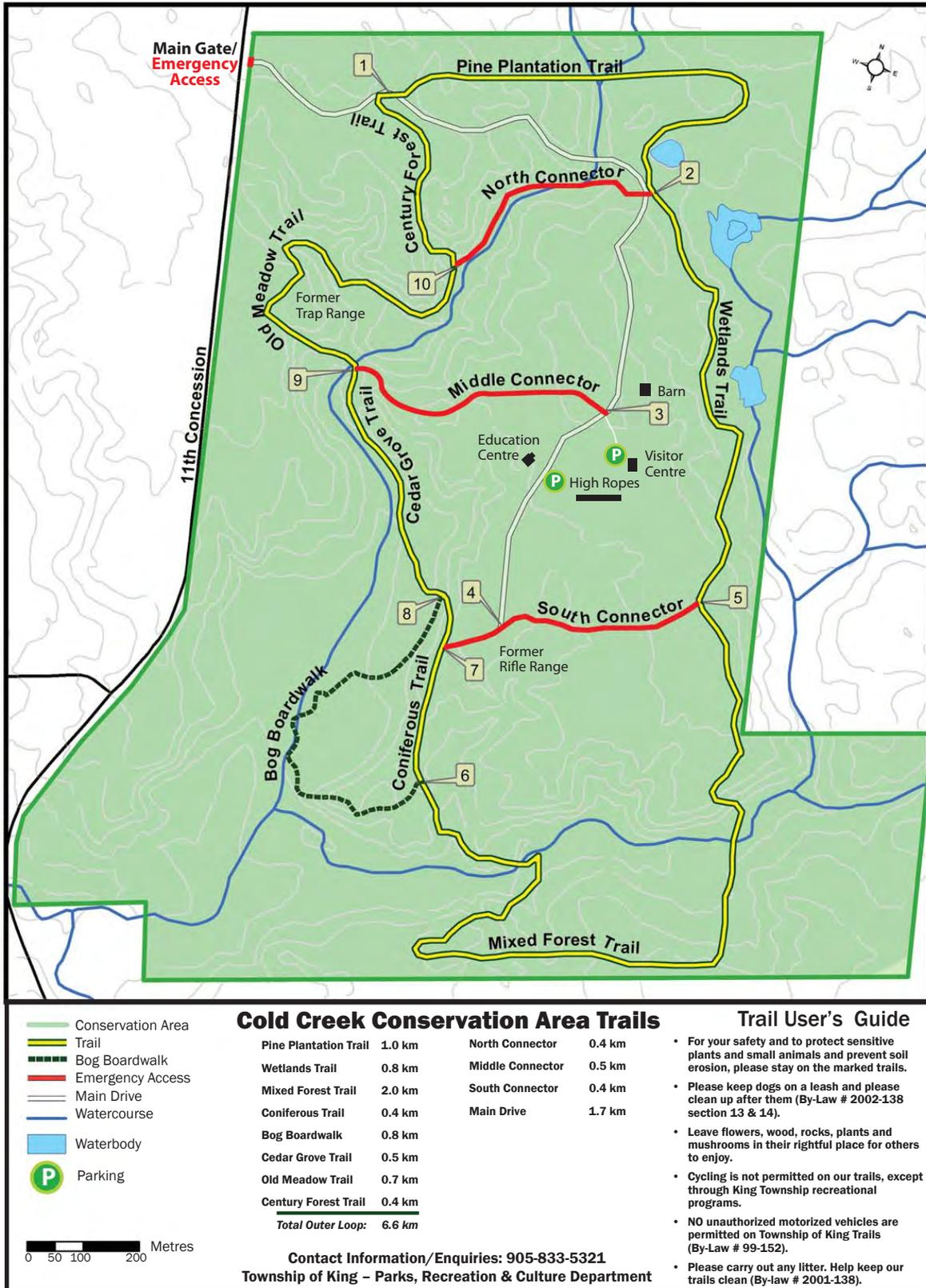


Figure 12: Cold Creek Conservation Area Trail Map
 Cold Creek Conservation Area is owned by the TRCA and managed by the Township of King

Bolton Tract (BRMT)

TRCA Resource Management describes the (BRMT) as an 800 hectare area of greenspace in the Town of Caledon, Region of Peel. It includes TRCA owned and managed properties along the Humber River valley, south of Old Church Road, north of King Street and west of Highway 50. Within this area is the Humber Valley Heritage Trail.

The draft trail plan for this area proposes hiking trails immediately west of the King-Caledon line with a trailhead at Columbia Way. This provides an excellent opportunity to link the trail systems of both the Town of Caledon and the Township of King.

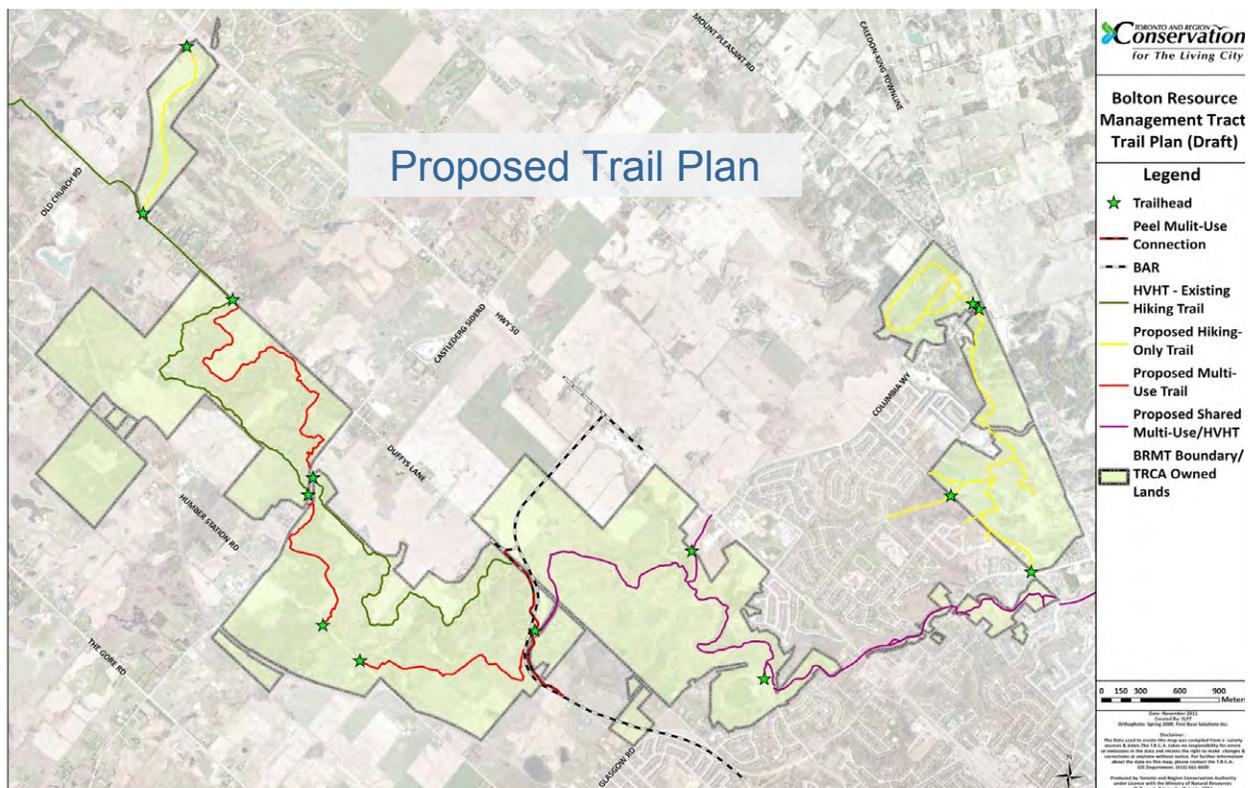


Figure 13: Bolton Resource Management Tract
The Bolton Tract is a collection of properties owned by the TRCA. A series of trails are proposed which will be in close proximity to King's western border.

Image courtesy of the TRCA

Nashville Resource Management Tract (NRMT)

The NRMT is 720 hectares owned by TRCA. 203 of these hectares are in the Township of King within the Humber River Watershed. The property is bordered by King Road to the north, Nashville Road to the south, Albion Vaughan Road to the west and Highway 27 to the east.

NRMT is ecologically diverse supporting a variety of wildlife and is considered an integral part of TRCA's natural heritage system.

TRCA is in the process of developing a trail system that allows visitors to travel throughout the property, and to protect and promote the unique natural and cultural features of the NRMT. Preliminary plans are considering a network of trails that accommodate a variety of users and offers different trail types, lengths and difficulties including hiking, cycling and equestrian.

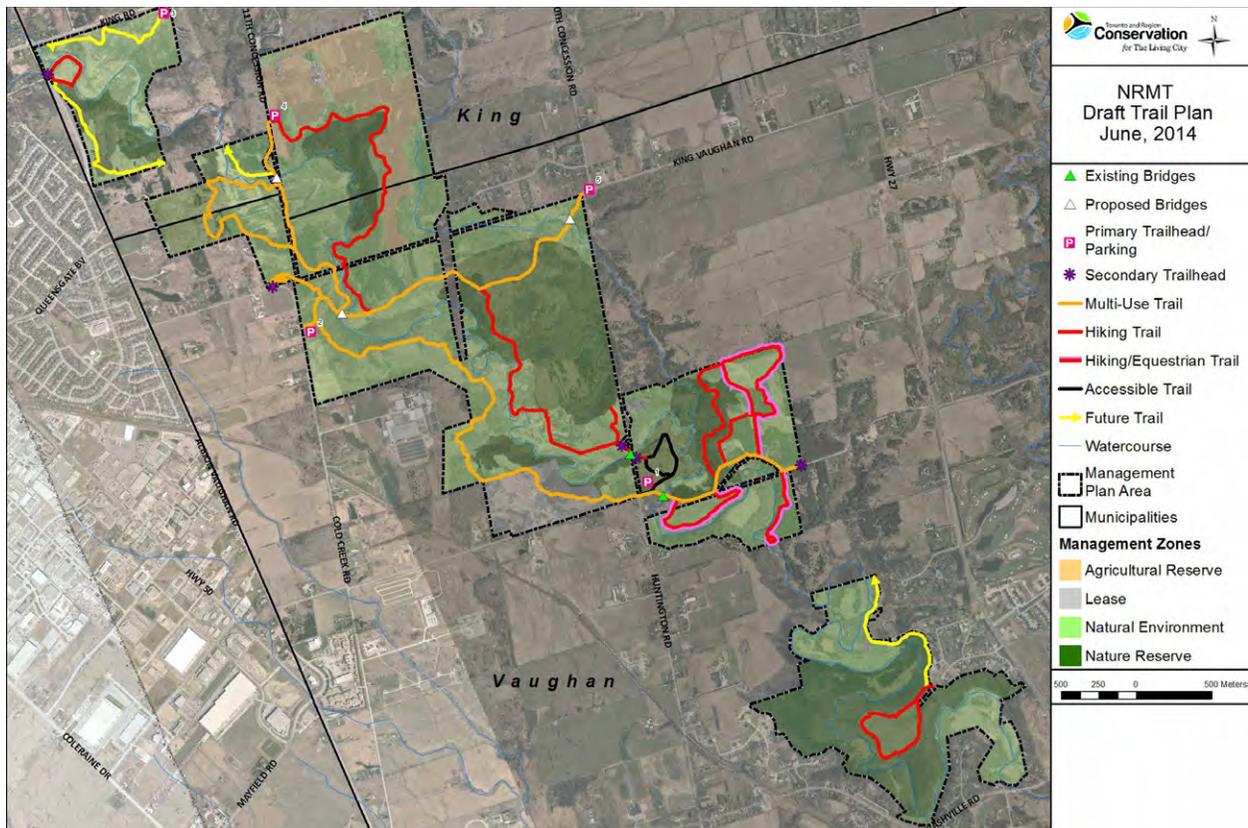


Figure 14: Nashville Resource Management Tract
 The Nashville Tract is a collection of properties owned by the TRCA. A series of trails are proposed which will be south of Nobleton just inside the City of Vaughan.

Image courtesy of the TRCA

Humber Source Woods (Happy Valley) Property Management Plan

The Humber Source Woods is a 21.9 hectare lot that falls within the Oak Ridges Moraine Natural Core Area and partially within the Happy Valley Forest ANSI. The NCC and TRCA set out a property management plan with the purpose of preserving the Humber Source Woods for future generations.

The plan is based on the limited available TRCA property, ecological, cultural heritage and forestry data. Therefore, a significant portion of the plan is to complete these inventories in order to establish permanent management zones and trail locations.

The plan proposed five phases of TRCA work:

- ▶ Phase One: Site securement, estimation of work required and preliminary inventory;
- ▶ Phase Two-Three: Development of background reports, conceptual management zones and preliminary trail and communications plans;
- ▶ Phase Four: Establishment of key steps towards implementation, and;
- ▶ Phase Five: Formation of framework for ongoing land management and care.

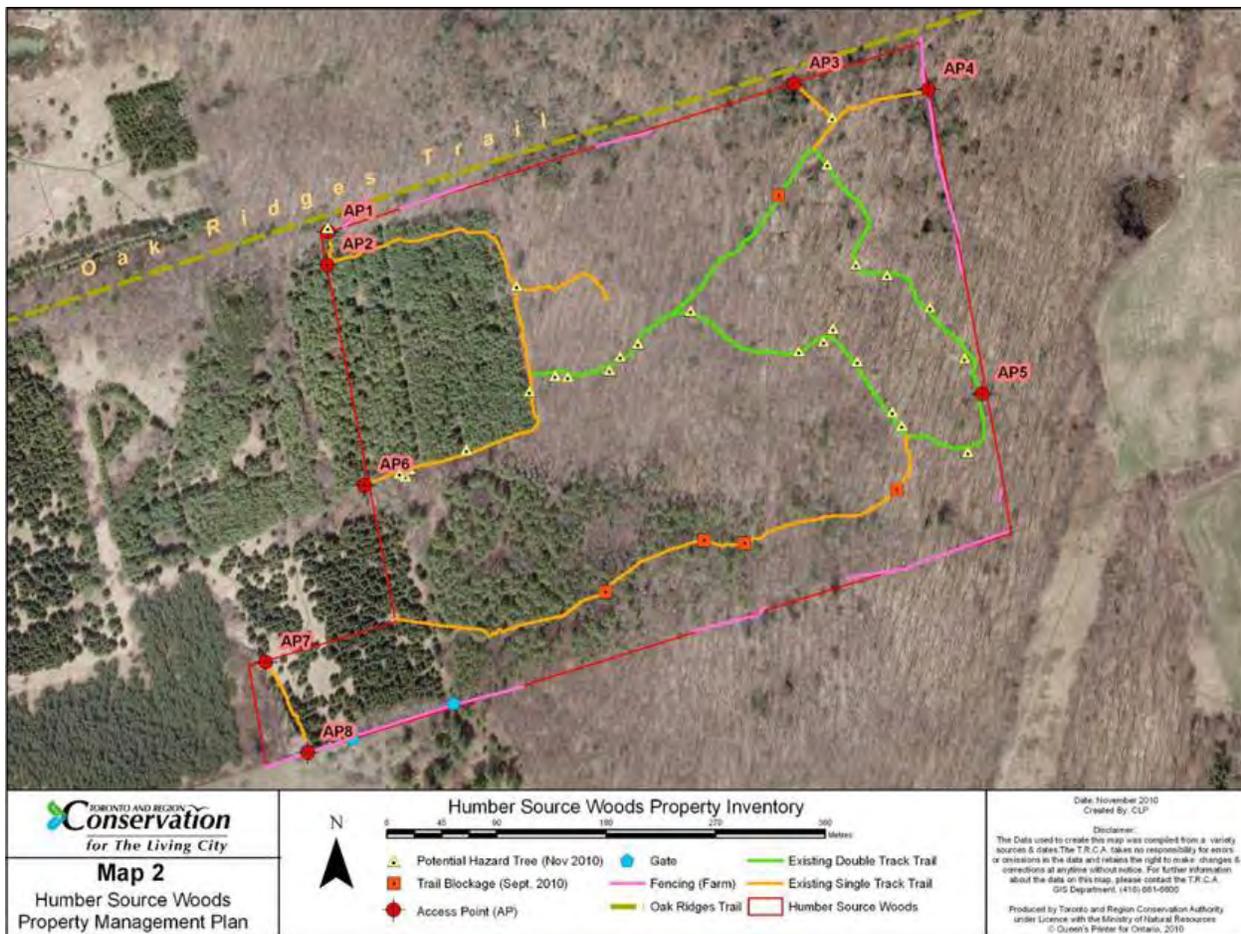


Figure 15: Humber Source Woods Property Management Plan

The Humber Source Woods is a 21.9 hectare lot that falls within the Oak Ridges Moraine Natural Core Area and Happy Valley ANSI.

Image courtesy of the TRCA

Lake Simcoe Region Conservation Authority

Pottageville Swamp

The Pottageville Swamp is a Provincially Significant Wetland that supports an abundance of wildlife habitat. It is located within the 7th and 8th concessions between the Lloydtown-Aurora Road (York Road 16) and Highway 9th. There are currently no existing formal trails in the swamp. In fact the Conservation Authority has no facilities in this location for visitor use. The Township of King also owns a few parcels within the Pottageville Swamp including a number of unopened road allowances.

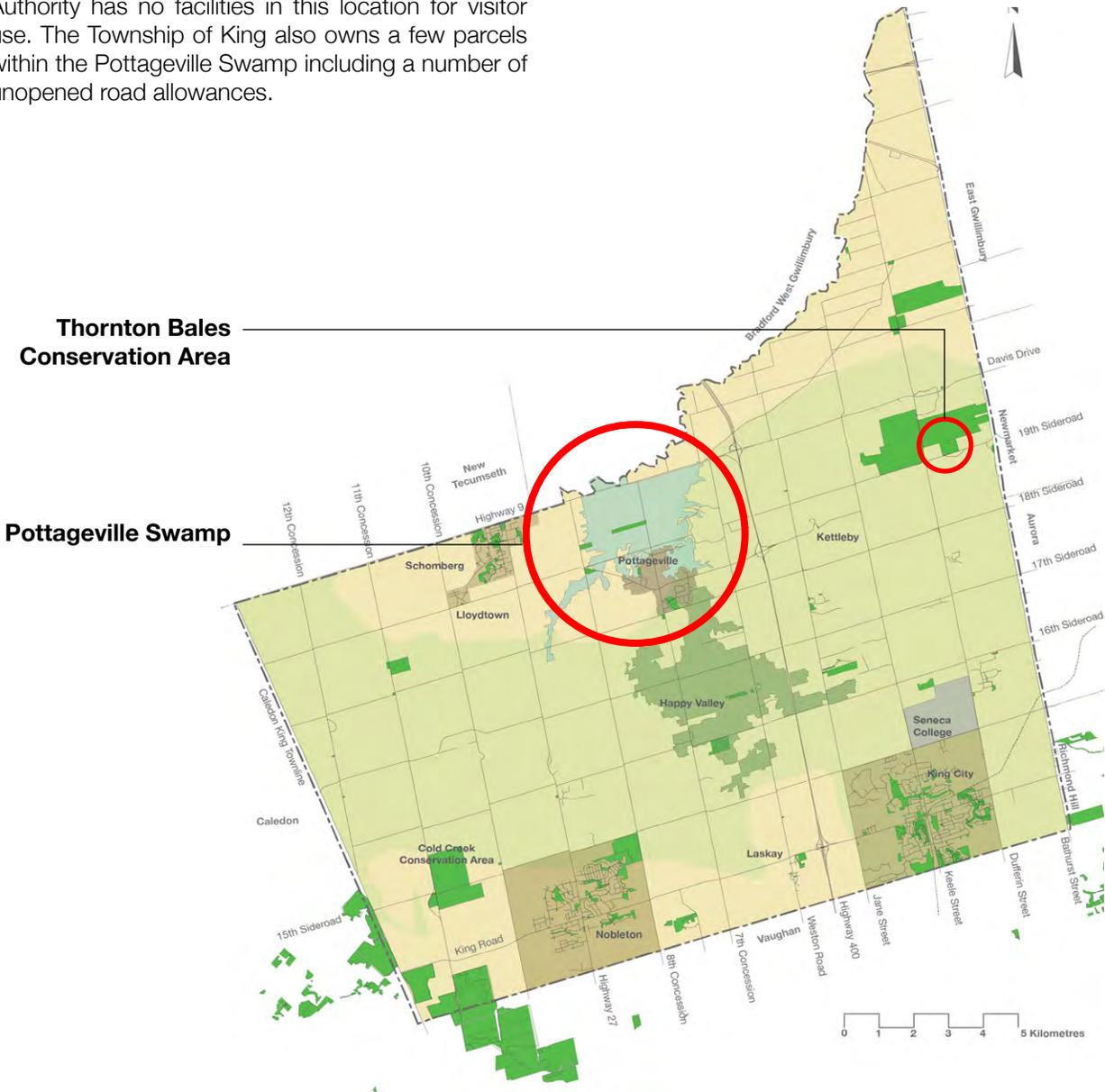


Figure 16: Pottageville Swamp
The Pottageville Swamp is located in the north-central portion of the Municipality.

Thornton Bales Conservation Area

Thornton Bales Conservation Area is famous for its steep slopes and rugged beauty. This Area of Natural and Scientific Interest (ANSI) is part of the Oak Ridges Moraine, and has an elevation that drops 54 metres from its southwest corner to its northern boundary. Nicknamed “The 99 Steps”, this conservation area is best suited to people who are in good physical condition and enjoy a challenge. Water bottles and comfortable footwear are strongly recommended for hikers targeting these woodland trails. Among the wildlife that can be found in this ravine-like setting are pileated woodpeckers and white-tailed deer.

The Koffler-Bales side trail is maintained by ORTA through the Thornton Bales Conservation Area and the Koffler Scientific Reserve at Jokers Hill.



Figure 17: (top) Thornton Bales 99 Steps

Figure 18: (middle) Koffler-Bales Side Trail through Thornton Bales

Figure 19: (bottom) Thornton Bales access from the 19th Sideroad.

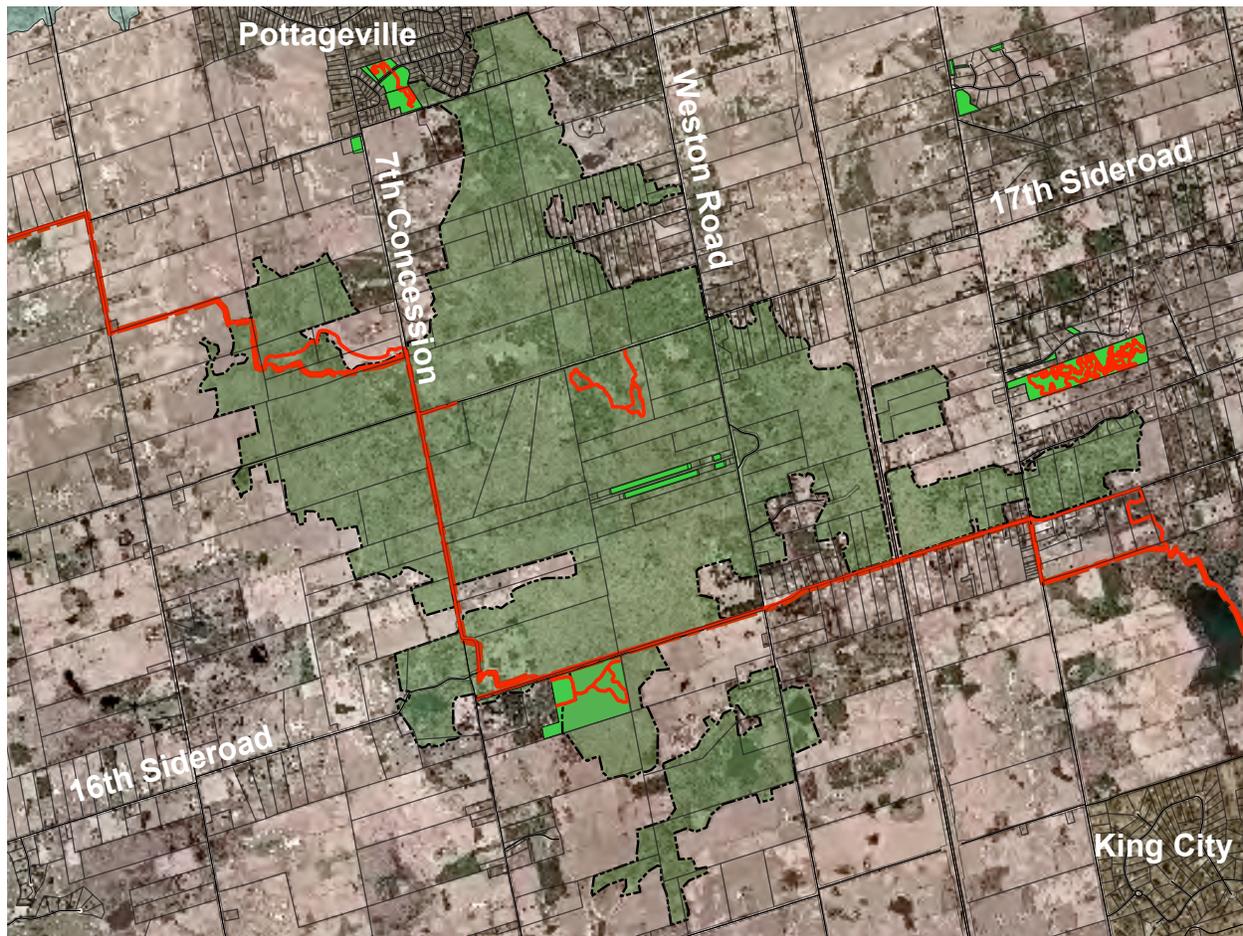
Happy Valley Forest

Located at the centre of King Township is the Happy Valley Forest. It is one of the largest intact hardwood forests on the Oak Ridges Moraine. The Forest is classified as a provincially significant Area of Natural and Scientific Interest (ANSI) by the Ontario Ministry of Natural Resources and is protected by the Oak Ridges Moraine Conservation Plan. It is over 1000 ha in size consisting of an upland forest on steeply rolling topography, old field habitats, several creek valleys, various wooded swamps and wetland areas.

The Forest is divided between two conservation authorities, Lake Simcoe Region to the north and the Toronto and Region to the south. Landowners within the forest include both conservation authorities,

the Township of King, York Region, the Nature Conservancy of Canada and Private Land Owners.

In addition to the Oak Ridges Trail, York Region's property, and the 7th Concession trail discussed previously, a number of other informal trails have been historically used for equestrian riding. Some of these trails pass onto private property and ownership is not clearly identified when following these trails. Therefore a thorough review and assessment of these trails for hiking and equestrian use is needed.



- Formal Trails
- Happy Valley

Figure 20: Happy Valley Forest
 The Happy Valley Forest is over 1000 ha in size consisting of a number of public and private land holdings including the Township of King, York Region, TRCA and the Nature Conservancy of Canada.

Nature Conservancy of Canada

The Nature Conservancy of Canada (NCC) has acquired approximately 113 hectares of land in the Happy Valley forest for its preservation through land purchases, land donations and conservation easements.

In addition to the informal trails on site, in the fall of 2014, the NCC finished and opened a new 1.8 kilometre trail in a section of the forest at 4093 17th sideroad referred to as the Goldie Feldman Nature Reserve. Access to the Trail is from the 17th Sideroad west of Weston Road.



Figure 21: Images of the Goldie Feldman Nature Reserve

University of Toronto

The Koffler Scientific Reserve at Jokers Hill

The University of Toronto's Koffler Scientific Reserve (KSR) at The Koffler Scientific Reserve at Jokers Hill is an internationally recognized site for cutting-edge research and education in biodiversity, ecology and conservation biology. The property is located north of the 19th Sideroad and west of Bathurst Street.

General Mann, one of the property's first owners bulldozed a network of bridle trails that attracted the equestrian community helping The Koffler Scientific Reserve at Jokers Hill resist the pressures of development during the post-World War II building boom. Equestrian use is no longer permitted on the site, but the trails remain in partnership with the Oak Ridges Trail Association, York Region and King Township. The University of Toronto has several routes open on the Reserve's eastern end for public enjoyment.

There are three trails that loop through the eastern portion of the Koffler Scientific Reserve:

Green Trail

This trail runs through a red pine plantation established in the 1960s. It rises from the Bathurst entrance to a scenic overlook of Newmarket.

Red Trail

The red trail follows rolling terrain through a restored woodlot and a naturally-recovering forest of oak, maple, beech and yellow birch.

Blue Trail

This trail extends from the Bathurst Street entrance through to the Thornton-Bales Conservation Area and "the 99 steps". Passing through regenerating forest, the trail travels past the east pond and through a maple sugar bush. This trail is a spur of the Oak Ridges Trail, and is maintained by the Oak Ridges Trail Association.



Figure 22: (top) Image of Bathurst Street trailhead at The Koffler Scientific Reserve at Jokers Hill

Figure 23: (bottom) Trail at The Koffler Scientific Reserve at Jokers Hill

Jokers Hill Hiking Trails

- GREEN LOOP:** 1.5 KM
- RED LOOP:** 3.0 KM
- BLUE LOOP:** 1.7 KM
- BLUE to Thorton-Bales:** 2.0 KM

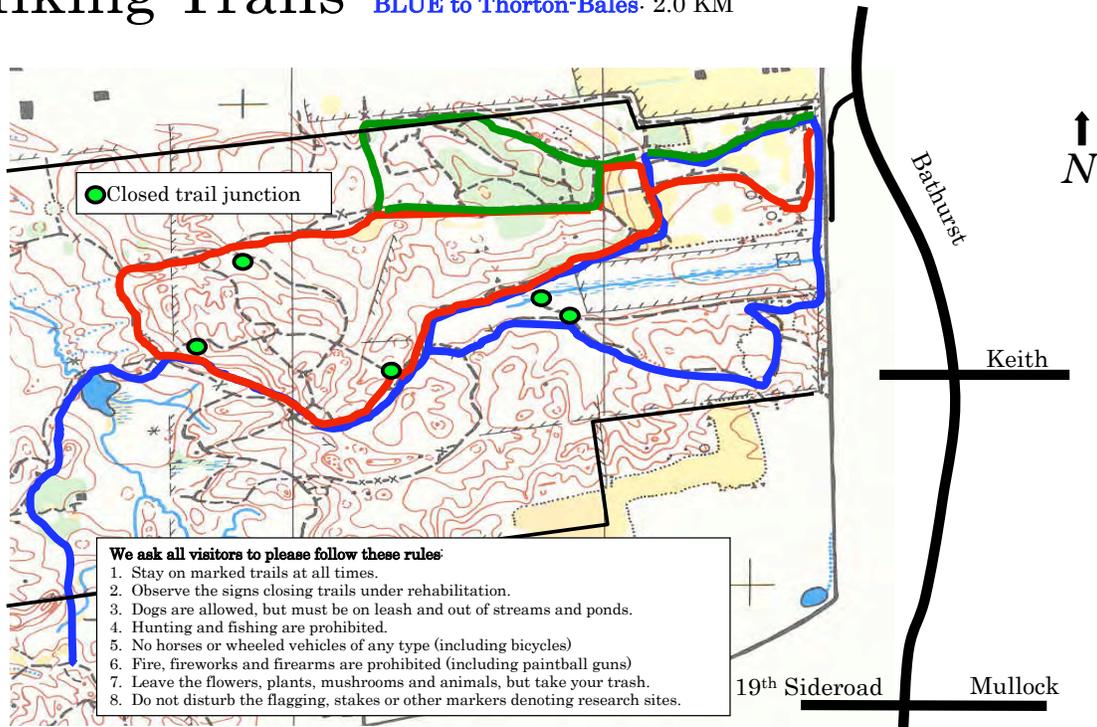
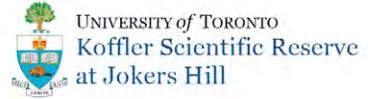
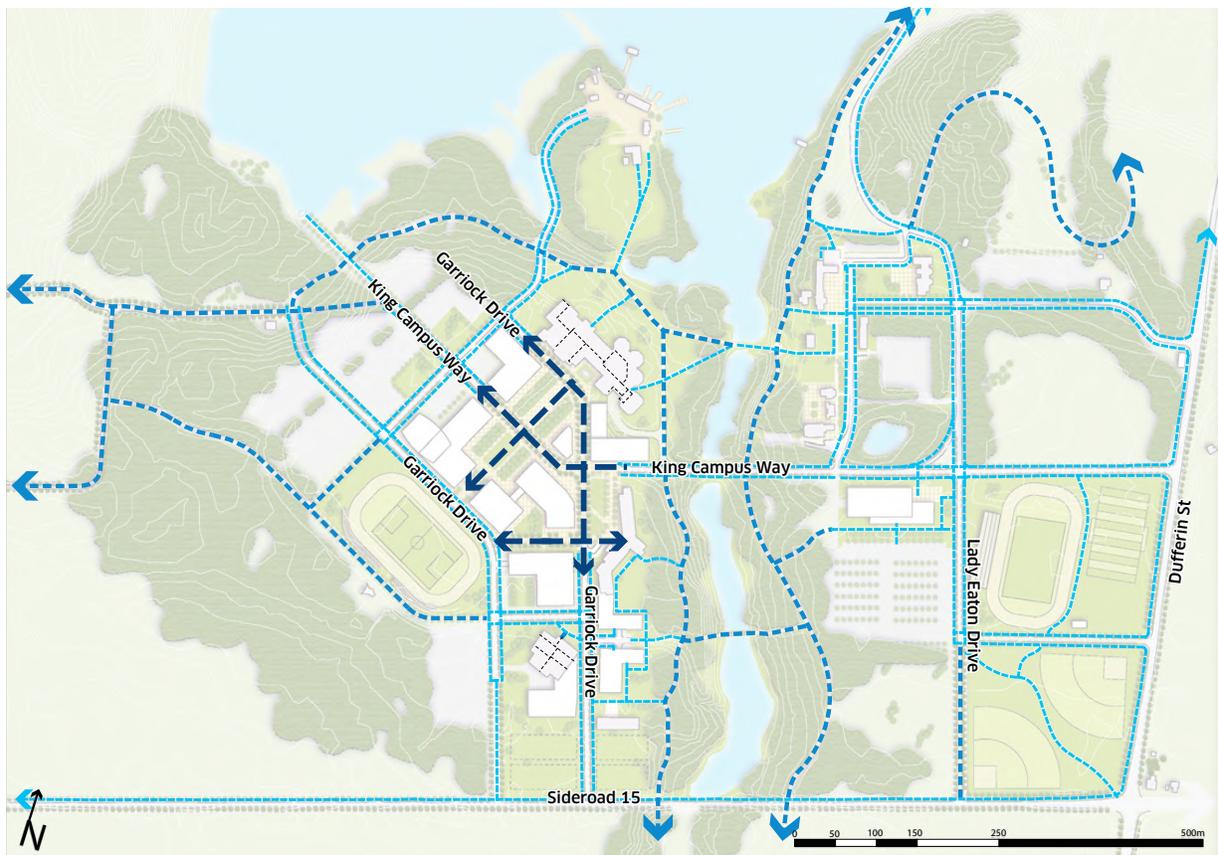


Figure 24: (top) Trail Map for The Koffler Scientific Reserve at Jokers Hill

Seneca College

The Ontario Trails Council website describes the trails at Seneca College as “One of the best kept hiking secrets in Ontario” The trails at Seneca allow hikers to experience old growth forests, rolling hills, meadows, wetlands and the historic pathways of Eaton Hall. The Oak Ridges Trail also passes through the campus. In addition to the ORTA trail, Seneca has approximately 14 km of hiking trails, including one that meets accessibility standards.

In 2012, a new master plan for the campus was prepared. Pictured below the plan provides a series of hiking trails and pedestrian routes through the campus.



KING CAMPUS / FIGURE #2.53 - PEDESTRIAN AND CYCLING MOVEMENT

LEGEND

-  Main Pedestrian Spine
-  Trails
-  Sidewalks and Pathways

Figure 25: Pedestrian and Cycling routes on the King Campus Master Plan
 The 2012 Campus Master Plan prepared by Dialog depicts a series of sidewalks and pathways through the campus.

Ontario Nature

Cawthra Mulock Nature Reserve

Located in the northeast corner of King, just north of the Oak Ridges Moraine, is the Cawthra Mulock Nature Reserve. The 108 hectare property is a key natural area in the York Region Greening Strategy. The property includes a large tract of mature hardwood and mixed forests, a small wetland area and two creeks. Its diverse landscape acts as a refuge to a variety of wildlife including white-tailed deer, red fox, great blue herons, red-tailed hawks and great-horned owls.

The reserve hosts approximately eight kilometres of well-marked trails (4 loops), with a series of interpretive signs which highlight some of the property's special features. Access to the trails from the west just south of Ansnorvledt immediately across from 18580 Dufferin Street and from the east at #18462 Bathurst Street north of Miller's Sideroad.



Figure 26: (top) Trail map at the Cawthra Mulock Nature Reserve

Figure 27: (bottom) View on the trail at the Cawthra Mulock Nature Reserve

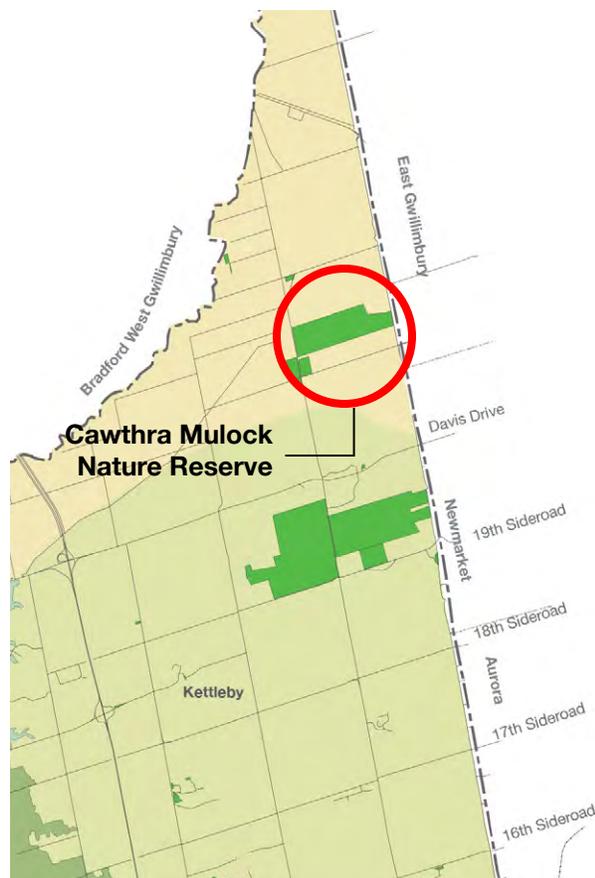


Figure 28: (left) The Cawthra Mulock Nature Reserve is located between Bathurst Street and Dufferin Street, north of Miller's Sideroad.

Waterfront Regeneration Trust

The Greenbelt Route

Waterfront Regeneration Trust is the project lead for the Greenbelt Route initiative to be launched in the Spring of 2015. The route will create a 460 kilometre provincial cycling route connecting Northumberland County to Niagara Region. The Route will showcase communities en route and provide links to urban centers along the Greenbelt. It will also have several north-south connections to the 1,400 kilometre Waterfront Trail, including York Region's proposed future Lake to Lake Route. Together, the connected trails will form a regional loop that encompasses a significant part of Lake Ontario and its watershed.

In King Township, the signed on-road cycling route will run east-west through King from 17th sideroad, north of the 11th Concession, east on the 19th Sideroad, through Schomberg, east on Lloydtown-Auroa Road to Pottageville and Kettleby, north on Keele Street, east on 19th Street to Newmarket.



Figure 29: Map of Greenbelt Route through the Township of King

Hydro Corridors and Unopened Road Allowances

Hydro Corridors

Three hydro corridors pass through King. Some trails, such as the Cawthra Mulock Nature Reserve use the hydro corridors, while many corridors are still used for agricultural purposes and are not appropriate for trail use at this time. However, should the land use change and development take place in the vicinity of these corridors, they should be considered for incorporation into the Township's trail network. Therefore, where appropriate hydro corridors are identified as a potential opportunity for trails over the long term.

Unopened Road Allowances

There are a number of unopened road allowances owned by King Township. These corridors provide an excellent opportunity to expand the trail network throughout the Township without having to acquire land. The trail concept detailed in Part 2 of this master plan makes use of many of these unopened road allowances.



Figure 30: Hydro corridor in Cawthra Mulock Nature Reserve

Community and Stakeholder Input Summary

Community and stakeholder consultation has included the following:

- ▶ Stakeholder Working Session;
- ▶ Stakeholder Meetings;
- ▶ Public Meeting #1;
- ▶ Online Survey;
- ▶ Presentation to Council;
- ▶ Public Meeting #2;
- ▶ Stakeholder Meeting #2; and,
- ▶ Follow-up meetings with various stakeholders.

Input from these various sessions has been incorporated into the final master plan.

Stakeholder Working Session

On September 10, 2014, a working session was held in Schomberg with representatives of groups involved in trails in the Township. Groups represented included:

- ▶ Nature Conservancy of Canada;
- ▶ King City Trails Committee;
- ▶ Cold Creek Stewardship;
- ▶ Saddleback Farm;
- ▶ King Trail Riders;
- ▶ King Equestrian Voice;
- ▶ Koffler Scientific Reserve; and,
- ▶ Ontario Trails Council.

Discussion focussed on gaps in the trail inventory presented, key issues and possible future trail connections.

Stakeholder Meetings

Separate meetings with public agencies involved in trails throughout the Township were consulted in September and October. Consulted groups include:

- ▶ Toronto and Region Conservation Authority;

- ▶ Lake Simcoe and Region Conservation Authority;
- ▶ York Region; and,
- ▶ Oak Ridges Trail Association.

Public Meeting #1

On October 22, 2014 the first of two public meetings was held. The meeting began with a presentation of the project intent, existing conditions / trail inventory, opportunities, and preliminary recommendations on potential improvements. The second half of the meeting involved a group discussion around a plan to identify gaps in information and potential opportunities. Images of the slides presented and the presentation panels are contained in the Appendix.

Online Survey

A survey on trail use and improvement priorities in King was posted online from December 4th, 2014 to February 28, 2015. Ninety-eight respondents answered 6 questions. The summarized results are presented on the following pages.

Some of the key results gathered from the survey include:

- ▶ The most popular trails in King include the Oak Ridges Trail, King City Trails and Cold Creek Conservation Area;
- ▶ Hikers and walkers are the primary trail user groups;
- ▶ Trails are used all year round;
- ▶ A large majority of trail users access the trails via automobile; and,
- ▶ Users of the King City Trails access these trails from Keele Street.

The summarized results for each of the six questions is provided on the following pages.

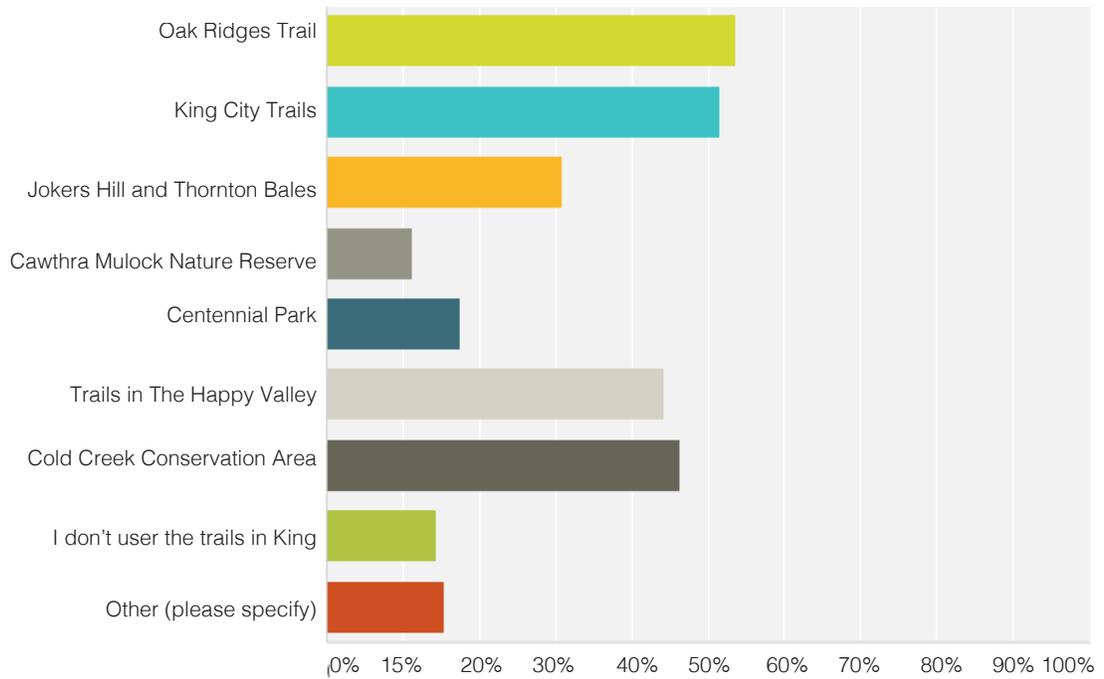


Figure 31: Question 1 Survey Results
Which trails in King Township do you use?

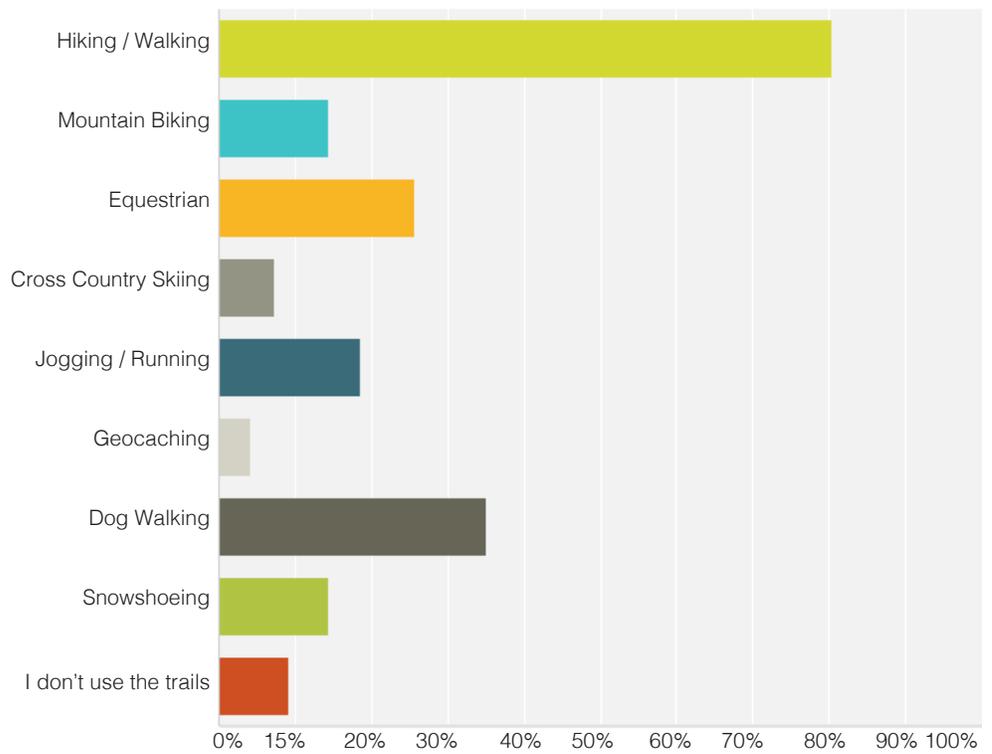


Figure 32: Question 2 Survey Results
How do you use the trails in King Township?

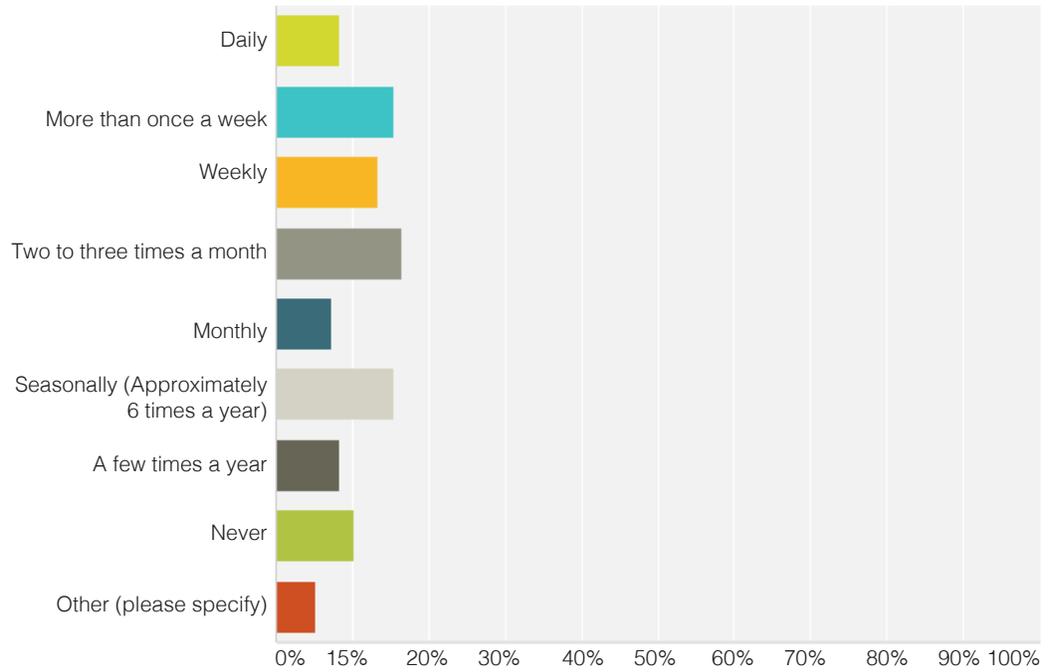


Figure 33: Question 3 Survey Results
Roughly how often do you use the trails in King Township?

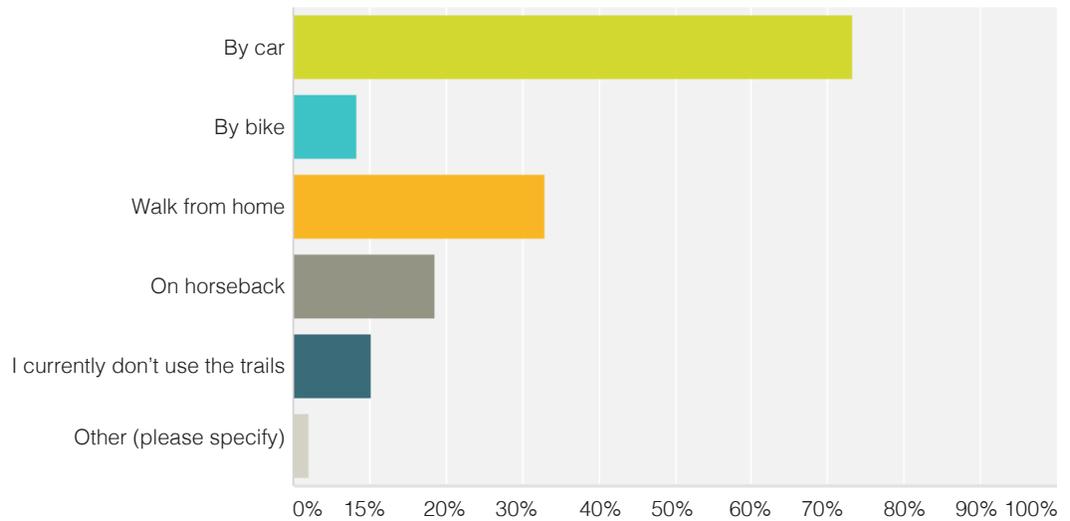


Figure 34: Question 4 Survey Results
How do you access the trails?

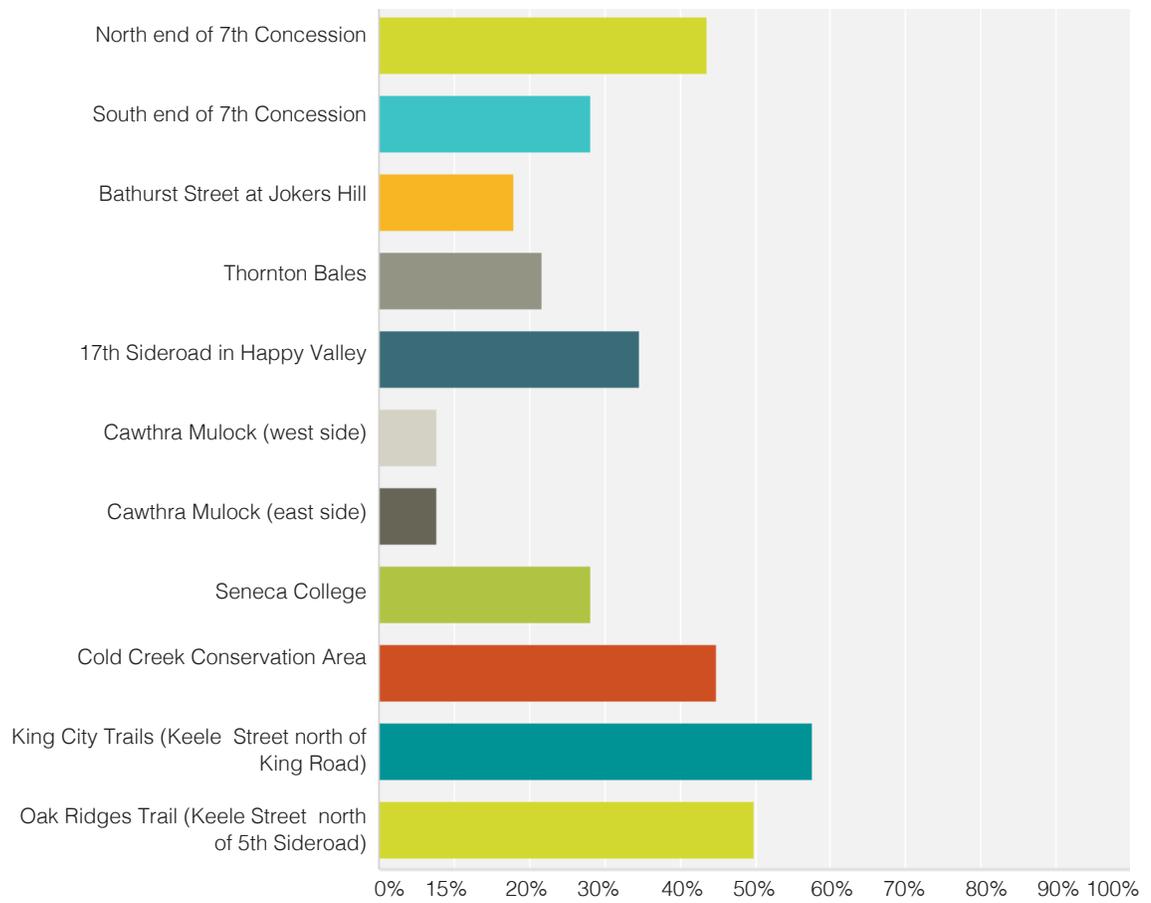


Figure 35: Question 5 Survey Results
Where do you access the trails from?

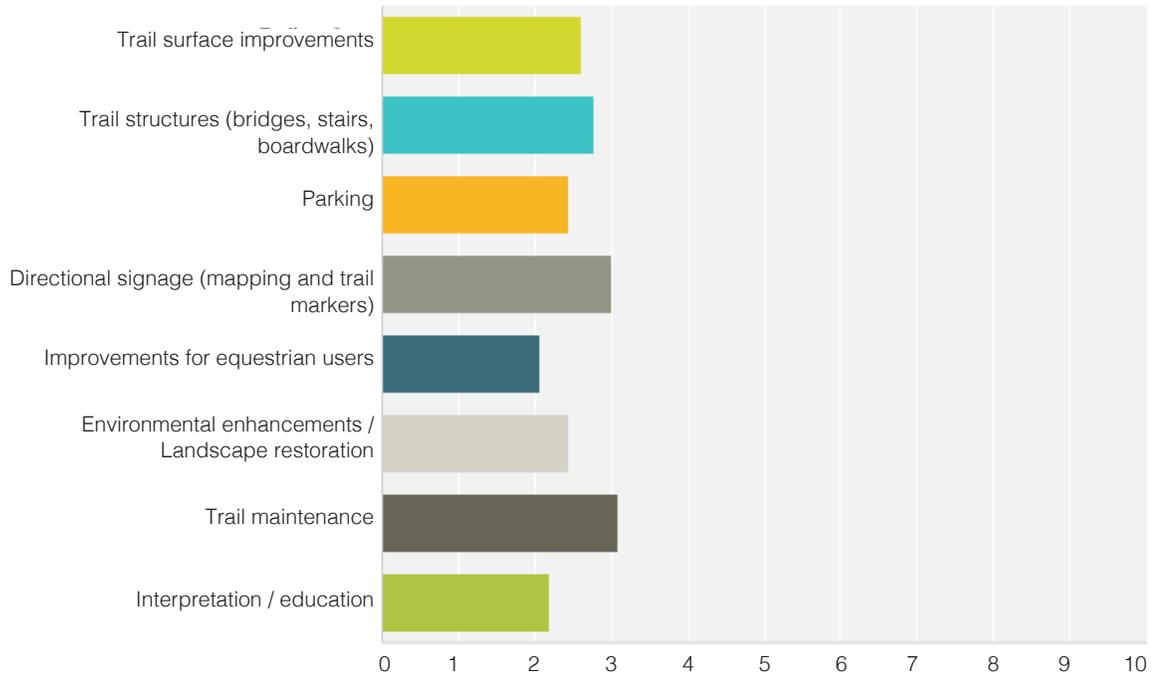


Figure 36: Question 6 Survey Results
Please indicate the importance of the following trail improvements.

Presentation to Council

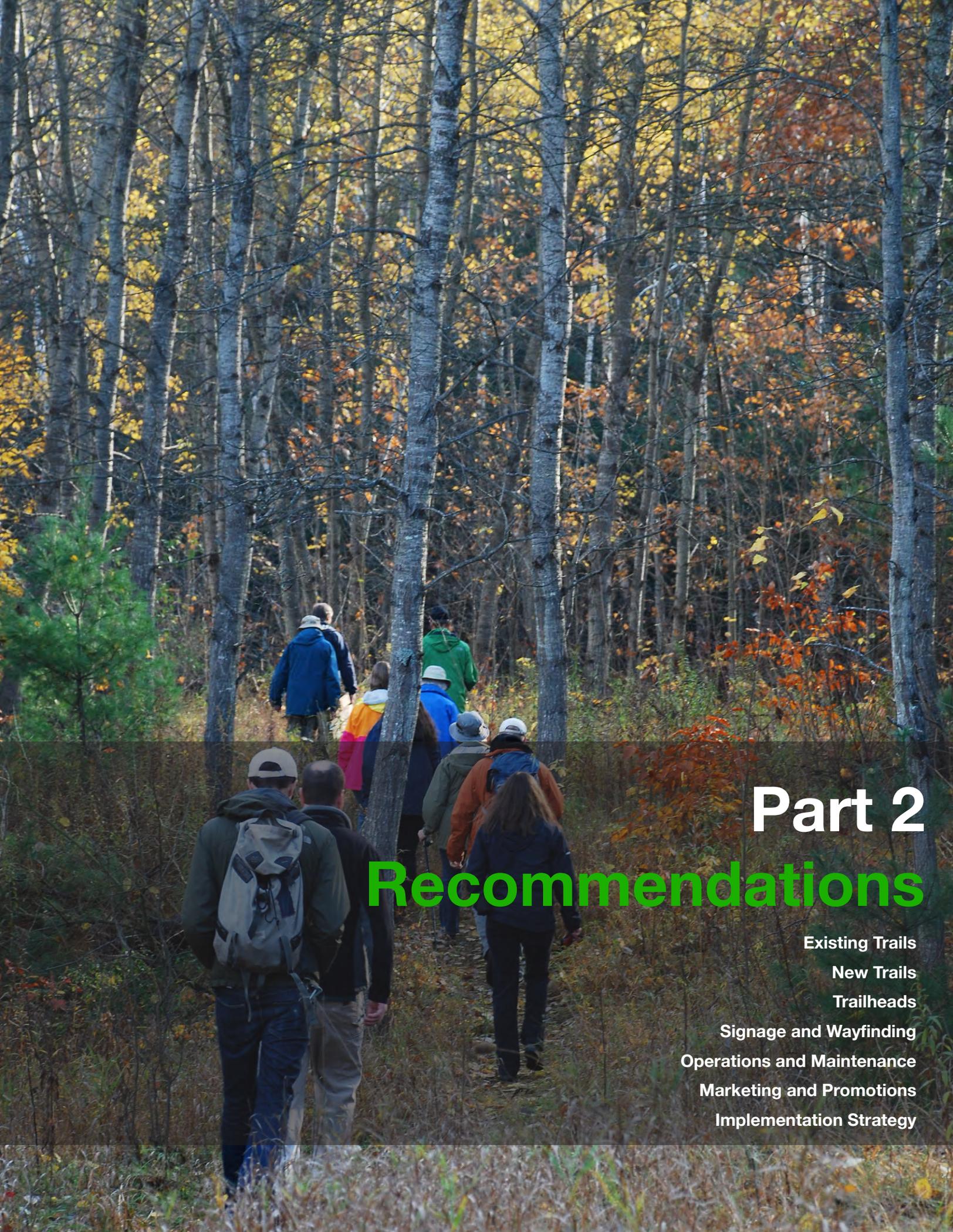
A ten minute presentation of the Trails Master Plan was given to Council on March 9th. The presentation provided an overview of the master plan process to date and outlined the key recommendations based on the March 1st draft of the master plan. Following the presentation a question and answer period occurred. At the completion of the presentation, Council agreed to accept the Master Plan as received for information. A copy of the slides presented are provided in the appendix.

Stakeholder Meeting #2

The second Stakeholder Meeting was held on March 25th, 2015. This was a follow up meeting to the first Stakeholder Meeting. Participants were provided with a draft copy of the master plan for review prior to the meeting. The meeting began with a presentation similar to the March 9th Council presentation.

Public Meeting #2

The second public meeting was on Tuesday April 14th from 6 to 8 PM at the Nobleton Arena. The meeting included three presentation panels and a digital slide presentation of the trail planning process to date, and an overview of the master plan's recommendations. Copies of the master plan were provided on tables so participants could write their comments directly on the plans.



Part 2

Recommendations

- Existing Trails
- New Trails
- Trailheads
- Signage and Wayfinding
- Operations and Maintenance
- Marketing and Promotions
- Implementation Strategy

Township of King Trails Master Plan

Proposed Trail Improvements

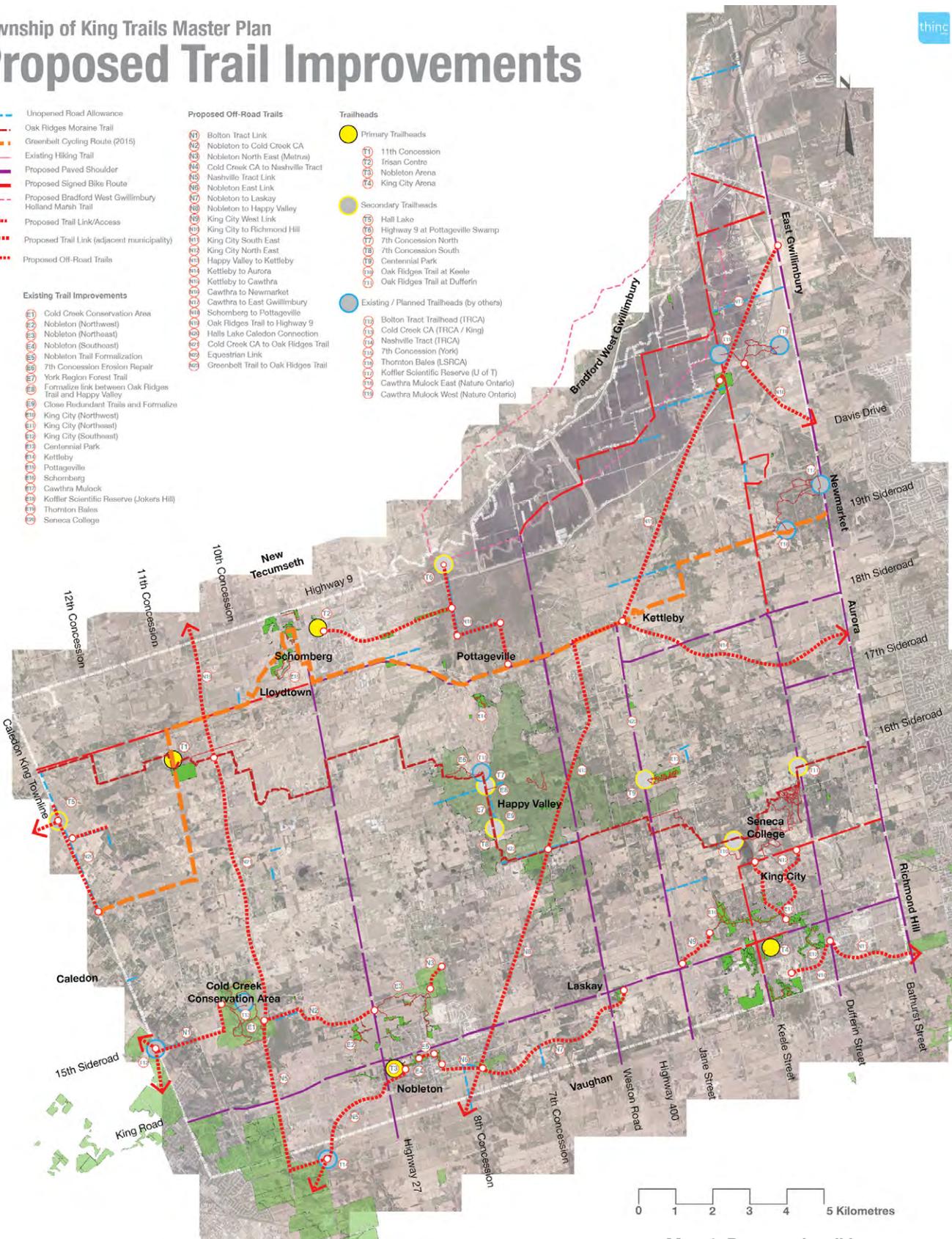


- Unopened Road Allowance
- Oak Ridges Moraine Trail
- Greenbelt Cycling Route (2015)
- Existing Hiking Trail
- Proposed Paved Shoulder
- Proposed Signed Bikes Route
- Proposed Bradford West Gwillimbury Holland Marsh Trail
- Proposed Trail Link/Access
- Proposed Trail Link (adjacent municipality)
- Proposed Off-Road Trails

- ### Proposed Off-Road Trails
- T1 Bolton Tract Link
 - T2 Nobleton to Cold Creek CA
 - T3 Nobleton North East (Metrus)
 - T4 Cold Creek CA to Nashville Tract
 - T5 Nashville Tract Link
 - T6 Nobleton East Link
 - T7 Nobleton to Laskay
 - T8 Nobleton to Happy Valley
 - T9 King City West Link
 - T10 King City to Richmond Hill
 - T11 King City South East
 - T12 King City North East
 - T13 Happy Valley to Kettleby
 - T14 Kettleby to Aurora
 - T15 Kettleby to Cawthra
 - T16 Cawthra to Newmarket
 - T17 Cawthra to East Gwillimbury
 - T18 Schomberg to Pottageville
 - T19 Oak Ridges Trail to Highway 9
 - T20 Halls Lake Caledon Connection
 - T21 Cold Creek CA to Oak Ridges Trail
 - T22 Equestrian Link
 - T23 Greenbelt Trail to Oak Ridges Trail

- ### Trailheads
- Primary Trailheads
 - T1 11th Concession
 - T2 Inisan Centre
 - T3 Nobleton Arena
 - T4 King City Arena
 - Secondary Trailheads
 - T5 Hall Lako
 - T6 Highway 9 at Pottageville Swamp
 - T7 7th Concession North
 - T8 7th Concession South
 - T9 Centennial Park
 - T10 Oak Ridges Trail at Keele
 - T11 Oak Ridges Trail at Dufferin
 - Existing / Planned Trailheads (by others)
 - T12 Bolton Tract Trailhead (TRCA)
 - T13 Cold Creek CA (TRCA / King)
 - T14 Nashville Tract (TRCA)
 - T15 7th Concession (York)
 - T16 Thornton Bales (LSRCA)
 - T17 Koffler Scientific Reserve (U of T)
 - T18 Cawthra Mulock East (Nature Ontario)
 - T19 Cawthra Mulock West (Nature Ontario)

- ### Existing Trail Improvements
- E1 Cold Creek Conservation Area
 - E2 Nobleton (Northwest)
 - E3 Nobleton (Northeast)
 - E4 Nobleton (Southeast)
 - E5 Nobleton Trail Formalization
 - E6 7th Concession Erosion Repair
 - E7 York Region Forest Trail
 - E8 Formalize link between Oak Ridges Trail and Happy Valley
 - E9 Close Redundant Trails and Formalize
 - E10 King City (Northwest)
 - E11 King City (Northeast)
 - E12 King City (Southeast)
 - E13 Centennial Park
 - E14 Kettleby
 - E15 Pottageville
 - E16 Schomberg
 - E17 Cawthra Mulock
 - E18 Koffler Scientific Reserve (Jokers Hill)
 - E19 Thornton Bales
 - E20 Seneca College



Map 1: Proposed trail improvements

Part 2: Recommendations

Based on the comments received through the public meetings and online survey, it is clear residents of the Township of King want a trail system that provides access to the Township's natural features and links the various urban centres and key community destinations. The network of trails should cater to a range of trail user groups without compromising the environment or trail user experience.

To help provide a connected trail network, the system has three parts:

- ▶ On-road trail network – to be implemented as part of the Township's Transportation Master Plan;
- ▶ Trails within the urban boundary of each community; and,
- ▶ Linking trails connecting the urban centres of King.

In addition to improvements to the trails themselves, upgrades to the trails themselves, upgrades to the trail access points and signage system are also required. The wayfinding improvements will help users navigate through the approximately 330 square kilometers of the township, and connect to the trails in the eight neighboring municipalities. In some instances, there needs to be changes to how the Township designs, implements and maintains its trails to ensure a successful trail network. Finally, to provide an economic benefit to the township, the trails should be promoted to both local residents and potential visitors from outside the community.

This plan's recommendations are organized into the following headings:

- ▶ Existing Trails (E);
- ▶ New Trails (N);
- ▶ Trailheads (T);
- ▶ Signage and Wayfinding (S);
- ▶ Operations (O); and,
- ▶ Marketing and Promotions (P).

Existing Trails (E)

The Township of King has approximately 100 kilometres of trails ranging from paved pathways through municipal parks to publicly accessible natural surface single track trails in sensitive privately owned natural environments.

The Oak Ridges Trail is the backbone of this system running west to east across the entire Township. Other formally maintained trails can be found in the communities of Schomberg, Pottageville, Nobleton and King City. Trails in natural areas include Cold Creek Conservation Area, Happy Valley, Koffler Scientific Reserve, Thornton Bales and Cawthra Mulock Nature Reserve.

The following tables provide an overview of these existing trails including approximately length, surfacing, existing condition, recommendations and general comments.

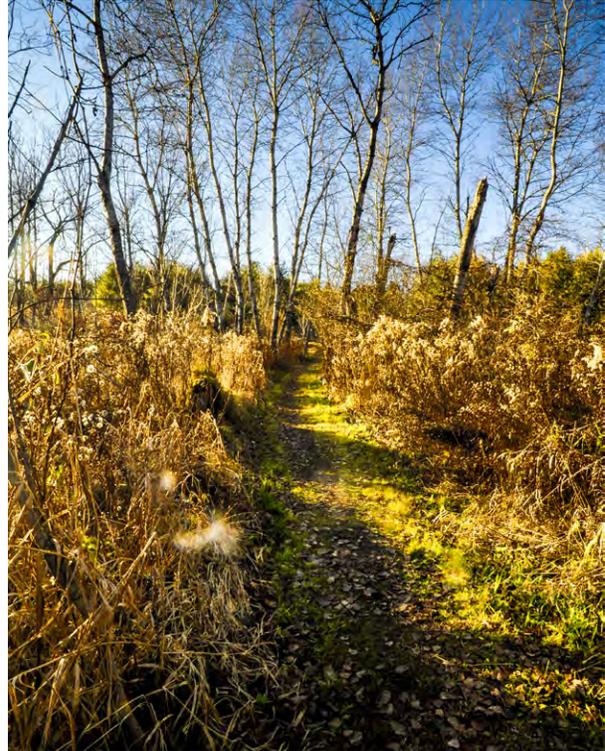
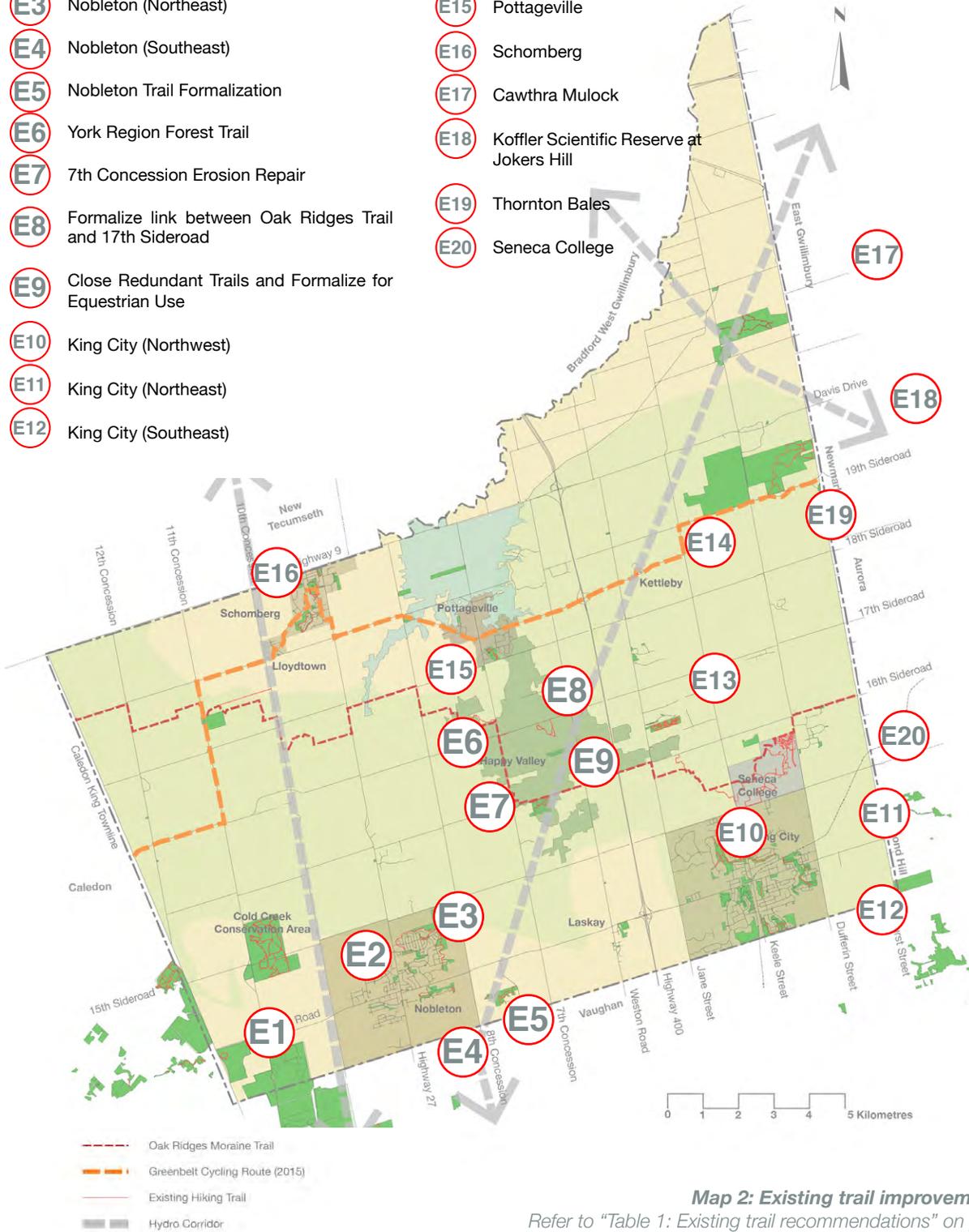


Figure 37: (top) King City Trails
Image courtesy of Wilson Markle.

Figure 38: (bottom) 7th Concession

- E1** Cold Creek Conservation Area
- E2** Nobleton (Northwest)
- E3** Nobleton (Northeast)
- E4** Nobleton (Southeast)
- E5** Nobleton Trail Formalization
- E6** York Region Forest Trail
- E7** 7th Concession Erosion Repair
- E8** Formalize link between Oak Ridges Trail and 17th Sideroad
- E9** Close Redundant Trails and Formalize for Equestrian Use
- E10** King City (Northwest)
- E11** King City (Northeast)
- E12** King City (Southeast)

- E13** Centennial Park
- E14** Kettleby
- E15** Pottageville
- E16** Schomberg
- E17** Cawthra Mulock
- E18** Koffler Scientific Reserve at Jokers Hill
- E19** Thornton Bales
- E20** Seneca College



Map 2: Existing trail improvements
 Refer to "Table 1: Existing trail recommendations" on page 53 for information on each proposed improvement.

Existing Trail Recommendations

E	Existing Trails	Start	Finish	Approximate Length
E1	Cold Creek Conservation Area	Trails located within Conservation Area		6.6 km
E2	Nobleton (Northwest)	West of Highway 27 and North of King Road.		1.6 km
E3	Nobleton (Northeast)	East of Highway 27, North of King Road		5.3 km
E4	Nobleton (Southeast)	Woodhill Ave	Janet Ave	0.9 km
E5	Nobleton Trail Formalization	Woodhill Avenue	East end of Hawthorne Valley Road	1.0 km
E6	York Region Forest Trail	7th Concession	Oak Ridges Trail	1.3 km
E7	7th Concession Erosion Repair Between 16th and 17th Sideroads.	South of 17th Sideroad	South of 17th Sideroad	2.4 km
E8	Provide formal link between the Oak Ridges Trail to the Goldie Feldman Nature Reserve.	7th Concession	Goldie Feldman Nature Reserve	0.3 km
E9	Work with land owners in the Happy Valley Forest to properly sign and close redundant trails	6th Concession	8th Concession	17.2 km

Tread	Existing Condition	Recommendation and Comments*
Natural surface and boardwalk trails	<ul style="list-style-type: none"> • Good 	<ul style="list-style-type: none"> • Undertake routine inspections and maintenance.
Primarily limestone with some asphalt	<ul style="list-style-type: none"> • Fair to very good 	<ul style="list-style-type: none"> • Link trails to proposed trails north of Nobleton. • Undertake routine inspections and maintenance.
Primarily limestone with some asphalt	<ul style="list-style-type: none"> • Good 	<ul style="list-style-type: none"> • Undertake routine inspections and maintenance.
Varies (limestone, concrete, natural)	<ul style="list-style-type: none"> • Good 	<ul style="list-style-type: none"> • Undertake routine inspections and maintenance.
natural surface	<ul style="list-style-type: none"> • Trail informally used • Requires multiple bridges to cross creek • Alignment currently crosses into private property 	<ul style="list-style-type: none"> • Trail follows creek north of Hawthorne Valley Road.
natural surface	<ul style="list-style-type: none"> • Used by hikers and equestrian • No parking lot / roadside parking only • Trail's alignment creates erosion issues and safety concerns 	<ul style="list-style-type: none"> • Trail in York Region's plans for improvements including upgrading of trail / routing for equestrian use. • Work with York Region.
natural surface	<ul style="list-style-type: none"> • Eroded trail • Make improvements to entrance for equestrian users 	<ul style="list-style-type: none"> • Partner with Nature Conservancy of Canada to restore trail and fix erosion issues. • Restoration recommendations provided in report prepared by GEMS for Nature Conservancy of Canada.
Bridge natural surface	<ul style="list-style-type: none"> • Nature Conservancy of Canada 	<ul style="list-style-type: none"> • Follow unopened Road allowance. • Provide bridge over watercourse.
natural surface	<ul style="list-style-type: none"> • Informal trails cross into NCC lands and other private land owners • Trails historically used for equestrian purposes 	<ul style="list-style-type: none"> • Design sustainable trail system for equestrians. • Close trails and restore landscape on private lands as required by owners. • Provide wayfinding signage. • Work may be undertaken in conjunction with other trail improvement initiatives.

Table 1: Existing trail recommendations
Refer to "Map 1: Existing trail improvements" on page 51 for the location of each recommendation.

Existing Trail Recommendations

E	Existing Trails	Start	Finish	Approximate Length
E10	King City (Northwest)	Keele Street (St. Andres Park)	Kingcross Drive	3.4 km
E11	King City (Northeast)	Keele Street	Dennison Street	1.5 km
E12	King City (Southeast)		Varies	3.0 km
E13	Centennial Park	East of Jane Street (loop)		5.0 km
E14	Kettleby		Kettleby Road	0.1 km
E15	Pottageville	18 Sideroad	North of Cooke Road	1.0 km
E16	Schomberg		Varies	3.8 km
E17	Cawthra Mulock	Dufferin Street	Bathurst Street	8.0 km
E18	Koffler Scientific Reserve at Jokers Hill	Bathurst north of 19th Sideroad	19th Sideroad / Thornton Bales	5.2 km
E19	Thornton Bales	Loop. Starts at 19th Sideroad, ties into Koffler Scientific Reserve at Jokers Hill		1.4 km
E20	Seneca College	Dufferin Street north of 15th Sideroad. Ties into Oak Ridges Trail.		17.2 km

Tread	Existing Condition	Recommendation and Comments*
Granular	• Good	• Undertake routine inspections and maintenance.
Limestone	• Good	• Undertake routine inspections and maintenance. • Undertake improvements to address water and erosion in sections.
Limestone	• Varies	• Undertake routine inspections and maintenance.
Mountain Bike Single Track Trails	• Excellent	• Undertake routine inspections and maintenance.
Natural	• Good	• Undertake routine inspections and maintenance.
Limestone and Natural	• Good	• Disconnected from other trails.
Varies	• Good to excellent	• Undertake routine inspections and maintenance.
Natural surface	• Varies • Some wet sections • Some sections overgrown and require work to clear trail	• Incorporate signage at trailhead regarding other trails in King Township. • Improve signage directing users to trailheads.
Natural surface	• Varies • Wayfinding could be improved	• Partner with University of Toronto to improve signage and wayfinding along trail. • Improve parking on Bathurst (signage). • Improve garbage pick-up.
Natural surface	• Good	• Partner with LSRCA to improve signage and wayfinding
Varies	• Varies	• Work with Seneca College to provide opportunities for enhanced links to ORT and King City Trails.

* Note: Additional recommendations provided in body of report.

Table 2: Existing trail recommendations (continued)
Refer to "Map 1: Existing trail improvements" on page 51 for the location of each recommendation.

New Trails (N)

Trail Planning Principles

The proposed trail network considers a number of factors in developing a recommended route through the Township of King. This includes being:

- ▶ Safe;
- ▶ Connected;
- ▶ Accessible;
- ▶ Sustainable;
- ▶ Diverse;
- ▶ Integrated; and,
- ▶ Sensitive to natural and cultural heritage conditions.

Safe

Minimizing actual and perceived risks is a critical part of the network and should be an important consideration in implementing the plan. Key considerations included appropriately selecting on and off road routes with consideration of surfacing, grades, sightlines and traffic volumes as well as appropriate signage and wayfinding to make the network safe, secure and inviting.

Connected

Identifying opportunities to provide a connected, primarily off-road trail network was a key consideration in recommending new trails, with a focus on providing links to trails within King as well as connecting the various communities to each other. Another key consideration is to provide linkages to existing and proposed trails of the municipalities surrounding the Township to help link King to the wider regional trail network.

Accessible

Trails should be planned and designed to provide access for users of all ages and abilities and allow for all-season use. A key component on the network shall be to provide barrier free access to address Accessibility for Ontarians with Disabilities. New trails will be built in compliance with the relevant provincial legislation, and existing trails may be upgraded to minimize barriers. Where possible, and applicable,

not all trails are required to be accessible (e.g. nature trails).

Sustainable

Trail network planning needs to carefully consider the impact a trail and users will have on the natural environment. A significant portion of the Township is within the Oak Ridges Moraine and other environmentally sensitive areas such as the Pottageville Swamp and Happy Valley Forest. Therefore the planning for trails and associated infrastructure needs to carefully consider these and other sensitive natural areas. The network must also be fiscally responsible in regards to implementation and ongoing maintenance, and capitalize on opportunities for community partnerships and stewardship.

Diverse

The trail network needs to accommodate a wide range of non-motorized interest groups through a wide range of environments, including both natural and more urban environments. While not every group should be permitted access on every trail, the master plan needs to accommodate different groups where appropriate with different user experiences. User groups to consider include:

- ▶ Walkers / general fitness;
- ▶ Nature observation;
- ▶ Hikers;
- ▶ Mountain bikers;
- ▶ Recreational cyclists;
- ▶ Commuter cyclists;
- ▶ Equestrian;
- ▶ Trail running;
- ▶ Dog walkers;
- ▶ Snowshoeing;
- ▶ Cross Country Skiing; and,
- ▶ Geocaching.

Integrated

Trails need to be integrated within the Township as a key component of King's active transportation network. This includes ensuring trails are part of the community planning process and that trails



Figure 39: Opportunities for equestrian use should be investigated as part of every trail project initiative.

Image courtesy of Bill Salmon.

are considered as part of capital improvement expenditures.

Natural and Cultural Heritage

The trail network should provide opportunities for users to access and experience King's various cultural and natural assets. This includes but is not limited to:

- ▶ Recreation centers and facilities;
- ▶ Cultural landmarks;
- ▶ National features; and,
- ▶ Historical landmarks;

Trail Network

The Township of King is approximately 333 square kilometres in size consisting of lands owned by a wide range of both public and private interests. To provide a connected and accessible trail system requires a network of both on and off-road trails.

On Road

The Region of York Pedestrian and Cycling Master Plan and the Township of King Transportation Master Plan outline a long term strategy for a system of on-road signed bicycle routes throughout the Township of King. These routes are an important component of creating a connected active transportation network throughout King. The key roads which will have paved shoulders to create this on-road network include:

- ▶ Highway 27;
- ▶ Weston Road;
- ▶ Jane Street;
- ▶ Dufferin Street;
- ▶ Bathurst Street;
- ▶ King Road; and,
- ▶ 18th Sideroad east of Jane Street.

These routes will provide the overall structure to the trails master plan and connect the Township's larger population centres including Schomberg, Pottageville, Kettleby, Nobleton and King City. This plan assumes that the planning and implementation of these paved on road routes will continue to be undertaken by the Township's Public Works

department as a component of the Township of King's Transportation Master Plan.

Key directional signage for the on road routes which would help complete the trail network include:

- ▶ Between the Greenbelt Route and Oak Ridges Trail along Highway 27, Jane Street, and Dufferin Street.
- ▶ Between the Oak Ridges Trail and Centennial Park along Jane Street.

Off Road

The off-road trail network will provide secondary connections linking existing trails within King and immediately adjacent to the Township. These trails will be on both public and private land parcels and are focused on hiking and recreation use.

Public Parcels

King has a number of existing publicly owned trails that provide the foundation for the secondary trail network. These trails include:

- ▶ Community trails in Schomberg, Nobleton, Pottageville, and King City;
- ▶ Trails in the Cold Creek Conservation Area;
- ▶ Centennial Park;
- ▶ The unopened 11th sideroad road allowance between Weston Road and Jane Street;
- ▶ the unopened 7th Concession Road allowance in the Happy Valley;
- ▶ 11th sideroad between Bathurst and Dufferin; and,
- ▶ 15th unopened road allowance.

Where land is in public ownership and agreements for access have been established on private parcels, a network of walkways and trails should continue to be maintained with opportunities for new routes and connections planned and implemented. While there is a well developed existing off-road trail network, the Township needs to continue to look for partnerships to expand and link the network with other agencies including York Region, Toronto and Region Conservation Authority, Lake Simcoe Conservation Authority and neighboring municipalities. All of these groups are currently in the planning stages and

implementing trails within and immediately adjacent to the Township.

Key trails in the planning stages include:

- ▶ Bolton Resource Management Tract (TRCA);
- ▶ Nashville Resource Management Tract (TRCA); and,
- ▶ Happy Valley Tract at 7th Concession (York Region Forestry).

Publicly Accessible Private Parcels

Privately owned but publicly accessible trails that currently make up this secondary trail network include:

- ▶ Oak Ridges Trail;
- ▶ Trails in Seneca College;
- ▶ Happy Valley Trails;
- ▶ Koffler Scientific Reserve at Jokers Hill; and,
- ▶ Cawthra Mulock Nature Reserve.

The Township of King needs to continue to work with these trail owners to integrate these trails into the trails strategy for King where appropriate.

Private Land Ownership

A significant amount of land in the Township is privately owned. While this plan looks to capitalize on public ownership to the fullest extent possible to establish a linked network of trails, working with private land owners to fill in gaps in the system will be a key component in realizing a connected trail network.

Public / private partnerships for land access should be investigated with interested land owners. This may include a land access agreement similar to how much of the Oak Ridges Trail has been established, or through the use of other land access mechanisms including but not limited to:

- ▶ Memorandum of Understanding;
- ▶ Restrictive Covenant;
- ▶ License / Lease;
- ▶ Conservation Easement;
- ▶ Option to Purchase;

- ▶ Donation;
- ▶ Bequeath;
- ▶ Tax Receipt;
- ▶ Land Swap;
- ▶ Purchase and sever; and,
- ▶ Purchase.

Trail Types

Three categories of multi-use trails are proposed:

- ▶ Paved asphalt multiuse trails;
- ▶ Granular trails; and,
- ▶ Natural surface trails.

The type of trail to be used is based on a number of factors including:

- ▶ Sensitivity of the site / trail route;
- ▶ Anticipated users;
- ▶ Frequency of use;
- ▶ Desired character; and,
- ▶ Life cycle cost.

Paved Multiuse Trails

Pathways through developed and urban areas should be designed and constructed to accommodate heavy use and provide access for a wide range of users including strollers and for those with mobility devices. These trails should be designed to the Township's Park Development standards. Some key consideration in the design of multiuse trails include:

- ▶ Minimum 2 to 3 metre walkway width;
- ▶ Asphalt surface;
- ▶ Alignment should consider visibility around corners and bends to ensure adequate sight lines for pedestrians and cyclists
- ▶ On high volume routes consideration for painted centre lines;
- ▶ Keep slopes to under 5% through site regrading or trail alignment.

Granular Trails

Many of King's trails are already constructed with a limestone / granular surface. This material provides more stability than a natural surface trail and costs less to implement than asphalt. However, for heavily used sections of trail asphalt is still a preferred approach.

Natural Surface Trails

The majority of the trails in King are, and should continue to be maintained as, natural surface trails. These trails should be used to access the Township's more sensitive areas and to provide a more natural trail experience. Design and maintained appropriately, natural surface trails can be used by a wide range of user groups including hikers, mountain bikers and equestrian riders. The cost for constructing and maintaining natural surface trails will be significantly less than paved trails, and will allow for smaller and less costly trail infrastructure to be used in many instances.

Some key considerations in the design and maintenance of natural surface trails include:

- ▶ Construct the trail to sustainable trail standards such as those promoted by the International Mountain Bicycling Association (IMBA) to ensure proper drainage of the trail surface to minimize erosion and user impacts on the natural environment.
- ▶ Sustainable natural surface trails don't require extensive maintenance to ensure water is diverted (by their design).
- ▶ Maintain a 5% outslope with frequent grade reversals to force water to leave the trail.
- ▶ Where outsloping and grade reversals are not easily incorporated into existing trails, other trail features including rolling dips and knicks should be used.

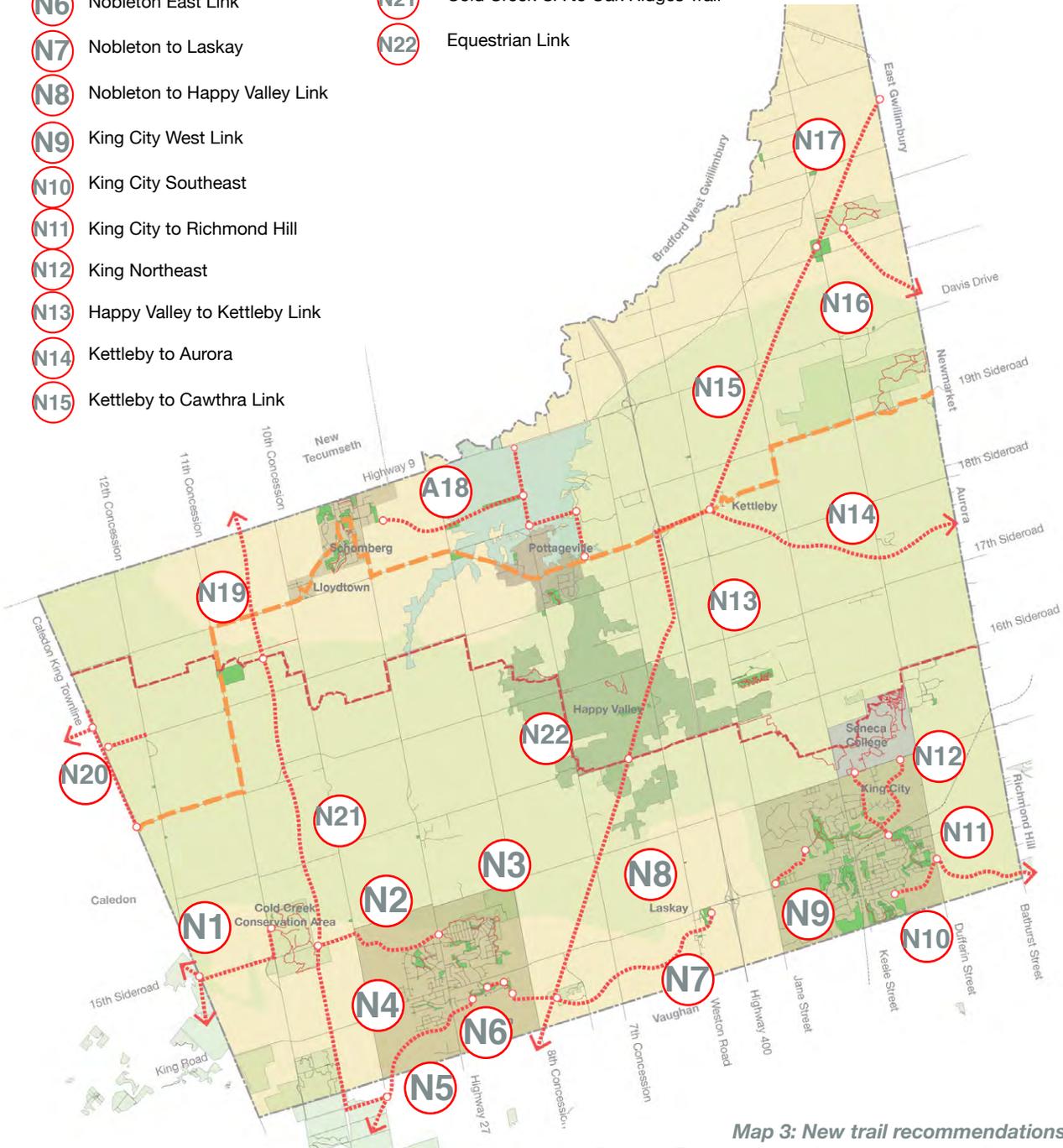
Trail Design Standards and Specifications

The Toronto and Region Conservation Authority is in the final stages of preparing their trail design guidelines. This documents will include construction standards and specifications for all trail projects on TRCA lands. Once available, the Township of King should adopt these standards for all trail projects in King. Other trail standards such as those by the International Mountain Biking Association are an excellent reference for natural surface trail construction and maintenance.

- N1** Bolton Tract Link
- N2** Nobleton to Cold Creek CA Link
- N3** Nobleton Northeast (Metrus)
- N4** Cold Creek CA to Nashville Tract
- N5** Nashville Tract Link
- N6** Nobleton East Link
- N7** Nobleton to Laskay
- N8** Nobleton to Happy Valley Link
- N9** King City West Link
- N10** King City Southeast
- N11** King City to Richmond Hill
- N12** King Northeast
- N13** Happy Valley to Kettleby Link
- N14** Kettleby to Aurora
- N15** Kettleby to Cawthra Link

- N16** Cawthra Mulock to Newmarket
- N17** Cawthra Mulock to East Gwillimbury
- N18** Schomberg to Pottageville
- N19** Oak Ridges to Tecumseth Link
- N20** Halls Lake Caledon Connection
- N21** Cold Creek CA to Oak Ridges Trail
- N22** Equestrian Link

-  Unopened Road Allowance
-  Oak Ridges Moraine Trail
-  Greenbelt Cycling Route (2015)
-  Existing Hiking Trail
-  Proposed Paved Shoulder
-  Proposed Signed Bike Route
-  Proposed Bradford West Gwillimbury Holland Marsh Trail
-  Proposed Trail Link/Access
-  Proposed Trail Link (adjacent municipality)
-  Proposed Off-Road Trails



Map 3: New trail recommendations
 Refer to "Table 3: New trail recommendations" on page 65 for information on each proposed improvement.

Equestrian Trails

As described on the Township website¹, King is a one of the most active equestrian areas in North America which has produced Olympic-caliber riders and horses. The equestrian industry generates a wide range of related business and employment opportunities including veterinarians, groomers, property and facility staff, transportation services, manufacturers of related accessories and equipment, and feed suppliers. There is also a tertiary level created in the hospitality sector, to meet the needs of guests and tourists coming into the area for equestrian events. For these reasons King has become an attractive location for those with an interest in horses or for breeders wishing to establish a new farm or expand an already existing operation.

To help address the demand for equestrian trails, opportunities for horseback trail riding is required. While historically informal trails have been used, the increase in urban development and changes in land ownership have gradually reduced the options available to equestrian trail users.

Where appropriate, the Toronto and Region Conservation Authority and York Region allow equestrian use on many of their trails. The Township of King also permits equestrian riders on a number of trails including those in unopened rights-of-way.

To take advantage of these permitted riding areas, a proposed equestrian link is proposed as part of this master plan. The proposed equestrian trail is approximately five kilometres long as follows:

- ▶ York Region's property south of the 18th Sideroad and East of the 8th Concession to the 7th Concession;
- ▶ 7th Concession south to the 16th Sideroad; and,
- ▶ 16th Sideroad east to Humber Source Woods (TRCA).

The creation of this identifiable trail does not preclude the municipality from continuing to work with the various agents/agencies to expand the equestrian offerings that were historically relevant.

Other opportunities for expanding the equestrian trail network may be explored through discussion with private land owners to seek permission to use their trails. Trails linking to other TRCA trail networks – such as the Nashville Tract and Bolton Tract – should also be considered for equestrian use.



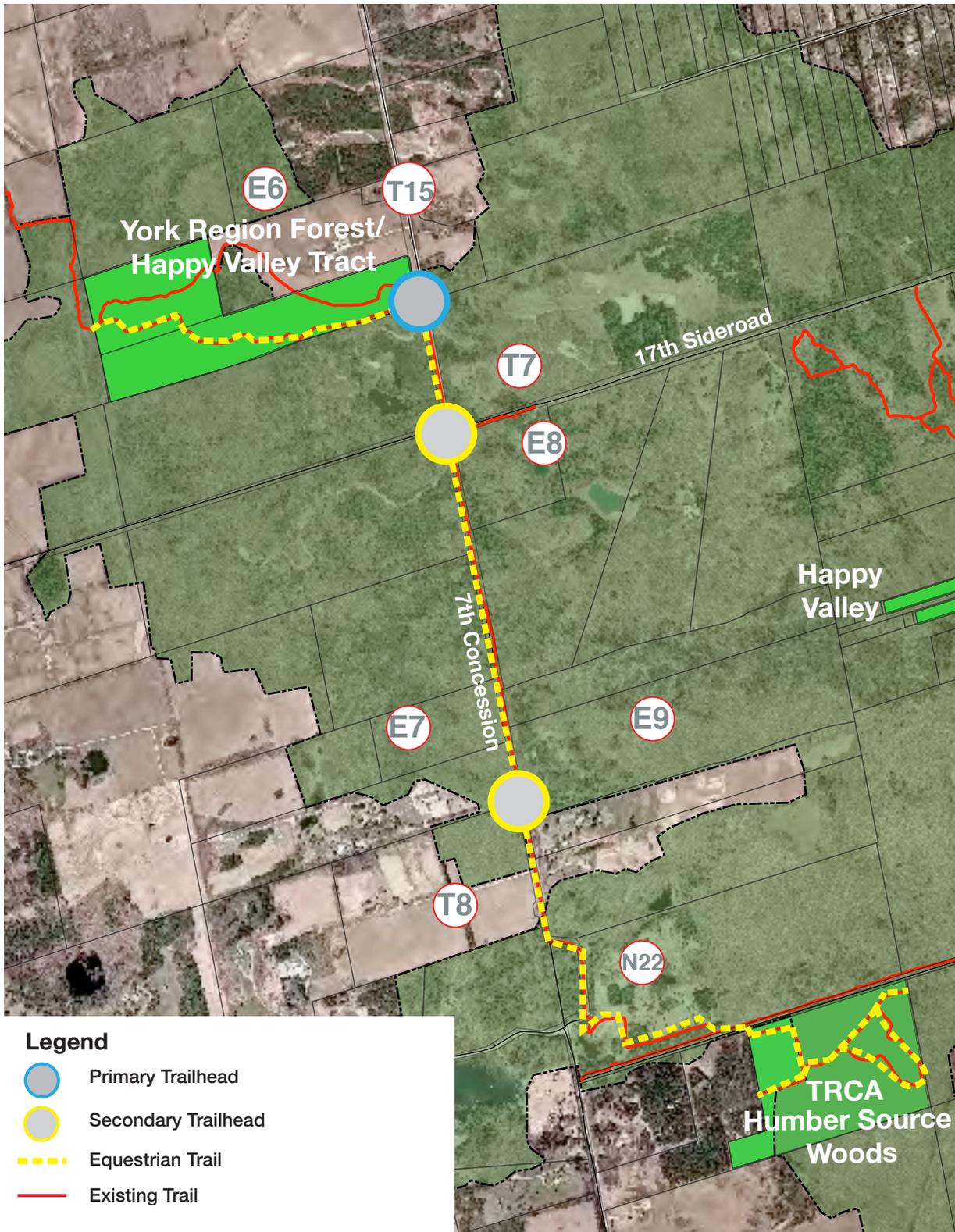
Figure 40: Blue Moon Saddleback Ride

Image courtesy of: Bill Salmon

Figure 41: Winter Trail Ride

Image courtesy of Bill Salmon.

¹ <http://www.king.ca/Business/BusinessSectorProfiles/Equestrian/Pages/default.aspx>



Map 4: Equestrian trail
 A trail from York Region's property in Happy Valley, South along the 7th Concession, to the Humber Source Woods should be a designated Equestrian trail.

New Trail Recommendations

N	Trail Reference	Start	Finish	Approximate Length
N1	Bolton Tract Link	Trailhead at Columbia Way and Caledon King Town Line	Cold Creek Conservation Area	2.5 km
N2	Nobleton to Cold Creek Conservation Area	Cold Creek Conservation Area	Nobleton (Holden Drive)	3 km
N3	Nobleton Northeast	Link to existing trail	8th Concession and 15th Sideroad	1.3 km
N4	Cold Creek CA to Nashville Tract (follows hydro corridor)	King Vaughan Road at 10th Concession	Cold Creek Conservation Area	4 km
N5	Nashville Tract Link	Trailhead at King Vaughan Road and 10th Concession	Nobleton Community Centre (Highway 27 and King Rd.)	4 km
N6	Nobleton Southeast Link	Woodhill Avenue	8th Concession	2 km
N7	Nobleton to Laskay	8th Concession	Laskay	6 km
N8	Nobleton to Happy Valley (follows hydro corridor)	8th Concession	TRCA Property in Happy Valley	6 km
N9	King City West Link	King Township Museum	Manitou Drive	1.5 km

Tread	Trail Partners	Route Comments
Natural	Township of King, TRCA, YMCA, Town of Caledon, Private Landowners	<ul style="list-style-type: none"> Route to be determined. Work with TRCA and private landowners to receive permission to establish route. Opportunity to follow unopened 15th Sideroad allowance for portion of the trail.
Natural surface or granular	Township of King, TRCA, YMCA, Private Landowners	<ul style="list-style-type: none"> Alignment to be established in consultation with private landowners and/or as part of future subdivision/ community planning process. Opportunity to follow unopened 15th Sideroad allowance west of 10th Concession. Trail can link to Cold Creek Conservation Areas Mixed Forest Trail.
Granular	TRCA, York Region	<ul style="list-style-type: none"> Potential future opportunity for link to Happy Valley
	Hydro Corridor / Private Ownership, TRCA,	<ul style="list-style-type: none"> Proposed alignment to follow hydro corridor Alignment should be planned with consideration of proposed trails A2 and A3.
Natural surface or granular	MNR, TRCA, Private Landowners	<ul style="list-style-type: none"> Alignment to be established in consultation with private landowners and/or as part of future subdivision/ community planning process. Opportunity to link with existing trail Woodhill and Janet Avenue.
Natural surface or granular	Township of King, Private Landowners	<ul style="list-style-type: none"> Work with private landowners to receive permission to establish route.
Natural surface or granular	Private Landowners	<ul style="list-style-type: none"> Work with private landowners to receive permission to establish route. Unopened road allowance between 8th Concession and Humber Trail
Natural surface or granular	TRCA, Hydro Corridor / Private Ownership.	<ul style="list-style-type: none"> Alignment to be established in consultation with private landowners.
Natural surface or granular	King City Trails and Township of King Planning Department.	<ul style="list-style-type: none"> Work with private landowners to receive permission to establish route. Alignment may be established as part of any future subdivision/community planning process

Table 3: New trail recommendations
Refer to "Map 2: New trail recommendations" on page 61 for the location of each recommendation.

New Trail Recommendations

N	Trail Reference	Start	Finish	Approximate Length
N10	King City Southeast	East of Keele Street	East of Dufferin Street	1.5 km
N11	King City to Richmond Hill	Dufferin Street	Bathurst Glen Golf Course at Bathurst Street at Township boundary with Richmond Hill and Vaughan	2 km
N12	King City Northeast	King Road	15 Sideroad	4 km
N13	Happy Valley to Kettleby (follows hydro corridor)	TRCA Property in Happy Valley	Kettleby	7 km
N14	Kettleby to Aurora	Kettleby	Bathurst north of 17th Sideroad	7 km
N15	Kettleby to Cawthra (follows hydro corridor)	Kettleby	Cawthra Mullock Nature Reserve	7 km
N16	Cawthra to Newmarket (follows hydro corridor)	Cawthra Mullock Nature Reserve	Bathurst and Woodspring Avenue	3 km
N17	Cawthra to East Gwillimbury (follows hydro corridor)			

Tread	Trail Partners	Route Comments
Granular	King City Trails	<ul style="list-style-type: none"> • Expansion of existing trails network • Alignment to be determined through community planning process • Opportunity to connect to/view Richard Serra's sculpture "Shift".
Natural surface or granular	King City Trails, private landowners, Town of Richmond Hill	<ul style="list-style-type: none"> • Work with private landowners to receive permission to establish route. • Link to existing primary soft surface trail (Bathurst Glen Golf Course) as per Town of Richmond Hill's Pedestrian and Cycling Master Plan study (2010)
Granular	King City Trails, County Day School	<ul style="list-style-type: none"> • Expansion of existing trails network • Alignment to be determined through community and subdivision planning process • Extension across 15th onto Seneca
Granular	Hydro Corridor / Private Ownership, Nature Conservancy Canada	<ul style="list-style-type: none"> • Alignment to be established in consultation with private landowners and/or as part of future subdivision/ community planning process. • Portion of route to be on road to cross Highway 400. • Proposed alignment to follow hydro corridor
Varies	Private Ownership, Town of Aurora	<ul style="list-style-type: none"> • Alignment to be established in consultation with private landowners • Alignment to address environmental sensitivity
Granular	Hydro Corridor / Private Ownership, Ontario Nature	<ul style="list-style-type: none"> • Alignment to be established in consultation with private landowners • Proposed alignment to follow hydro corridor
Granular	Hydro Corridor / Private Ownership, Ontario Nature, Town of Newmarket	<ul style="list-style-type: none"> • Alignment to be established in consultation with private landowners and/or as part of future subdivision/ community planning process. • Proposed alignment to follow hydro corridor
Granular	Ontario Nature, East Gwillimbury	<ul style="list-style-type: none"> • Opportunity to connect with East Gwillimbury trails. • Alignment around Cawthra Mulock to be determined / may tie into existing trails • proposed alignment to follow hydro corridor

Table 4: New trail recommendations (continued)
Refer to "Map 2: New trail recommendations" on page 61 for the location of each recommendation.

New Trail Recommendations

N	Trail Reference	Start	Finish	Approximate Length
N18	Schomberg to Pottageville	Schomberg	Pottageville	7 km
N19	Oak Ridges Trail to Highway 9 (follows hydro corridor)	Oak Ridges Trail east of 11th Concession	Highway 9	3 km
N20	Caledon Connection	12 Concession and 17th Sideroad at Caledon King Townline	Caledon / King Township Boundary north of 18th Sideroad	4 km
N21	Cold Creek CA to Oak Ridges Trail (follows hydro corridor)	Cold Creek Conservation Area	Oak Ridges Trail east of 11th Concession	7 km
N22	Equestrian Link	York Region Property on 7th Concession	Humber Source Woods	6 km
N23	Greenbelt Trail to Oak Ridges Trail on Jane Street	Greenbelt Trail at Loydtown-Aurora Road	16th Sideroad at Oak Ridges Trail	5 km

Tread	Trail Partners	Route Comments
Natural surface and boardwalk	Lake Simcoe Region Conservation Authority, Private land owners	<ul style="list-style-type: none"> Proposed alignment to follow Township of King owned properties and unopened road allowances where possible Alignment that respects sensitive environment
Granular	Hydro Corridor / Private Ownership, Town of Tecumseth	<ul style="list-style-type: none"> Alignment to be established in consultation with private landowners. Proposed alignment to follow hydro corridor
Granular	Caledon	<ul style="list-style-type: none"> Alignment to be established in consultation with private landowners. Proposed alignment to follow unopened road allowances
Granular	Hydro Corridor / Private Ownership, TRCA	<ul style="list-style-type: none"> Alignment to be established in consultation with private landowners. Proposed alignment to follow hydro corridor
Natural Surface	York Region, Nature Conservancy of Canada, LSRCA, TRCA, Local Equestrian Groups	<ul style="list-style-type: none"> Alignment to follow existing trails through York Region property, 7th Concession, 16th Sideroad, and Humber Source Woods. Route to be signed and designed for equestrian use.
On Road link	ORTA, Greenbelt Foundation, York Region	<ul style="list-style-type: none"> Signed route along Jane Street from the Greenbelt Route to Oak Ridges Trail. Signs provide directions to Centennial Park, Greenbelt Trail and Oak Ridges Trail.

Table 5: New trail recommendations (continued)
Refer to "Map 2: New trail recommendations" on page 61 for the location of each recommendation.

King City Trail Improvements

King City has an excellent existing network of trails that should continue to be enhanced through new connections, improvements and regular maintenance. Key recommendations include:

- ▶ Expanding the trail network through the ongoing subdivision planning process to provide trail connections through new developments and connections between the proposed and existing trail networks;
- ▶ Introduction of a primary trail head at the King City Arena (T4);
- ▶ Improved wayfinding and signage to help users navigate the trail system. Mapping should consider including key landmark's and features (boardwalks, bridges, etc) to help users orient themselves;
- ▶ Improvements to the existing trail east of Dennison to address wet sections. A boardwalk or rerouting of the trail may be required to address erosion concerns in this section;
- ▶ Trail connection under GoTransit railway tracks using Township's easement at 16¹ Dennison (N12);
- ▶ Trail connections to Seneca College's trail system north of 15th Sideroad (N12);
- ▶ Improvements to existing structures to improve safety including adding handrails to staircases, and cleats to the Manitou bridge.
- ▶ Connection from Manitou Drive to the King Township Museum (N9);
- ▶ Trail connection from Richard Serra Court to Dufferin Street allowing for views of Richard Serra's sculpture "Shift" (N10); and,
- ▶ General trail improvements to the existing trails to address erosion and slippery sections.

It is assumed that this list of proposed trail network improvements is not complete and that additional trail network improvements and opportunities will be identified as the trail network in King City is planned and matures. A trails working group for the Township would assist in the planning, prioritizing and overseeing the implementation of the trail improvements. In time this group would absorb any smaller local trail groups in order to allow for a more holistic view of trail planning in King Township.

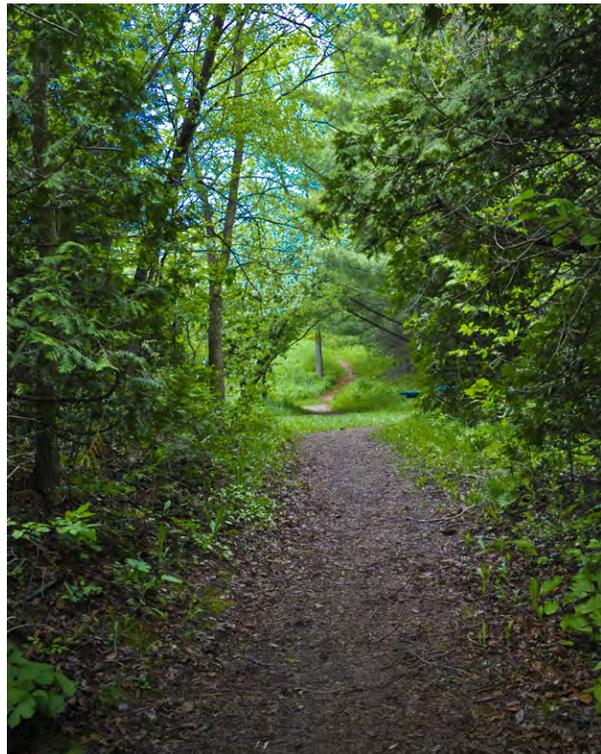
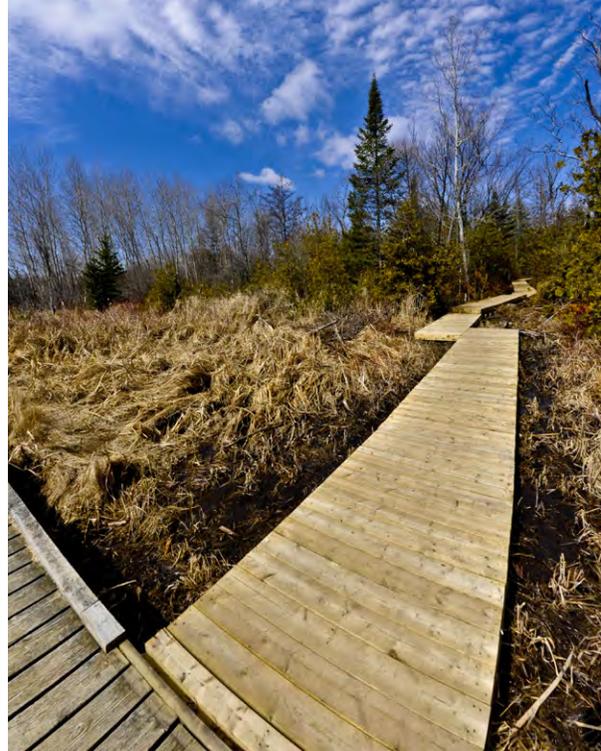
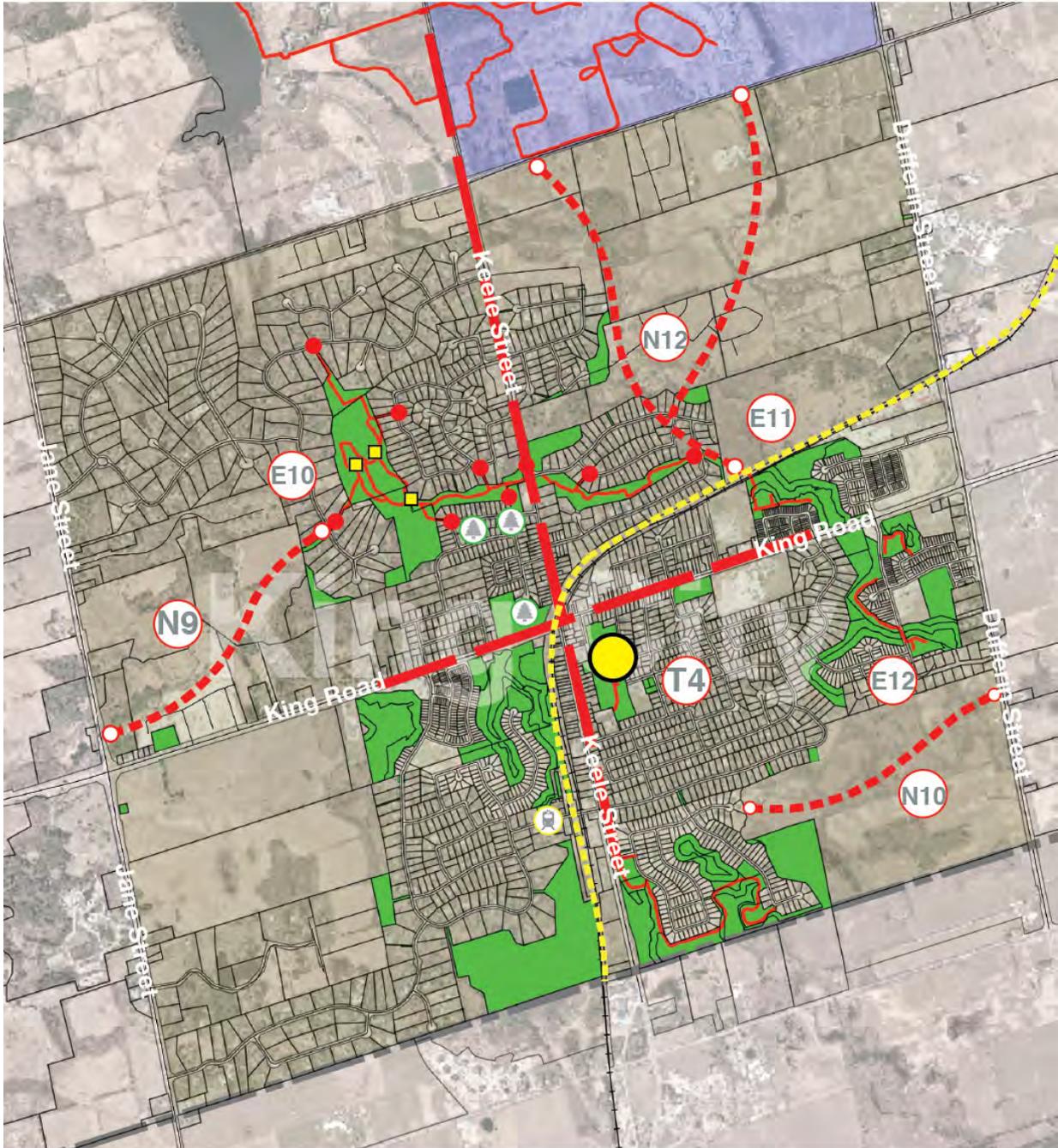


Figure 42: (top) King City Trails
Image courtesy of Wilson Markle.

Figure 43: (bottom) King City Trails
Image courtesy of Wilson Markle.



Legend

- | | |
|--|---|
|  Signed Bike Route |  Trail Access |
|  Proposed Trail Linkage |  Primary Trail Head |
|  Existing Trail |  Public Park |
|  Railway Line |  King City GO Station Rail |
| |  Bench |

Map 5: King City Trail Improvements
Recommended trail improvements in King City

Nobleton Trail Improvements

Nobleton's existing network should continue to be enhanced through new connections, improvements and regular maintenance. Key recommendations include:

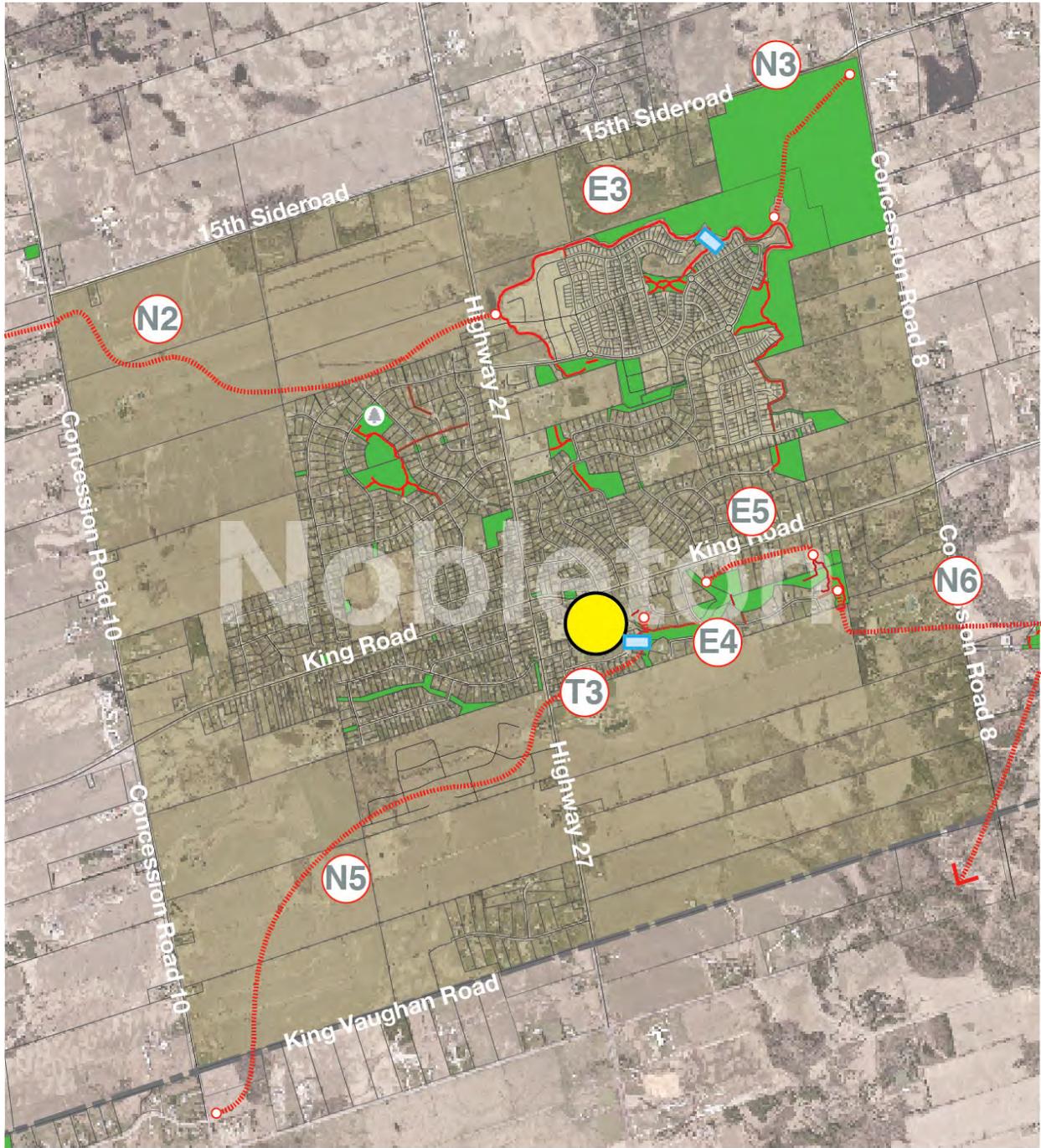
- ▶ Expanding the trail network through the ongoing subdivision planning process to provide trail connections through new developments and connections between the proposed and existing trail networks;
- ▶ Introduction of a primary trail head at the Nobleton Arena (T3);
- ▶ Improved wayfinding and signage to help users navigate the trail system. Mapping should consider including key landmark's and features (boardwalks, bridges, etc) to help users orient themselves;
- ▶ Formalization of the trail north and east of Woodhill Avenue (E5);
- ▶ Trail connection from Highway 27 to Cold Creek Conservation Area (N2);
- ▶ Trail connection in the northeast for a future link to the Happy Valley (N3),
- ▶ Trail from the Nobleton Arena (T3) to the TRCA trailhead for the Nashville Tract at Vaughan Road and 10th Concession (N5);
- ▶ Investigate opportunities with landowners to establish trail link from Woodhill Avenue to 8th Concession (N6);
- ▶ Improvements to existing structures to improve user safety and enjoyment including benches, bridges and boardwalks; and,
- ▶ General trail improvements to the existing trail tread to address erosion and slippery sections.

It is assumed that this list of proposed trail network improvements is not complete and that additional trail network improvements and opportunities will be identified as the trail network in Nobleton is planned and matures. A trails working group for the Township would assist in the planning, prioritizing and overseeing the implementation of the trail improvements.



Figure 44: (top) Existing trail south of Farmcrest Court connecting Woodhill Avenue to Janet Avenue.

Figure 45: (bottom) Existing informal trail alignment north and east of Woodhill Avenue.



Legend

- ⋯○⋯ Proposed Trail Linkage
- Existing Trail
- Primary Trailhead
- ▭ Bridge
- Public Park

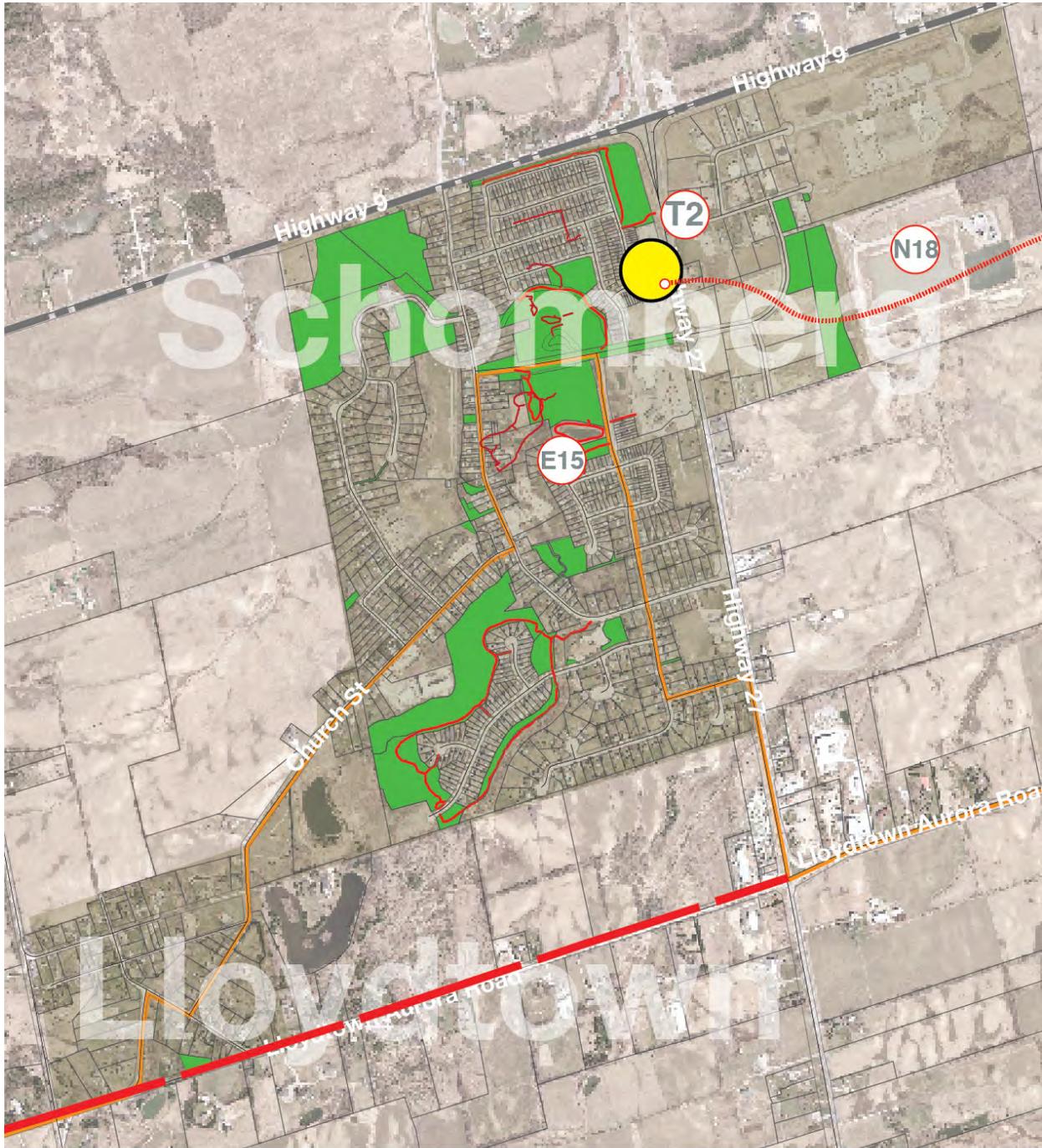
*Map 6: Nobleton Trail Improvements
Recommended trail improvements in Nobleton*

Schomberg Trail Improvements

Schomberg's existing network should continue to be enhanced through new connections, improvements and regular maintenance. Key recommendations include:

- ▶ Expanding the trail network through the ongoing subdivision planning process to provide trail connections through new developments and connections between the proposed and existing trail networks;
- ▶ Introduction of a primary trail head at the Trisan Centre (T2);
- ▶ Improved wayfinding and signage to help users navigate the trail system. Mapping should consider including key landmark's and features (boardwalks, bridges, etc) to help users orient themselves;
- ▶ New trail connection from the Trisan Centre trailhead east towards the Pottageville swamp linking Schomberg to Pottageville (N18);
- ▶ Improvements to existing structures to improve safety; and,
- ▶ General trail improvements to the existing trail tread to address erosion and slippery sections.

It is assumed that this list of proposed trail network improvements is not complete and that additional trail network improvements and opportunities will be identified as the trail network in Schomberg is planned and matures. A trails working group for the Township would assist in the planning, prioritizing and overseeing the implementation of the trail improvements.



Legend

- - - - - Proposed Trail Linkage
- Existing Trail
- Proposed Bike Route
- Proposed Signed Route
- Primary Trailhead

Map 7: Schomberg Trail Improvements
 Recommended trail improvements in Schomberg

Trailheads (T)

Trailheads are the primary starting points to the trail network. Through signage they should inform the public about safe trail use, provide a map of the network, and a trail etiquette message should be posted. Other suitable regulatory and wayfinding signage should also be provided. Trailheads are designated as either primary or secondary depending on space available and anticipated level of use. Primary trailheads should include:

- ▶ parking;
- ▶ signage;
- ▶ garbage and recycling receptacles;
- ▶ mapping; and;
- ▶ seating.

Four primary trailheads are proposed:

- T1 11th Concession;
- T2 Trisan Centre
- T3 Nobleton Arena; and,
- T4 King City Arena.

Secondary trailheads may also contain these features but will be smaller due to an anticipated reduced level of use. Secondary trailheads may be provided at locations where trail users might join the trail from another connecting trail. Five secondary trailheads are recommended:

- T5 Hall Lake;
- T6 Highway 9 at Pottageville;
- T7 7th Concession North;
- T8 7th Concession South;
- T9 Centennial Park;
- T10 ORT at Jane Street; and,
- T11 ORT at Dufferin Street.

However, the locations for primary and secondary trailheads may change as other opportunities arise. New sports parks or recreation centres may be determined as suitable locations for trailheads in the future.

In addition to these nine Township of King Trailheads, there are eight existing or planned trailheads by other agencies within the Township that operate trails with designated trailheads. This includes trailheads owned and operated by the Toronto and Region Conservation Authority, Lake Simcoe Region Conservation Authority, York Region, University of Toronto, and Ontario Nature. These locations need to be considered in the planning and implementation of King's trail network as well as properly identified on mapping. These include:

- T12 Bolton Tract;
- T13 Cold Creek Conservation Area (TRCA and King);
- T14 Nashville Tract (TRCA);
- T15 7th Concession (York Region);
- T16 Thornton Bales (LSRCA);
- T17 Koffler Scientific Reserve at Jokers Hill (U of T);
- T18 Cawthra Mulock (Ontario Nature); and,
- T19 Cawthra Mulock (Ontario Nature).

Parking

At the primary trailheads, parking should be provided to accommodate trail users. Where trails allow equestrian use, parking should be configured to accommodate vehicles pulling horse trailers. In addition to vehicular parking, designated space for bike parking should be provided.

Garbage and Recycling Receptacles

Garbage and recycling containers should be provided at trailheads to help minimize littering on the trail and inappropriate garbage disposal. Receptacles should be animal-proof and sized according to anticipated level of use.

Receptacles should not be provided along the trails to encourage people to pack out their garbage and to make collection easier. Where dogs are permitted, poop and scoop signage along with waste baggy dispensers should be provided to encourage dog owners to carry out waste.

Primary Trailheads

- T1** 11th Concession
- T2** Trisan Centre
- T3** Nobleton Arena
- T4** King City Arena;

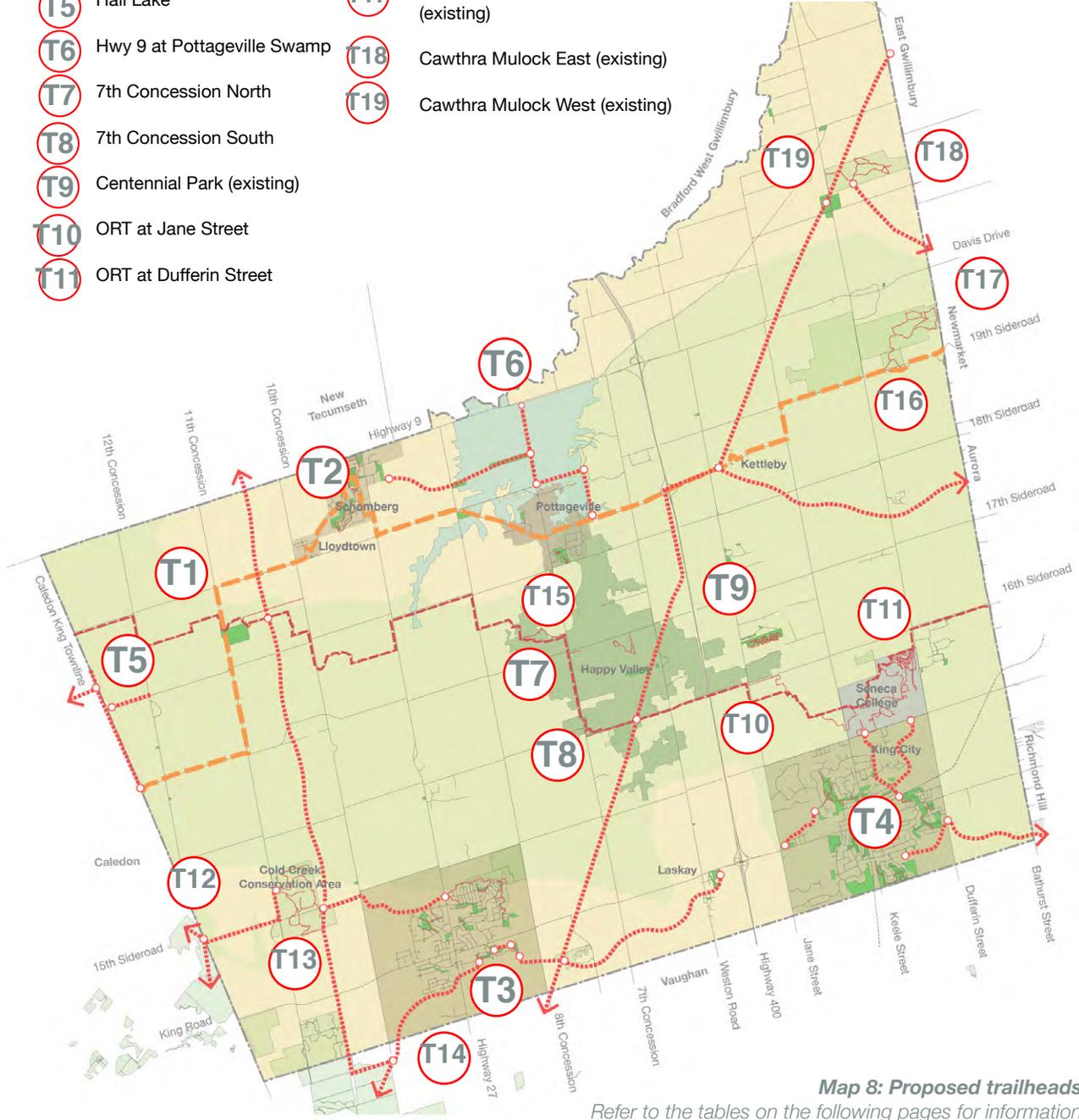
Secondary Trailheads

- T5** Hall Lake
- T6** Hwy 9 at Pottageville Swamp
- T7** 7th Concession North
- T8** 7th Concession South
- T9** Centennial Park (existing)
- T10** ORT at Jane Street
- T11** ORT at Dufferin Street

Existing and Planned Trailheads (by others)

- T12** Bolton Tract Trailhead (planned)
- T13** Cold Creek Conservation Area (existing)
- T14** Nashville Tract (planned)
- T15** York Forest (existing / upgrades planned)
- T16** Thornton Bales (existing)
- T17** Koffler Scientific Reserve at Jokers Hill (existing)
- T18** Cawthra Mulock East (existing)
- T19** Cawthra Mulock West (existing)

- Unopened Road Allowance
- Oak Ridges Moraine Trail
- Greenbelt Cycling Route (2015)
- Existing Hiking Trail
- Proposed Paved Shoulder
- Proposed Signed Bike Route
- Proposed Bradford West Gwillimbury Holland Marsh Trail
- Proposed Trail Link/Access
- Proposed Trail Link (adjacent municipality)
- Proposed Off-Road Trails



Map 8: Proposed trailheads
 Refer to the tables on the following pages for information on each proposed trailhead improvement.

Primary Trailhead Recommendations

T	Primary Trailheads	Location	Programming
T1	11th Concession at Oak Ridges Moraine Trail	Township property between 18th and 19th Sideroad	<ul style="list-style-type: none"> • Parking • Garbage and recycling receptacles • Trail Map • Access Gate
T2	Trisan Centre		<ul style="list-style-type: none"> • Formalized parking (existing) • Equestrian parking • Garbage and recycling receptacles • Trail Map • Access gate
T3	Nobleton Arena	Nobleton Arena on Old King Road	<ul style="list-style-type: none"> • Formalized parking (existing) • Garbage and recycling receptacles • Trail Map
T4	King City Arena	King City Arena at Doctors Lane	<ul style="list-style-type: none"> • Parking (existing) • Garbage and recycling receptacles • Trail Map

Seating

Opportunities for seating will help improve the trail user’s experience. Seating is particularly important at trailheads, but should also be considered at the top of short climbs, at trail intersections / decision nodes, and at proposed scenic viewing areas.

Trailhead Partners

Comments

<ul style="list-style-type: none"> • Oak Ridges Trail Association • Waterfront Regeneration Trust 	<ul style="list-style-type: none"> • New trailhead • Located at intersection of multiple trails • Gateway destination for those entering King from the west • Opportunities to support equestrian riders should be investigated
<ul style="list-style-type: none"> • Lake Simcoe Region Conservation Authority 	<ul style="list-style-type: none"> • Section of existing parking lot may be designated for trail users
	<ul style="list-style-type: none"> • Section of existing parking lot may be designated for trail users
<ul style="list-style-type: none"> • King City Trails Committee 	

Table 6: Primary trailhead recommendations
Refer to “Map 6: Proposed trailheads” on page 77 for the location of each recommendation.

Secondary Trailhead Recommendations

T	Secondary Trailheads	Location	Programming
T5	Halls Lake	At King Caledon Townline between 18th and 19th Sideroad	<ul style="list-style-type: none"> • Signage
T6	Pottageville	Highway 9 at 7th Concession unopened Road Allowance	<ul style="list-style-type: none"> • Signage
T7	7th Concession at Happy Valley	7th Concession north of 17th Sideroad.	<ul style="list-style-type: none"> • Formalized parking • Equestrian parking • Garbage and recycling receptacles • Trail Map • Access gate
T8	7th Concession South	7th Concession south of 16th Sideroad	<ul style="list-style-type: none"> • Road side parking • Signage
T9	Centennial Park	Jane Street north of 16th Avenue	<ul style="list-style-type: none"> • Parking • Signage
T10	Oak Ridges Trail at Keele Street	Keele Street	<ul style="list-style-type: none"> • Road side parking • Signage
T11	Oak Ridges Trail at Dufferin Street	Dufferin Street	<ul style="list-style-type: none"> • Road side parking • Signage

Trailhead Partners	Comments
<ul style="list-style-type: none"> • Caledon 	<ul style="list-style-type: none"> • Opportunity to connect to new community in Caledon
<ul style="list-style-type: none"> • Lake Simcoe Region Conservation Authority • Bradford West Gwillimbury 	<ul style="list-style-type: none"> • Link to Bradford West Gwillimbury proposed trail route around the Holland Marsh / Canal
<ul style="list-style-type: none"> • Nature Conservancy • Oak Ridges Trail Association 	<ul style="list-style-type: none"> • Currently used for access informally • Improve for equestrian access / alterations to existing gate needed • Limited space for parking makes location a challenge
<ul style="list-style-type: none"> • Nature Conservancy of Canada • Oak Ridges Trail Association 	<ul style="list-style-type: none"> • Steep hill limits access and visibility which may create safety issues (CPTED)
<ul style="list-style-type: none"> • Oak Ridges Trail Association 	<ul style="list-style-type: none"> • Existing access to Mountain Biking Trails • Signage improvements would help improve trail user's experience • Currently a popular informal access point.
<ul style="list-style-type: none"> • Oak Ridges Trail Association 	<ul style="list-style-type: none"> • Currently a popular informal access point.

Table 7: Secondary trailhead recommendations
Refer to "Map 6: Proposed trailheads" on page 77 for the location of each recommendation.

Existing and Planned Trailheads (by others)

T	Existing and Planned	Location	Programming
T12	Bolton Tract Trailhead	Columbia Way and Caledon King Townline	<ul style="list-style-type: none"> • Parking • Trail Map
T13	Cold Creek Conservation Area	Visitor Centre	<ul style="list-style-type: none"> • Formalized parking • Garbage and recycling receptacles • Trail Map
T14	Nashville Tract Trailhead	10th Concession and King Vaughan Road	<ul style="list-style-type: none"> • Parking • Trail Map
T15	York Regional Forest at 7th Concession	West of 7th Concession north of 17th Sideroad	<ul style="list-style-type: none"> • Formalized parking • Equestrian parking • Garbage and recycling receptacles • Trail Map • Access gate
T16	Thornton Bales	19th Sideroad west of Bathurst Street	<ul style="list-style-type: none"> • Formalized parking • Garbage and recycling receptacles • Trail Map
T17	Koffler Scientific Reserve at Jokers Hill	Bathurst St. North of 18th Sideroad	<ul style="list-style-type: none"> • Formalized parking • Garbage and recycling receptacles • Trail Map
T18	Cawthra Mulock West	Dufferin Street north of Miller's Sideroad	<ul style="list-style-type: none"> • Parking • Signage
T19	Cawthra Mulock East	Bathurst Street north of Miller's Sideroad	<ul style="list-style-type: none"> • Parking • Signage

Trailhead Partners

Comments

<ul style="list-style-type: none"> • Township of King • Toronto and Region Conservation Authority 	<ul style="list-style-type: none"> • Trailhead planned as part of the Bolton Resource Management Tract Trail Plan
	<ul style="list-style-type: none"> • Existing Trailhead • Signage improvements required in future to address Township wide network
<ul style="list-style-type: none"> • Township of King • Toronto and Region Conservation Authority 	<ul style="list-style-type: none"> • Trailhead planned as part of the Nashville Resource Management Tract Trail Plan
<ul style="list-style-type: none"> • Township of King • York Region 	<ul style="list-style-type: none"> • York Region currently investigating improvements to trails and trailhead
<ul style="list-style-type: none"> • Township of King • Lake Simcoe Region Conservation Authority • University of Toronto 	<ul style="list-style-type: none"> • Existing trailhead • Signage improvements would help improve trail user's experience • Garbage and recycling pickup by Township
<ul style="list-style-type: none"> • Township of King • University of Toronto 	<ul style="list-style-type: none"> • Existing trailhead • Signage improvements would help improve trail user's experience • Garbage and recycling pickup by Township
<ul style="list-style-type: none"> • Ontario Nature 	<ul style="list-style-type: none"> • Existing trailhead • Signage improvements would help improve trail user's experience • Garbage and recycling pickup by Township
<ul style="list-style-type: none"> • Ontario Nature 	<ul style="list-style-type: none"> • Existing trailhead • Signage improvements would help improve trail user's experience • Garbage and recycling pickup by Township

Table 8: Existing and planned trailheads (by others)
 Refer to "Map 6: Proposed trailheads" on page 77 for the location of each recommendation.

Signage and Wayfinding (S)

An overall strategy for trail signage is required to help enhance the trail user's experience. This includes:

- ▶ Trailhead Panel (Primary);
- ▶ Trailhead Panel (Secondary);
- ▶ Trail Maps;
- ▶ Trail Information Signs;
- ▶ Trail Markers;
- ▶ Interpretive Panels; and,
- ▶ Road and Highway Directional Signs.

Where established trails have their own signage and wayfinding systems, they should remain in place and not be replaced by King's signage and wayfinding strategy. Instead, the proposed system of trail information, including maps, and interpretive panels should compliment to the system already in place. However, the Township should work with individual trail managers to locate an overall trail network map at these locations / trailheads to inform users of the larger Township wide trail system should they wish.

Some key considerations in the design of the signs include:

- ▶ Use of vandal and fade resistance materials;
- ▶ Easy replacement to accommodate changes to the overall trail network as new trails are constructed;
- ▶ Accessibility for Ontarians with Disabilities Act (AODA) compliance (i.e. serif vs. non serif and contrast level);
- ▶ Graffiti resistance
- ▶ Integration of text and graphics in a bold, clear arrangement;
- ▶ Text written in short, simple sentence at a grade 3 reading level;
- ▶ Consistency in text, graphics and layout across the entire system.

A graphic design professional should be retained to develop the sign strategy, templates and mapping for the Township as one of the first implementation tasks. The following provides an overview of the recommended sign types along with general sign guidelines.



Figure 46: (top) Information sign helping to keep hikers on the trail.

Figure 47: (bottom) Trail marker in Cawthra Mulock Nature Reserve.

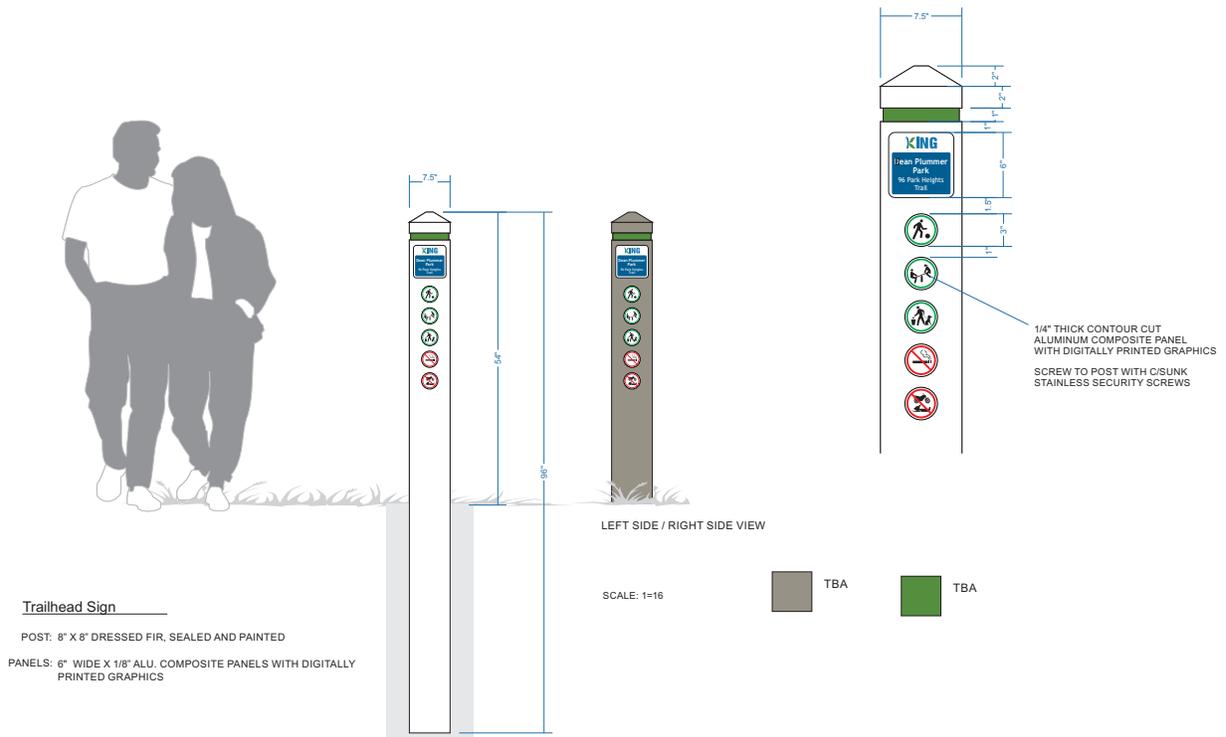


Figure 48: (top) Information kiosk at Crothers Woods

Figure 49: (bottom) New sign concept for the Township of King prepared by Allograph.

Trailheads (Primary and Secondary)

At the trailheads / entrances to all trails in King Township, information regarding trail safety and user etiquette is required to help enhance the trail user's experience. Key features of these information signs should include:

- ▶ Trail context and larger trail network map
- ▶ Trail route map;
- ▶ Location information in case the user needs emergency assistance;
- ▶ Information regarding trail difficulty and distances to key destinations;
- ▶ Permitted trail uses;
- ▶ Information on applicable bylaws;
- ▶ Information regarding trail safety;
- ▶ Trail etiquette; and,
- ▶ Contact information to report trail management and maintenance concerns.

Trailhead signs should indicate:

- ▶ “No Smoking, No Fires, No Fireworks”;
- ▶ “In Case of Emergency Call 9-1-1”;
- ▶ Trail head location/coordinates should be indicated on the sign.



Figure 50: (top) Trailhead signage at Crothers Woods in Toronto.
Image courtesy of the City of Toronto.

Figure 51: (bottom) Trail information sign at Crothers Woods, Toronto.

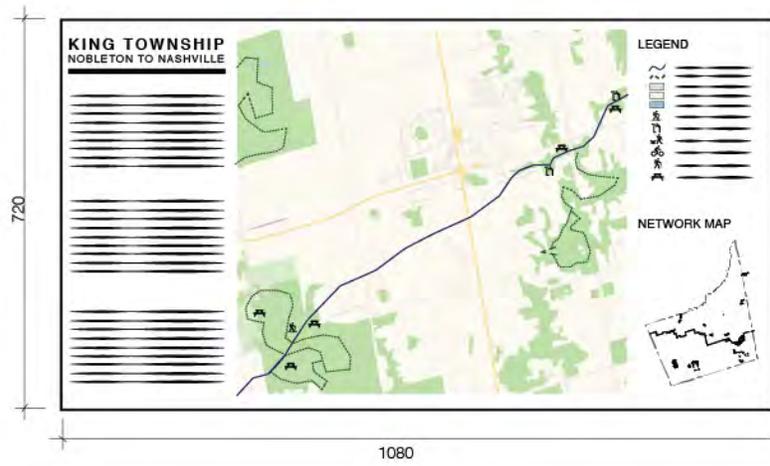
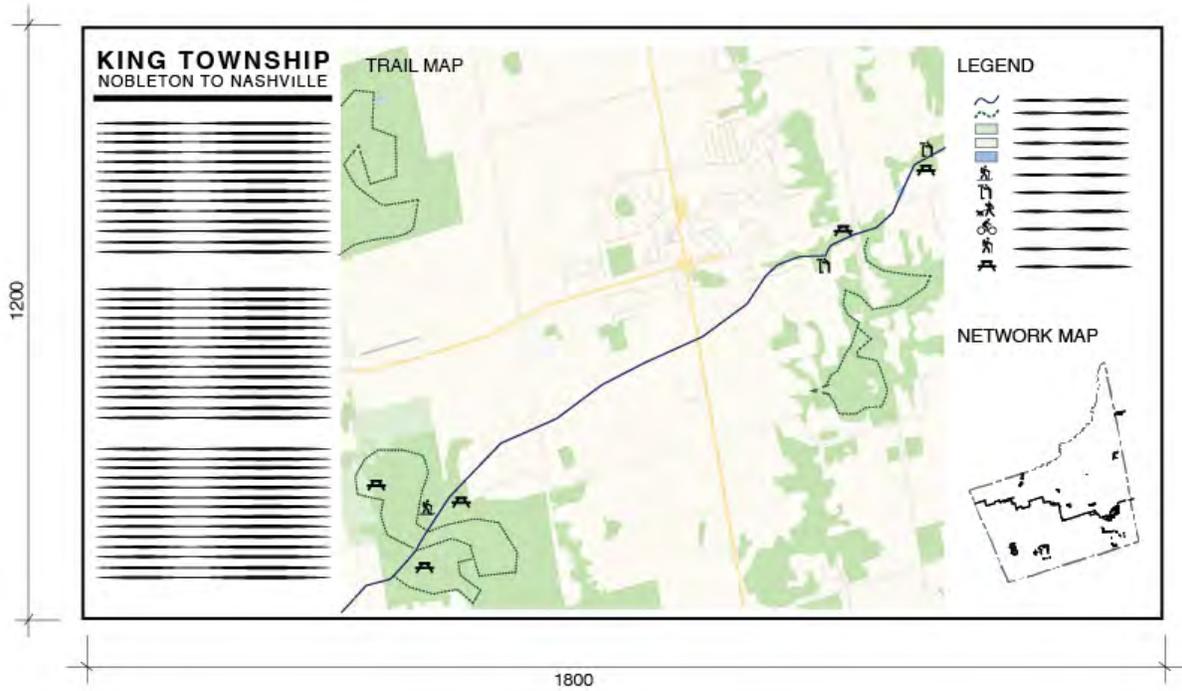


Figure 52: Example of primary and secondary trailhead maps.

Trail Maps

A simplified version of the trailhead signage is required at key locations along the trail network. Clear and accurate maps will improve user experience and improve safety. At a minimum trail maps should include the following:

- ▶ Trail context and larger trail network map;
- ▶ Trail route map; and,
- ▶ Information regarding trail difficulty and distances to key destinations.



Figure 53: (top) Humber Valley Trail Map
A durable, fade resistant product needs to be used to withstand the elements.

Figure 54: (bottom) Mapping on the Cawthra Mulock trail

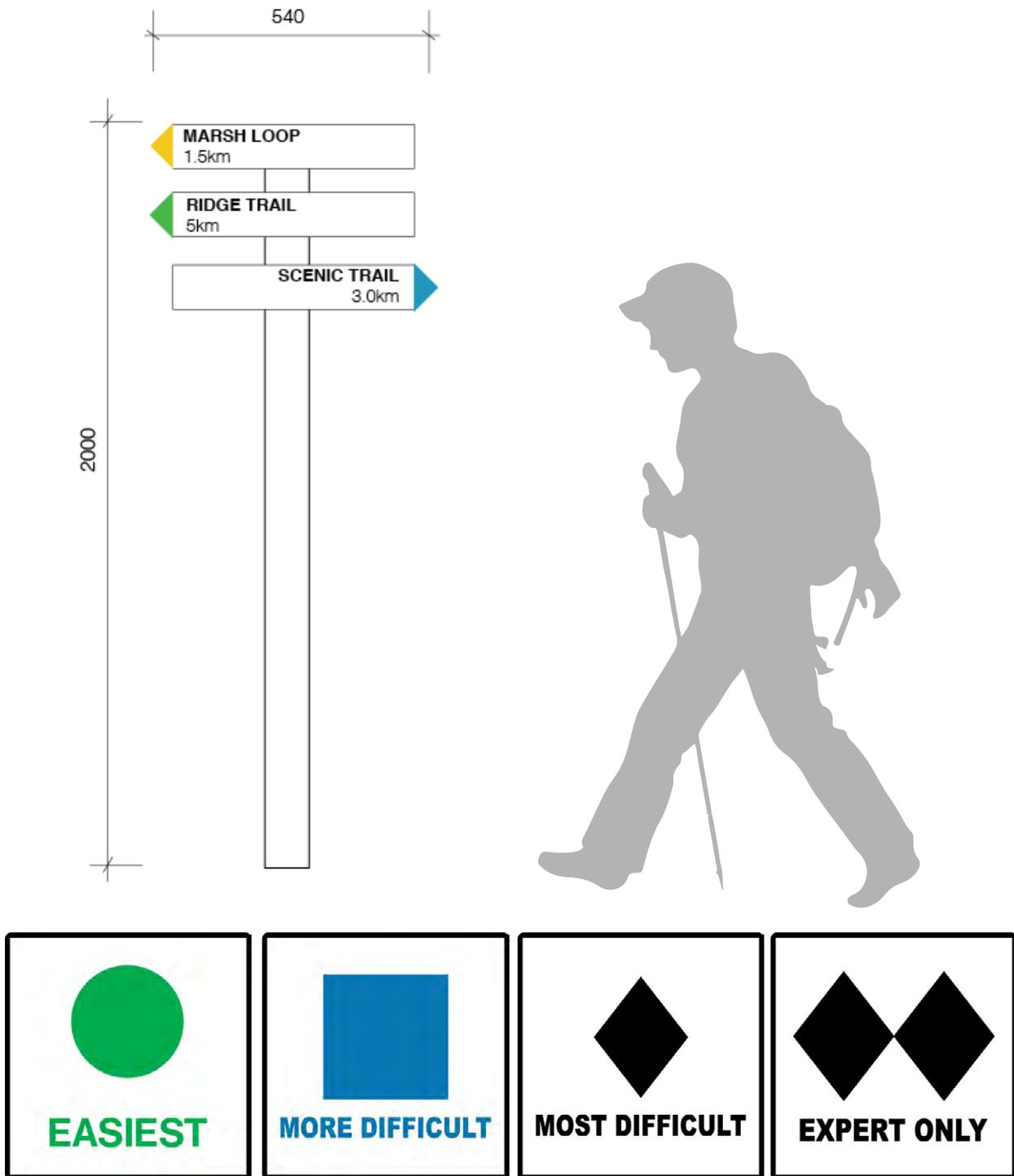


Figure 55: (top) Possible design approach for trail wayfinding

Figure 56: (bottom) Trail difficulty ratings
As the trail system evolves a range of trail difficulties should be provided to cater to the various trail user needs and desires.

Trail Information

Trail information signs should be provided at key trail intersections and decision nodes to help direct users. Space permitting they may also provide information regarding permitted uses.

Signs indicating closed trails, private property, restoration efforts for example should also be clearly indicated along the trail route. The facing page provides a number of examples.

These signs will typically be fabricated of aluminium with vinyl.





Figure 57: Various trail markers
Examples of the different types of trail information and wayfinding signs used on trails . King should develop a consistent design aesthetic for all new signs used.

Trail Markers

Directional/wayfinding signage is needed throughout the trail network to identify entrances, demarcate the trail to help keep users on trail, and to provide information regarding routes, destinations and distances to key locations. Signage should be standardized throughout the trail network and build upon the system employed elsewhere in King Township to provide consistency across the network.

Where the Township's trail connects to another trail network, such as the Oak Ridges Trail or the Cawthra Mullock trail, the King signage should defer to these other networks and avoid duplication to minimize confusion.

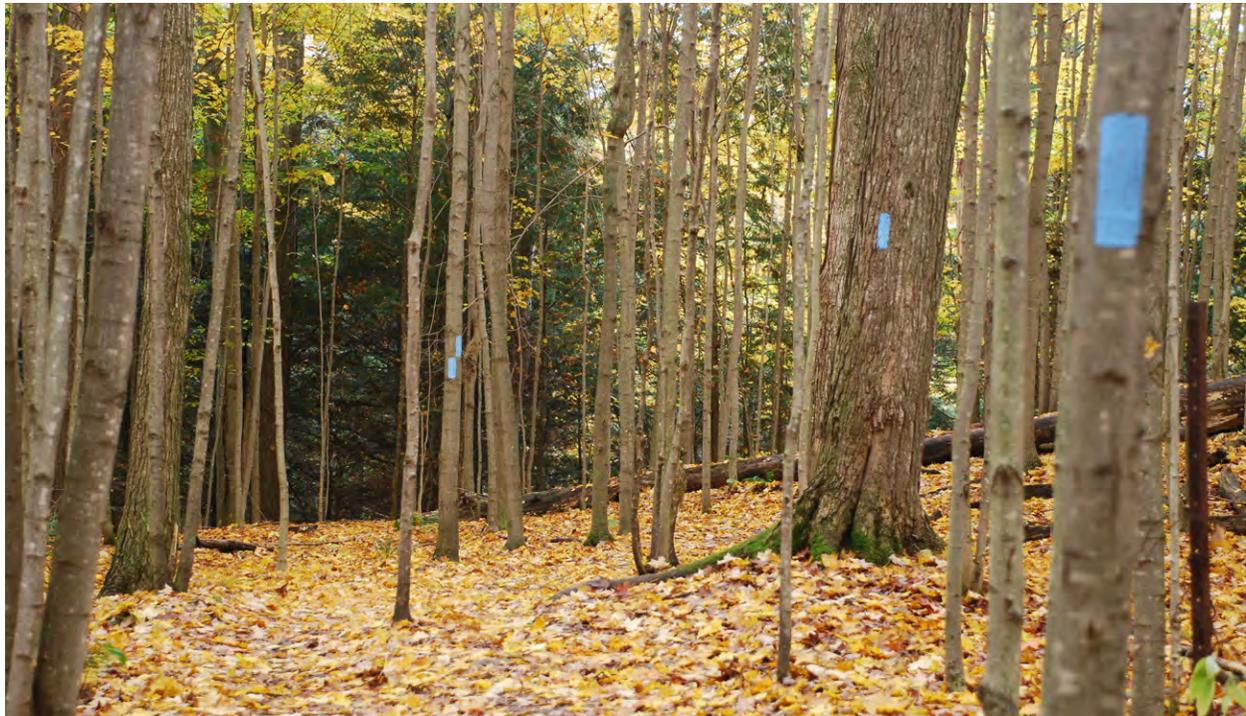


Figure 58: (top) Trail marker in Cawthra Mullock

Figure 59 (bottom) Trail blazing in Thornton Bales

Blue blazes identify ORTA's Koffler-Bales sidetrail.

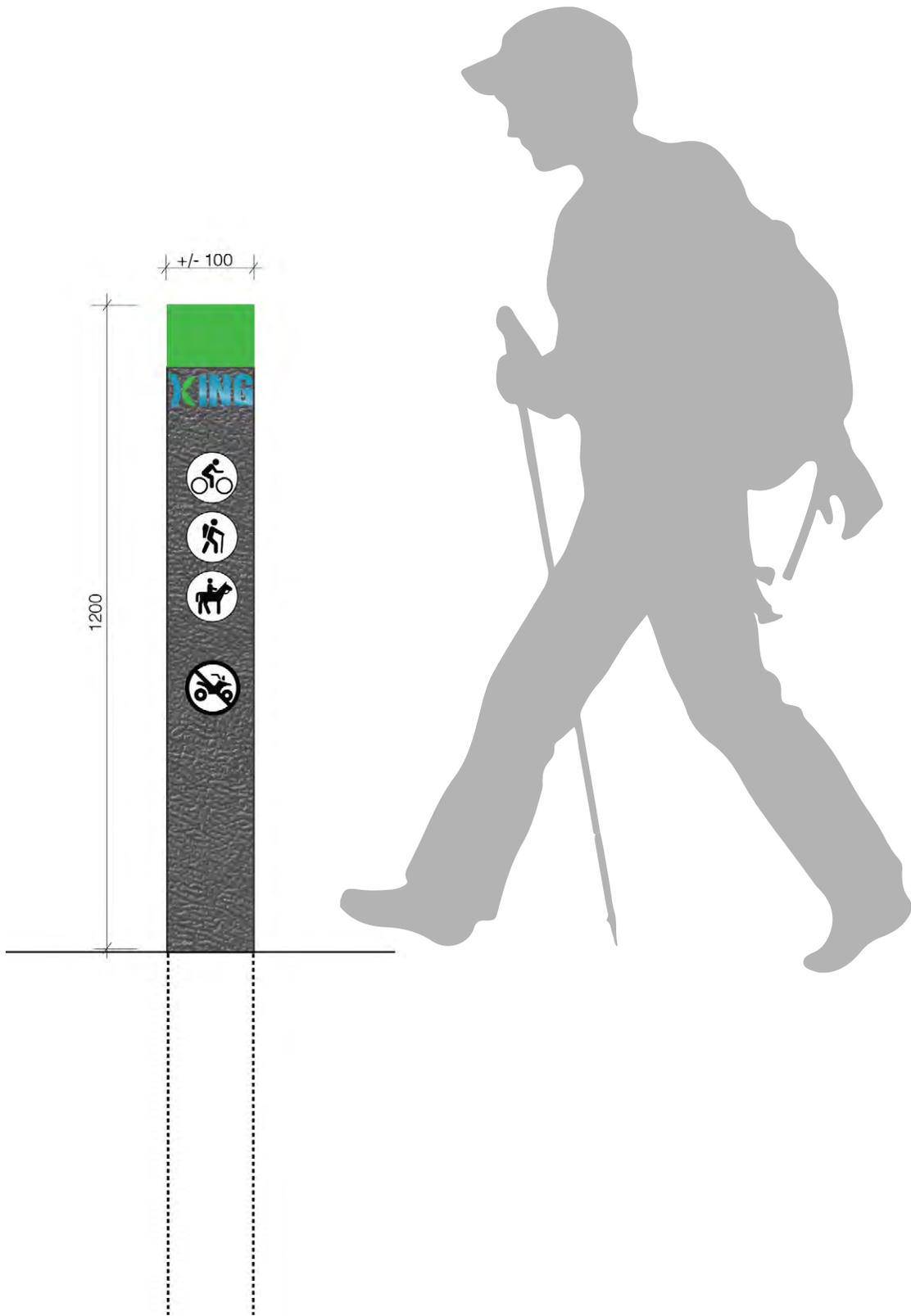


Figure 60: Possible trail marker design for Trails in King Township
Suggested trail marker based on the trail marker used in Cawthra Mulock and the Goldie Feldman Nature Reserve.

Interpretation

Interpretive / educational panels located throughout the trail network will enhance the trail user experience and educate visitors about the special features found along the trail. Possible interpretive themes which could be addressed include:

- ▶ Wildlife Habitat;
- ▶ Forest ecology and restoration;
- ▶ Invasive species;
- ▶ Cultural History; and,
- ▶ Natural History.

These signs will typically be constructed from high pressure laminate.



Figure 61: (top and bottom) Interpretation Panel View of Habitat interpretation panel at Cawthra Mulock.

WHO LIVES IN KING TOWNSHIP

Wilson's Warbler (*Cardellina pusilla*)

Rose-breasted Grosbeak (*Pheucticus ludovicianus*)

Downy Woodpecker (*Picoides pubescens*)

Blue Jay (*Cyanocitta cristata*)

Southern Flying Squirrel (*Glaucomys volans*)

Monarch Butterfly (*Danaus plexippus*)

American Bullfrog (*Lithobates catesbeianus*)

Brown Trout (*Salmo trutta*)

Coyote (*Canis latrans*)

HISTORY OF THE OAK RIDGES MORAINE

LAKE HURON
Georgian Bay

LAKE SIMCOE

LAKE ONTARIO

UNITED STATES
New York

Figure 62: Sample Interpretation Panel
Possible themes for interpretive panels in King include wildlife and the Oak Ridges Moraine.

Road and Highway Directional Signs

Signs should be strategically located throughout the Township to direct drivers to the various trailheads in King. This includes both Highways (Highway 27 and the 400) and other major routes through King. These signs will not only be an important component of the trail signage and wayfinding strategy, but will also contribute to the marketing and promotion of the trail network.

The Township is currently developing a Wayfinding and Tourism Destination Signage Policy which will include directional signage to promote businesses and tourism destination within the Township. While still in the planning stages, the program will include directional signage to trails.



Figure 63: (top) Highway 400 Northbound
View of Highway 400 northbound approaching the exit to Highway 9.

Image credit: www.asphaltplanet.ca

Figure 64: (bottom) Highway 400 through King Township

Image credit: www.asphaltplanet.ca

Signage and Wayfinding Recommendations

S	Signage Type	Description
S1	Retain graphic design and sign professional to develop mapping and wayfinding template	<ul style="list-style-type: none"> Based on the guidelines provided in the Trails Master Plan, a professional graphic design company specializing in outdoor mapping and signs should be retained to develop the template for signage on all existing and future trail projects.
S2	Trailhead (Primary)	<ul style="list-style-type: none"> Placed at primary trails heads Information should include: <ul style="list-style-type: none"> ▶ Trail context and larger trail network map ▶ Trail route map; ▶ Location information in case the user needs emergency assistance; ▶ Information regarding trail difficulty and distances to key destinations; ▶ Permitted trail uses; ▶ Information regarding trail safety; ▶ Trail etiquette; and, ▶ Contact information to report trail management and maintenance concerns.
S3	Trailhead (Secondary)	<ul style="list-style-type: none"> Placed at Secondary trailheads Smaller version of primary trailhead sign
S4	Trail Information Signs	<ul style="list-style-type: none"> Consist of a variety of signs to address different applications including directions at trail intersections, trail restoration and closures, permitted trail users, and safety.
S5	Trail Markers	<ul style="list-style-type: none"> Trail markers placed along the trail route at approximately every 350 metres. Incorporate trail route identifier (i.e. colour) and permitted uses.
S6	Interpretive Panels	<ul style="list-style-type: none"> Located at places of natural, historical and cultural interest.
S7	Road and Highway Directional Signs	<ul style="list-style-type: none"> Work with Province and Region to have information regarding the trail system / directions to key trailheads added to Provincial highway signs. Stand alone signs at key locations to direct trail users on local roads.

Table 9: Signage and wayfinding recommendations

Trail Sign Design Guidelines

The following provides guidelines for the design and fabrication of the Township of King's trail signs. The intent of these guidelines are to provide the Township with a family of trail information signs that are:

- ▶ attractive;
- ▶ durable;
- ▶ easy to update / replace;
- ▶ cost effective; and,
- ▶ convey a consistent style and message.

A graphic design professional should be retained to develop the trail sign hierarchy and template to be used on all Township of King Signs. The family of signs produced should follow an overall strategy that is consistent and in keeping with the overall aesthetic of the Township, while at the same time allow for the signage to evolve and reflect the evolution of King's trail network.

As the Township and other trail partners develop and implement trails in King, the signs will need to be updated and expanded to reflect the built network of trails.

Material and Fabrication

All signs should be constructed as follows:

Trailhead and interpretive signs

- ▶ 1/2 -3/4" High Pressure Laminate (Embedded Phenolic Resin) exterior grade graphic panel or approved equal.
- ▶ finished panel must be fire retardant, impervious to moisture, and resistant to UV, scratching, impact, and graffiti.
- ▶ panel should be structurally rigid enough to be self supporting.
- ▶ panel should be mounted from backside with no penetrations through face of panel.
- ▶ Semi-Gloss surface finish to accentuates sign detail and diminish reflective light.
- ▶ minimum of 10 years against fading, delamination and weather deterioration.

Trail information signs

- ▶ 2.3 mm thick aluminium
- ▶ 3M vinyl skin (minimum thickness .091 in.)
- ▶ all printed vinyl is to have a UV-resistant, anti-graffiti clear over laminate applied to the face.

Trail markers

- ▶ Brown fiberglass two sided marker (3.9" x 60").
- ▶ Adhesive decals as per trail
- ▶ Distributed by Carsonite Composites · 800-648-7916 · www.carsonite.com or approved equal.

Temporary Signs

In situations where a sign is only needed for a short period of time (maximum 3 years), a temporary sign may be used to minimize costs. Key considerations include:

- ▶ digitally printed graphics on vinyl applique. Inks must be UV resistant and rated for exterior use.
- ▶ ink should exhibit no visible fading or degradation for a minimum of 3 years.
- ▶ printed graphics should be applied to a suitable substrate such as painted aluminum or factory finished aluminum composite panel.
- ▶ all printed vinyl is to have a UV-resistant, anti-graffiti clear over laminate applied to the face.

Dual Sided Trail Markers

Trail markers should be provided along all trails. These markers should:

- ▶ Dual sided.

- ▶ Placed at regular intervals (approximately every 200 metres) and at key decision nodes.
- ▶ Include a direction arrow decal and information regarding trail use.
- ▶ Colour coded to reflect trail loop (either post or decal).
- ▶ Decals should be U.V., vandal and weather resistant.

Graphic Design

Sign graphics should include the following:

- ▶ Colours, fonts and style of signs should follow a consistent family of styles to read as a cohesive set.
- ▶ Mapping produced should be consistent throughout the entire sign family and be developed for a wide range of print and online media at varying sizes including large scale outdoor signs, printed maps and digital (web site).
- ▶ Mapping should use simple graphics consistent with the overall signage strategy and follow AODA requirements for maximum legibility (refer to AODA guidelines below).

Sign Mounting

Directional and information signs should consider the following in regards to materials and installation:

- ▶ Signs should be placed with half a metre (500 mm) of the trail.
- ▶ Trail markers should be placed approximately every 200 metres and located to ensure they will not be obstructed from a season of tree or understory growth.
- ▶ Taller markers should be used where grasses and perennials may cover the marker.
- ▶ Each sign's installation detail should require minimal tools and equipment to execute.
- ▶ Tamper proof galvanized hardware should be used where applicable.

- ▶ Installation detail should allow for sign replacement without full replacement of supporting / post structure.

Accessibility for Ontarians with Disabilities (AODA)

The following guidelines provide direction on helping to make trail signs AODA compliant which will ensure the signs can be effective to a wide audience:

- ▶ avoid complicated, decorative and handwriting fonts. Sans-Serif fonts such as Helvetica, Aerial should be used.
- ▶ use a minimum font size of 12 point. Most fonts should be 18 point or larger.
- ▶ use bold text for emphasis.
- ▶ use a combination of upper case and lower case. Avoid sentences in all upper case. All upper case may be appropriate for titles.
- ▶ avoid justified text as it creates uneven spacing making the text more difficult to read.
- ▶ use a minimum 4.5:1 colour contrast ratio between background and foreground.
- ▶ use bullet point summaries rather than dense text.

Standard Information at Trailheads

All trailhead signs should include the following information:

- ▶ trail context and larger trail network map with a "you are here" indicator.
- ▶ trail route map.
- ▶ information regarding trail difficulty and distances to key destinations.
- ▶ permitted trail uses.
- ▶ information regarding trail safety.
- ▶ trail etiquette.
- ▶ contact information to report trail management and maintenance concerns.

- ▶ location information including coordinates to provide to Fire, Ambulance and Police in case of emergency.
- ▶ notice: “No Smoking, No Fires, No Fireworks”; and,
- ▶ “In Case of Emergency Call 9-1-1”.
- ▶ all signs should include the Township of King logo as well as all trail partners (i.e. land owner or trail management group or agency).
- ▶ QR Code linking to the Township’s trail website to provide updated information on the trail.

Effective Interpretive Sign Design and Placement

The planning and placement of interpretive signs on King’s trails should consider the following:

- ▶ provide an introductory panel at the trailhead to set the theme of the trail.
- ▶ use a provocative title, graphics and simple text to capture the audience.
- ▶ place signs at key destinations / places of interest.
- ▶ mount panels 35-45 degree angle to the ground to minimize visual intrusion.
- ▶ place in landscape to avoid pristine or scenic views.

Possible Suppliers

The following fabricators may be suitable for fabricating signs:

Custom High Pressure Laminate Signs and Mounting Systems

SH Immersive Environments

110 Wellington Street
Huntingdon QC
JOS 1HO
p. 450.264.6146
p. 1.800.363.5304
f. 450.264.6066

izone Imaging

2526 Charter Oak Drive
Suite 100
Temple, TX
76502 USA
t. 254.778.0722t.
f. 254.778.0938
e. info@izoneimaging.com

Dunleavy Cordun Inc.

289 Bridgeland Avenue
Suite 107
Toronto, ON
M6A 1Z6
1.877.737.3633
w. dunleavycordun.com

Trail Markers: Recommended supplier:

Berntsen international Inc.

PO Box 8670
Madison, WI
53708-8670
t. 1.800.249.9794
w. berntsen.com

Product: Carsonlite Dual-Sided Post

Operations & Maintenance Recommendations

O	Operations	Notes
O1	Establish a trails working group committee.	A trails working group committee should guide the planning and implementation of new trails and existing trail improvements. Committee should include representatives from key stakeholders groups including ORTA, King Trails, Parks & Recreation, Planning, equestrian riders and the public. One representative from each of the neighbouring eight municipalities should also have a seat at the table.
O2	Undertake trail audits of existing trails at the beginning of each season to ensure the route is safe and identify where maintenance is required.	Additional budget will need to be set aside as the trail network is expanded. For example trail audit to review but not be limited to trail tread, erosion, clearing of fallen trees and infrastructure repairs.
O3	Establish protocol and train staff for regular trail inspections.	Implementing program will help minimize Township's exposure to liability. Use a standardized check list to record observations and keep a record of inspections.
O4	Establish trail tip hot line and email through Customer Management System for the public to report any issues on the trails.	Establish number and email through Customer Management System for trail users to report issues along the trail route. For example issues pertaining to garbage clean up, vandalism or hazardous trail conditions. Contact information should be posted at trailheads.
O5	Install municipal garbage receptacles at Koffler Scientific Reserve at Jokers Hill and add collection to municipal collection route.	Work with University of Toronto to address litter and garbage collection issues at Koffler Scientific Reserve at Jokers Hill
O6	Provide animal proof garbage receptacles and dog waste bags at trailheads and add locations to municipal pick-up route.	Upgraded litter facilities will help keep trails clean and reduce the extent of regular maintenance along the route. Replacement of existing receptacles can occur as part of regular ongoing trail maintenance.
O7	Work with local landowners to establish trail routes.	Setup protocol for working with landowners to provide access across private lands. Ensure risk management initiatives are in place.
O8	Coordinate trail building work with invasive species management / control.	Work with Nature Conservancy of Canada to establish protocols and expand on work already underway in Happy Valley.

Table 10: Operations and maintenance recommendations

Trail Inspection Form

Trail Name:		Inspected by:	
Trail Section:		Date:	

TRAIL SURFACES

Surface Type:				
Surface Condition				
Deficiencies (circle)	Trip Hazard	Settlement	Ponding	Washout
	Cracking	Transition		
Repair Required:	Immediate	Short Term	Long Term	

STRUCTURES

	Location/Coordinates	Condition/Comments	
Steps:			
Retaining Walls:			
Bridges/Boardwalks:			
Culverts:			
Benches:			
Repair Required:	Immediate	Short Term	Long Term

VEGETATION

	Location/Coordinates	Condition/Comments	
Meadow / Grass:			
Shrubs:			
Trees:			
Other:			
Repair Required:	Immediate	Short Term	Long Term

SIGNAGE

	Location/Coordinates	Condition/Comments	
Sign 1:			
Sign 2:			
Sign 3:			
Sign 4:			
Sign 5:			
Repair Required:	Immediate	Short Term	Long Term

Operations & Maintenance (O)

To implement this master plan, the Township may consider establishing a trails working group with various public and stakeholder representatives with the mandate to guide the implementation of the Trails Master Plan. It is recommended that at the outset this working group meet a minimum of once per month. To avoid duplication, it is recommended that other groups (such as the King City Trails Committee or Cold Creek Stewardship) be incorporated / amalgamated so that trails issues in King as a whole can be addressed.

While final decisions regarding budgets, priorities and operations would still rest with Parks and Recreation Staff and Council, this working group would act as a sounding board to help steer the project.

One representative from each of the following stakeholders and two members of the public could also make-up the trails working group:

- ▶ Township of King Parks Department (1);
- ▶ Township of King Planning (1);
- ▶ Township of King Economic Development (1);
- ▶ York Region (1);
- ▶ Oak Ridges Trail Association (1);
- ▶ Council (1); and,
- ▶ Residents (2).

Representatives from each of the eight surrounding municipalities, conservation authorities (TRCA and LSRCA), and other land owners who manage trails in King (University of Toronto, Nature Conservancy of Canada and Ontario Nature) would be invited to attend relevant meetings as required on an as-needed basis.

In conjunction with a working group, the Township of King will need to ensure sufficient budget is set aside to address the existing and future trail network enhancements. This includes not only budget for regular inspections and maintenance to ensure the trails are in a state of good repair and clear of litter and debris, but also to minimize the Township's exposure to potential liability due to real or perceived safety concerns.

Staff and volunteers should be trained to conduct regular trail inspections and undertake repairs as required. This includes the removal of fallen trees, clearing brush, fixing damaged or missing wayfinding signage, and repairs and alterations to the trail tread to eliminate trip hazards or the pooling of water.

Inspections should occur seasonally, particularly in the early spring after the spring thaw to get the trail ready for the season. Follow-up inspections should take place monthly.

To assist with the inspection process, a standardized checklist should be used record observations and keep a record of conditions and repair work completed. An example checklist is provided on page 85.

Marketing and Promotion Recommendations

The following are the key recommendations pertaining to management, marketing and promotion of the trail network:

P	Marketing + Promotion	Notes
P1	Trails Map	Work with a graphic design company to develop a map of the trails network. This map will need to be easily updated the trail network is expanded. It should also be suitable for use in signage, in print and posting online. Mapping for individual routes will also be required and should be of a similar graphic quality.
P2	Trail Events	Look for opportunities to market the trail by hosting events such as guided hikes, naming contests, or photo contests.
P3	Design and maintain a trails website.	Build and maintain a online presence for the Township's trail network to encourage all-season trail use by residents and visitors to King Township.
P4	Work with adjacent municipalities and York Region to market the region as a hiking and trails destination.	Sharing of resources between municipalities will help capture a wider audience.
P5	Social Media Presence	Use social media to provide updates on trail conditions and trail events such as guided hikes or organized trail cleanups. Facebook and Twitter are the two primary social media tools that should be used to promote trails.

Table 11: Marketing and promotions recommendations

Marketing & Promotions (P)

Marketing and promoting the trails in King should be ongoing. Marketing trails will encourage use of the trails already in King, which will raise awareness and public support of trails which can lead to financial support and people volunteering their time and other resources to the expansion of the trail network. Without public support by local residents and those who use the trails, implementation of the master plan will be unsuccessful.

The following are some key tools the Township of King can use to market the trail network.

Trail Maps

A map of the trail network is a critical first step. While the various trails have their own individual maps, a consolidated maps which illustrate the entire network in King Township is needed. These maps can be used in a variety of print and online formats to educate and promote the trail.

A printed map is a good way to raise money for the trail. Advertising space can be sold around the map. Business can also pay to have their locations identified on the map.

Trail Events

Organized hikes and other events are a great way to promote trails. The Oak Ridges Trail Association conducts some 500 hikes per year across the entire length of the ORT with leaders certified by the Ontario Trails Council. Organized hikes encourage people to walk trails in a more social setting and to broaden their knowledge of the trail network. They can also be combined with trail specific initiatives such as trail cleanup days or trail repair or building days.

Adopt-A-Trail

Having local businesses, corporations, clubs and families sponsor segments of trails is a great way to raise funds to either build or maintain a trail. Signs giving credit to those who have donated their time and resources will help build support and long term commitment.

Contests

Holding contests in another way to generate interest. For example a contest to name a new unnamed trail can attract attention. A photo contests is another way to draw attention to the trails with the added benefit of having photos which celebrate the trail and its natural features.

On-line

Having a on-line presence is no longer optional. To attract interest from those living outside of King and to educate all potential users on the trail an interactive website supplemented with twitter and facebook is needed. For example the trails in the Neighbouring municipality of Caledon Peel Region are highlighted in a website (walkandrollpeel.ca) which lists all of the trails, provides a detailed trail map and allows users to plan a trail route. A tool for the trails in King as they are implemented would be an excellent resource to gain awareness and promote the system.

Trail Newsletters and Memberships

Offering a monthly or seasonal newsletter to promote the trails is a good way to inform the public of any trail initiatives. Distribution of the newsletter can be online and space can be sold to advertisers to offset the costs of preparing the document and raise money for trail maintenance and implementation.

Implementation Strategy

Implementation of this plan is organized into short, medium and long term priorities. A summary of the priority sequence is provided in the tables on the following pages.

Short Term (1 to 5 years)

Short term priorities are those that should be implemented within the next five years. Initiatives include operational and maintenance recommendations, development of a signage strategy, and improvements to existing trails, as well as the development of new trails within King's population centres. Marketing and promotions recommendations should also be initiated in the short term and be updated and incorporated in the medium and long term as new trails are implemented.

While some new trail initiatives are identified as short term they will be contingent on the subdivision process as the alignment of many trails will be integrated into the community design and implementation process. Therefore the timing for implementing some trails will be directly tied to the timing of the new development.

Medium (5 to 10 years)

Medium term priorities are focussed on linking the urban areas within King to each other to expand the trail network to other key destinations. This will allow trail users to travel between communities. Trailheads and signage associated with these specific trails would also be implemented under this phase.

Long Term (10+ years)

Long term initiatives are focussed on new trail connections to adjacent municipalities to expand the King Trail network beyond the municipal boundaries. Opportunities to use hydro corridors as trail corridors should also be considered long term priority items.

Assumptions

For each project an estimated construction cost is provided. These are rough order of magnitude costs to assist Municipal staff in assigning a budget to each project. These prices are based on general assumptions regarding site conditions and length of trail. These costs do not factor in site specific issues what would be determined at the detailed design stage once an alignment is selected. Once a trail is designed, further refinement of the estimate will be possible that more accurately reflects the existing site conditions and specific opportunities or challenges associated with the proposed alignment.

The estimates provided are in 2015 dollars and assume 15% markup for project development costs such as consulting fees, surveys, permits and other design costs to be incurred by the Township. It is also important to note that efficiencies, which could be realized from consolidating projects or enlisting volunteers in trail building for example, are not factored into these estimates. Estimates also do not assume costs such as land acquisition.

The following assumptions were made in assigning these costs:

2.5 Metre Wide Granular Trail

Clearing and Grubbing (\$9/lm)	\$9,000
Grading (\$8/lm)	\$8,000
Granular surface (\$20/lm)	\$20,000
Structures (allowance for bridges and boardwalks)	\$20,000
Wayfinding markers (@ 350 metres)	\$1,000
Map (avg. 1 / km)	\$1,000
Interpretive Panels (avg. 1 / km)	\$1,000
Sub total	\$60,000
20% Consulting / Design / Other	\$12,000
Total cost per kilometre	\$72,000
Total cost per metre	\$72

1.0 Metre Wide Natural Surface Trail

Clearing and Grubbing (\$4/lm)	\$4,000
Grading (\$3/lm)	\$3,000
Structures (allowance for bridges and boardwalks)	\$20,000
Wayfinding markers (@ 350 metres)	\$1,000
Map (avg. 1 / km)	\$1,000
Interpretive Panels (avg. 1 / km)	\$1,000
Sub total	\$30,000
20% Consulting / Design / Other	\$6,000
Total cost per kilometre	\$36,000
Total cost per metre	\$36

Short Term Trail Initiatives (1 to 5 years)

#	Description / Trail Reference	Approx. Length	Estimated Cost	Related Trail Improvements	Comments / Assumptions
O1	Establish Trails Working Group	N/A	Yearly allowance \$1,500	<ul style="list-style-type: none"> • O7 	<ul style="list-style-type: none"> • Primarily municipal staff and volunteer based • costs associated with meetings, advertising for members, and administration
O2 to O6	Trail audits, maintenance inspections and garbage collection		Assign Staff / operations Estimate \$500 / km	<ul style="list-style-type: none"> • All new trails 	<ul style="list-style-type: none"> • Routine inspection and maintenance will be required on all trails • Assign budget for existing and all new trails
O7	Work with local land owners to establish trail routes	N/A	Staff	<ul style="list-style-type: none"> • All new trails 	<ul style="list-style-type: none"> • Work should begin immediately on identifying routes for proposed trails and speaking with potentially affected landowners
P1 to P5	Marketing and Promotions	N/A	Yearly allow. TBD		<ul style="list-style-type: none"> • Mapping and preparing website dedicated to King's trails
S1	Signage Strategy / Graphic template	N/A	\$60,000	<ul style="list-style-type: none"> • All new and existing trails 	<ul style="list-style-type: none"> • Signs will be required for all existing trails and all new / future trails • Fabrication and installation part of trail implementation costs
E1 to E4, E6, E10 to E20	Existing Trails	Varies	\$45,000 / year	<ul style="list-style-type: none"> • Links to proposed new trails • Install new signage 	<ul style="list-style-type: none"> • Undertake routine inspection and maintenance
E7	7th Concession erosion repair	Approx. 800 metres of restoration	\$90,000	<ul style="list-style-type: none"> • Secondary trailhead improvement T7 • Trail improvements for equestrian riders E9, N22 	<ul style="list-style-type: none"> • GEMS report prepared for the Nature Conservancy of Canada (\$90,000) • \$35,000 for Equestrian Link improvements (N22) • Estimated cost to be revisited based on environmental consultants findings and recommendations

Short Term Trail Initiatives (1 to 5 years)

#	Description / Trail Reference	Approx. Length	Estimated Cost	Related Trail Improvements	Comments / Assumptions
E9	Work with land owners in the Happy Valley forest to sign and close redundant trails	17.2 km	\$200,000	<ul style="list-style-type: none"> 7th Concession erosion repair E7 Secondary trailhead improvement T7 	<ul style="list-style-type: none"> Assumes closing of approximately half of the trails Assumes trails to remain active require minimal work Cost assumes labour and materials to close trails and restore sections
N2	Nobleton to Cold Creek Conservation Area	3 km	\$216,000		<ul style="list-style-type: none"> 1 km of trail follows unopened road allowance Granular
N3	Nobleton Northeast	1.3 km	\$93,600		<ul style="list-style-type: none"> Granular
N9	King City West Link	1.5 km	\$108,000		<ul style="list-style-type: none"> Granular
N10	King City Southeast	1.5	\$108,000		<ul style="list-style-type: none"> Granular
N12	King City Northeast	4 km	\$288,000		<ul style="list-style-type: none"> Granular
T4	King City Arena Trailhead	N/A	\$15,000	<ul style="list-style-type: none"> New Trail N9 	<ul style="list-style-type: none"> includes signage and kiosk
T7	7th Concession in Happy Valley	N/A	\$20,000	<ul style="list-style-type: none"> Erosion Repair E7 Equestrian Trails (E9) 	<ul style="list-style-type: none"> Signage Kiosk Redesign of access gate

Total Short Term (1 to 5 years) \$1,411,100 (not including maintenance and staff costs)

Table 12: Short Term Trail Initiatives

Medium Term Trail Initiatives (5 to 10 years)

#	Description / Trail Reference	Approx. Length	Estimated Cost	Related Trail Improvements	Comments / Assumptions
N1	Bolton Resource Management Tract Link	2.5 km	\$80,000		<ul style="list-style-type: none"> • Timing contingent on TRCA's work on the BRMT trails
N5	Nashville Resource Management Tract Link	4 km	\$128,000		<ul style="list-style-type: none"> • Timing contingent on TRCA's work on the NRMT trails
N6	Nobleton Southeast Link	2 km	\$140,000		<ul style="list-style-type: none"> • Assumes granular path
N11	King City to Richmond Hill	2 km	\$140,000		<ul style="list-style-type: none"> • Assumes granular path
N18	Schomberg to Pottageville	7 km	\$244,000	<ul style="list-style-type: none"> • Trailheads T2 and T6 	<ul style="list-style-type: none"> • Natural Surface and Boardwalk
N20	Caledon Connection	4 km	\$280,000		<ul style="list-style-type: none"> • Assumes granular path
T1	11th Concession at Oak Ridges Moraine Trail	N/A	\$50,000		<ul style="list-style-type: none"> • Assumes gravel parking lot • Signage • Kiosk
T3	Nobleton Arena Trailhead	N/A	\$15,000	<ul style="list-style-type: none"> • Trail N5 	<ul style="list-style-type: none"> • Includes signage and kiosk
T2	Trailhead at Trisan Centre	N/A	\$15,000	<ul style="list-style-type: none"> • Secondary Trailhead T5 • New Trail N18 	<ul style="list-style-type: none"> • Includes signage and kiosk
T5	Halls Lake Trailhead	N/A	\$15,000	<ul style="list-style-type: none"> • Trail N20 	<ul style="list-style-type: none"> • Includes signage and kiosk
T6	Pottageville Trailhead	N/A	\$15,000	<ul style="list-style-type: none"> • Trail N18 and Trailhead T2 	<ul style="list-style-type: none"> • Includes signage and kiosk
T8	7th Concession South Trailhead	N/A	\$15,000		<ul style="list-style-type: none"> • Includes signage and kiosk
T9	Centennial Park Trailhead	N/A	\$15,000		<ul style="list-style-type: none"> • Includes signage and kiosk
T10	ORT at Keele St.	N/A	\$15,000		<ul style="list-style-type: none"> • Includes signage and kiosk
T11	ORT at Dufferin	N/A	\$15,000		<ul style="list-style-type: none"> • Includes signage and kiosk
Total Medium Term (5 to 10 years)			\$1,182,000	(not including maintenance and staff costs)	

Table 13: Medium Term Trail Initiatives

Long Term Trail Initiatives (10 years +)

#	Description / Trail Reference	Approx. Length	Estimated Cost	Related Trail Improvements	Comments / Assumptions
N4	Cold Creek CA to Nashville Tract	4 km	\$288,000		<ul style="list-style-type: none"> Follows hydro corridor Granular
N7	Nobleton to Laskay	6 km	\$432,000		<ul style="list-style-type: none"> Granular
N8	Nobleton to Happy Valley	6 km	\$432,000		<ul style="list-style-type: none"> Follows hydro corridor Granular
N13	Happy Valley to Kettleby	7 km	\$224,000		<ul style="list-style-type: none"> Follows hydro corridor Surface varies to address environmental sensitivity of forest
N14	Kettleby to Aurora	7 km	\$504,000		<ul style="list-style-type: none"> Follows hydro corridor Granular
N15	Kettleby to Cawthra Mulock	7 km	\$504,000		<ul style="list-style-type: none"> Granular Follows hydro corridor
N16	Cawthra Mulock to Newmarket	3 km	\$216,000		<ul style="list-style-type: none"> Granular Follows hydro corridor
N17	Cawthra to East Gwillimbury	5 km	\$360,000		<ul style="list-style-type: none"> Granular Follows hydro corridor
N19	Oak Ridges Trail to Highway 9	3 km	\$216,000		<ul style="list-style-type: none"> Granular Follows hydro corridor
N21	Cold Creek CA to Oak Ridges Trail	7 km	\$504,000		<ul style="list-style-type: none"> Granular Follows hydro corridor

Total Long Term (10 years +) \$3,680,000 (not including maintenance and staff costs)

Table 14: Long Term Trail Initiatives



Appendices

Trails Master Plan

Appendix A: Public Consultation

Appendix B: Trails Master Plan Maps

Appendix A: Public Consultation Presentation Materials

Public Meeting #1

Presentation Panels

Presentation Slides

Council Presentation

Presentation Slides

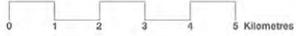
Public Meeting #2

Presentation Panels

Presentation Slides

Township of King Trails Master Plan Context

October 22, 2014



- King Township
- TRCA / LSRCA / U of T
- Happy Valley
- Pottageville Swamp
- Urban Development
- Water
- Oak Ridges Moraine Trail
- Greenbelt Cycling Route (2015)
- Existing Hiking Trail
- Hiking Trail (Equestrian)
- Existing Connection
- Planned / Proposed Future Connection

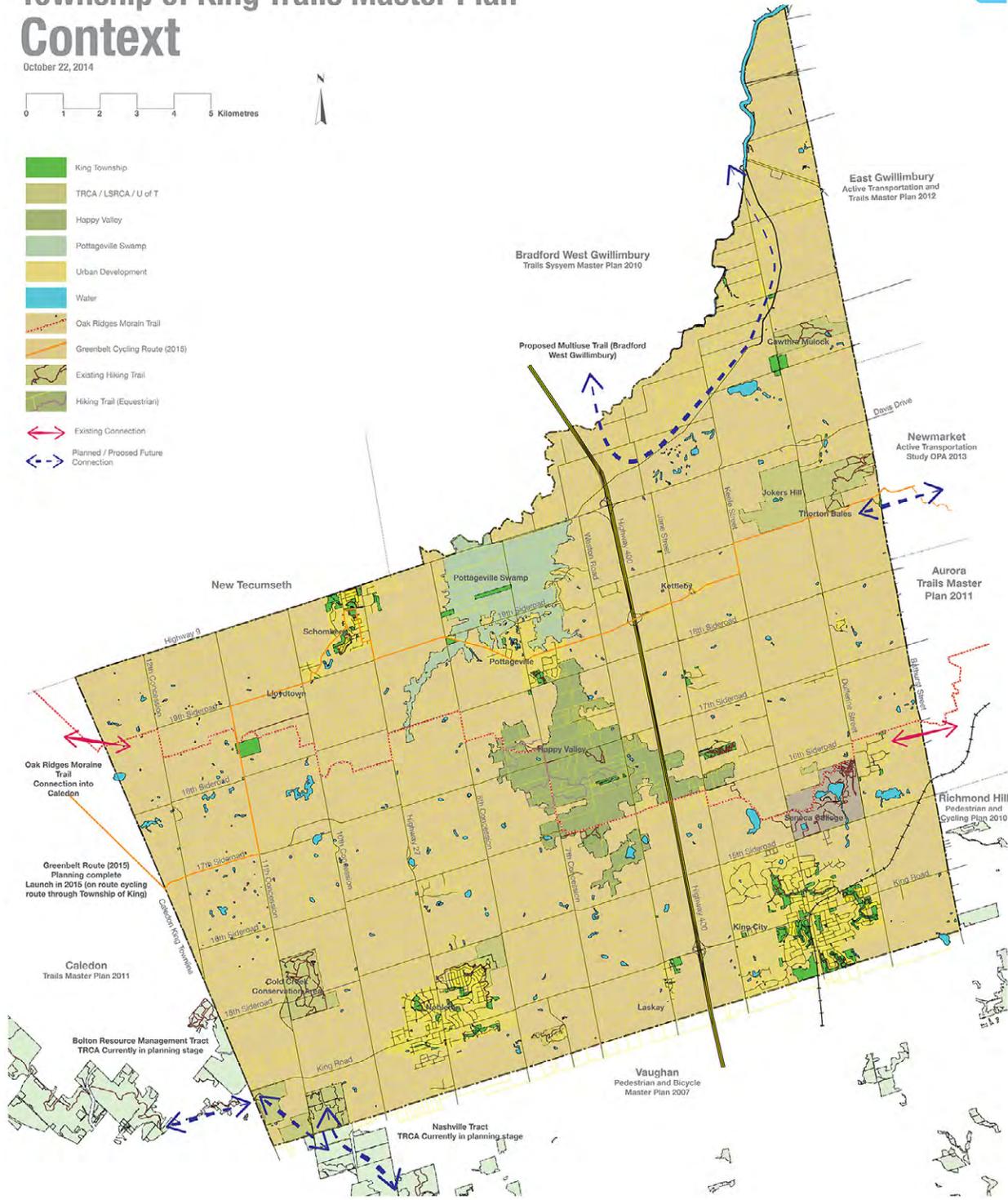


Figure 66: Presentation panel from workshop #1



Township of King Trails Master Plan

Existing Trails

October 22, 2014

- King Township
- TRCA / LSRCA / U of T
- Happy Valley
- Pottsgrove Swamp
- Urban Development
- Water
- Oak Ridges Morain Trail
- Greenbelt Cycling Route (2015)
- Existing Hiking Trail
- Hiking Trail (Equestrian)
- P Trail Parking
- R Roadside Parking

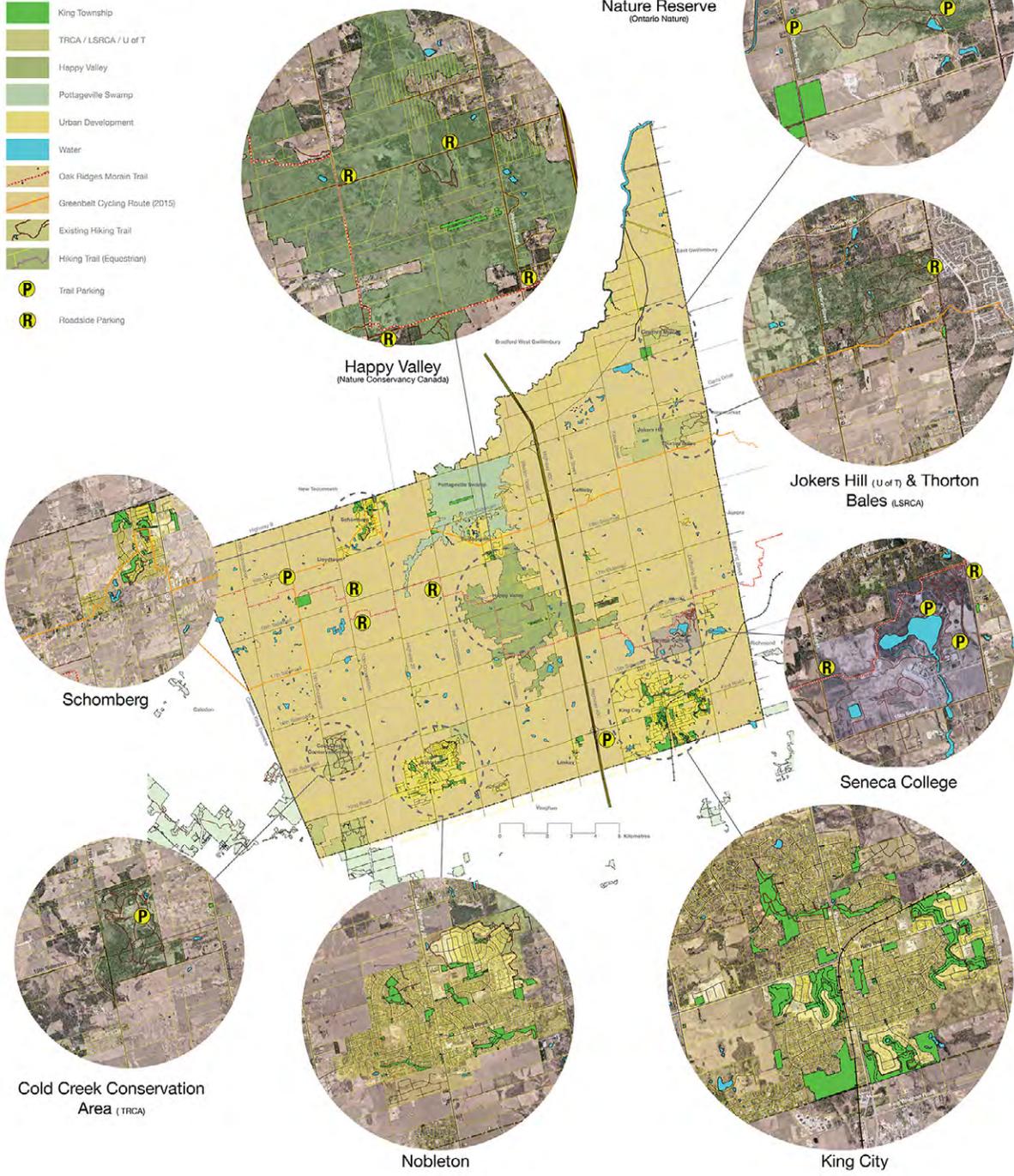


Figure 67: Presentation panel from workshop #1



King Trails Master Plan

7:00 PM	Introductions	(5 minutes)
7:05 PM	Presentation	(30 minutes)
7:35 PM	Questions and Clarifications	(10 Minutes)
7:45 PM	Table /Group Discussions	(45 minutes)
8:30 PM	Table / Group Reporting Back	(20 Minutes)
8:50 PM	Next Steps	(5 Minutes)
8:55 PM	Adjourn	

presentation

King Trails Master Plan

thinc design

- landscape architects
- trail design, parks and master planning
- experience with both large sites and small design projects in natural environments
- Project lead:
 - Mike Tocher



introductions

King Trails Master Plan

- Study purpose;
- Scope of work;
- Schedule;
- Context;
- Existing trails;
- Opportunities to leverage;
- Potential challenges; and,
- Areas for improvements.



presentation outline

King Trails Master Plan

Prepare a trails master plan for the Township of King that provides a connected network of trails with a focus on improving access and identifying trail enhancements.



study purpose

King Trails Master Plan

- Inventory, assessment and evaluation;
- Design recommendations;
- Implementation strategy;
- Operations and maintenance recommendations; and,
- marketing and promotion strategy.



scope of work

Figure 68: Presentation slides 1-6 from workshop #1

King Trails Master Plan

- Township inventoried trails in August
- Stakeholder meeting in September
- Data collection
- **Public meeting #1 (today)**
- Stakeholder meeting #2 in early November
- Public meeting #2 Late November
- Project completion in December



schedule

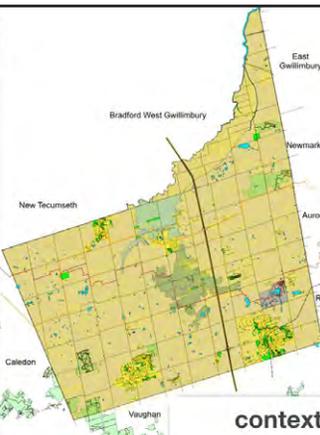
King Trails Master Plan

- Township of King Staff
- York Region Staff
- Nature Conservancy of Canada
- Oak Ridges Trail Association
- King City Trails Committee
- Cold Creek CA
- Toronto and Region Conservation Authority
- Lake Simcoe Region Conservation Authority
- King Trail Riders
- King Equestrian Voice
- Koffler Scientific Reserve (U of T)
- Ontario Trails Council

stakeholders consulted to date

King Trails Master Plan

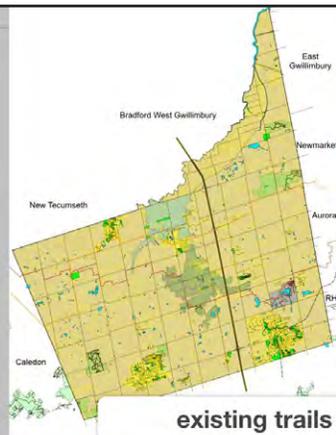
- King is 333 square km
- Oak Ridges Moraine Trail
- Greenbelt Trail
- King Transportation Master Plan
- Land Ownership
- Neighbouring Municipalities
- Trails being planned by TRCA



context

King Trails Master Plan

- Oak Ridges Moraine Trail
- Cold Creek CA
- Nobleton
- Schomberg
- King City
- Happy Valley
- Centennial Park
- Seneca
- Jokers Hill
- Thorton Bales
- Cawthra Mulock



existing trails

King Trails Master Plan

- **Oak Ridges Moraine Trail**
- Cold Creek CA
- Nobleton
- Schomberg
- King City
- Happy Valley
- Centennial Park
- Seneca
- Jokers Hill
- Thorton Bales
- Cawthra Mulock



existing trails

King Trails Master Plan

- Oak Ridges Moraine Trail
- **Cold Creek CA**
- Nobleton
- Schomberg
- King City
- Happy Valley
- Centennial Park
- Seneca
- Jokers Hill
- Thorton Bales
- Cawthra Mulock



existing trails

Figure 69: Presentation slides 7-12 from workshop #1

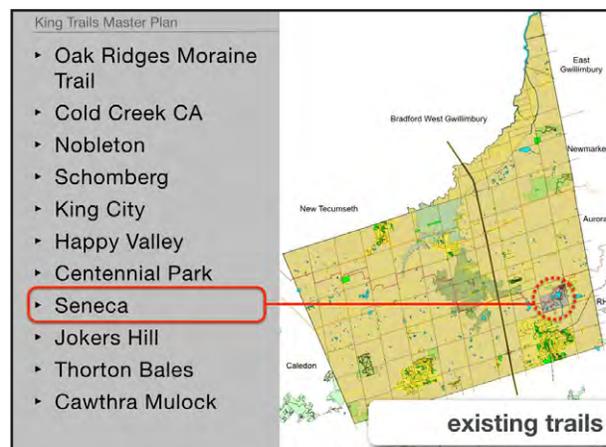
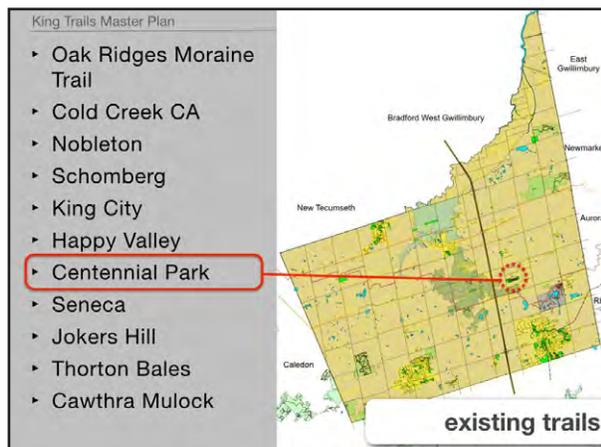
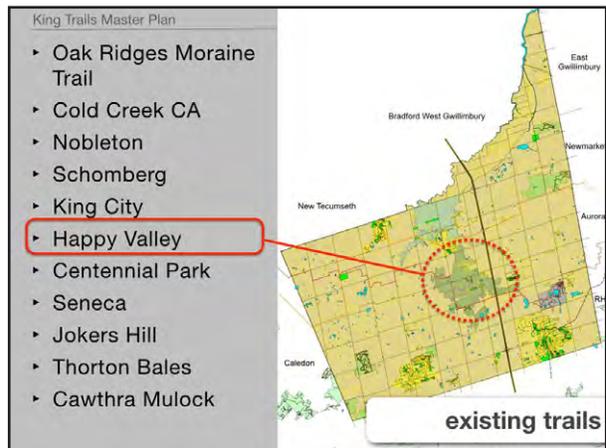
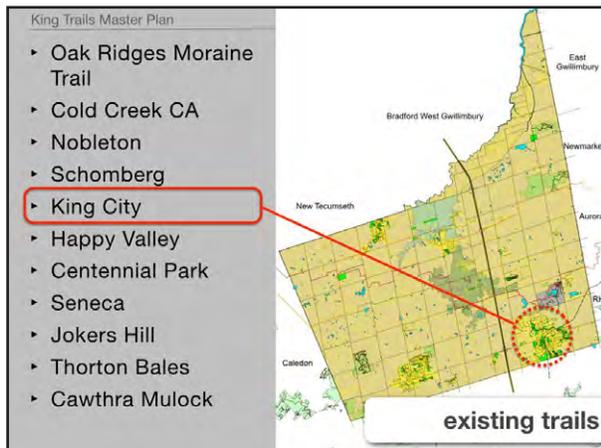
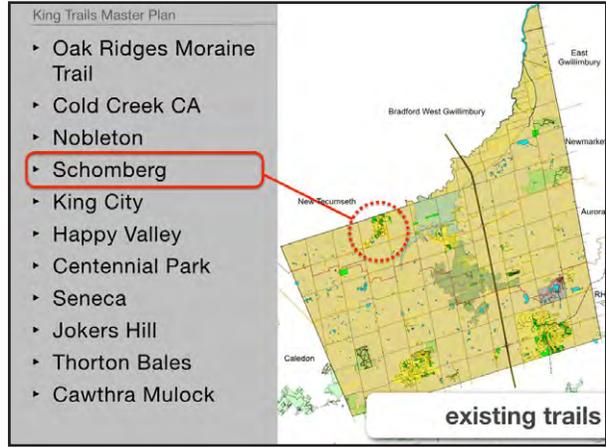
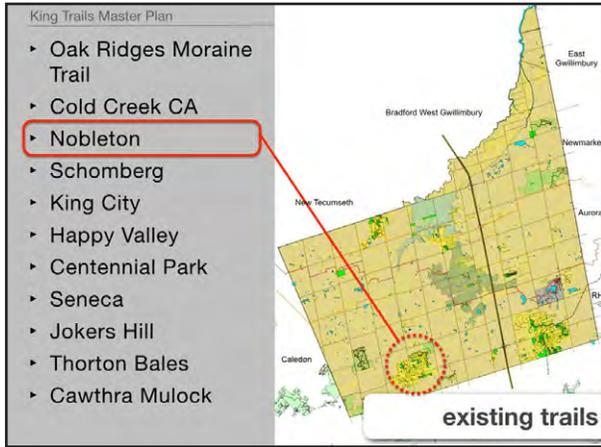


Figure 70: Presentation slides 13-18 from workshop #1

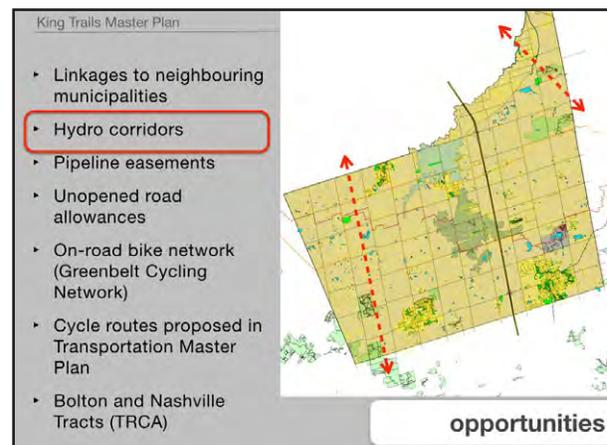
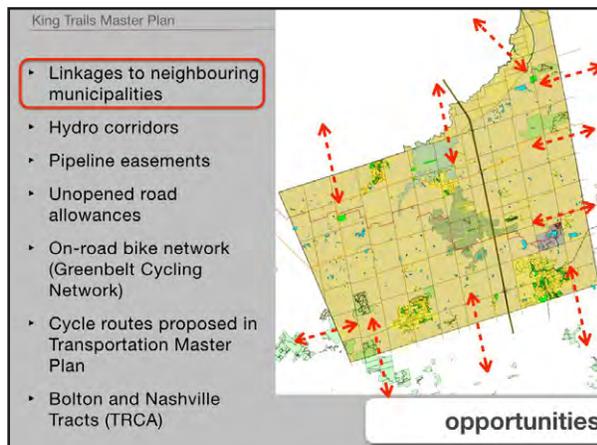
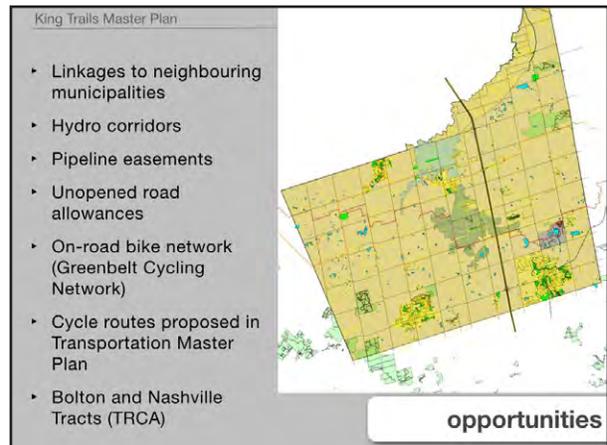
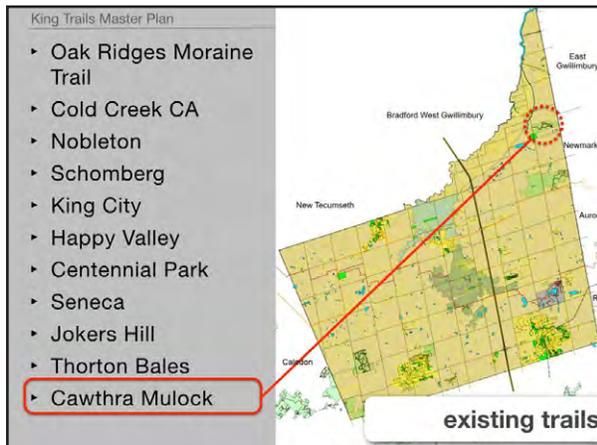
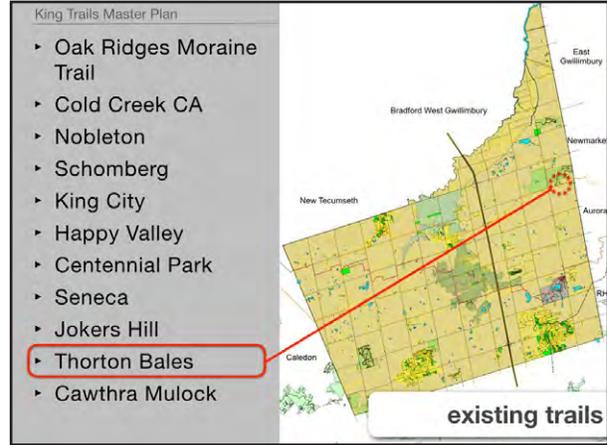
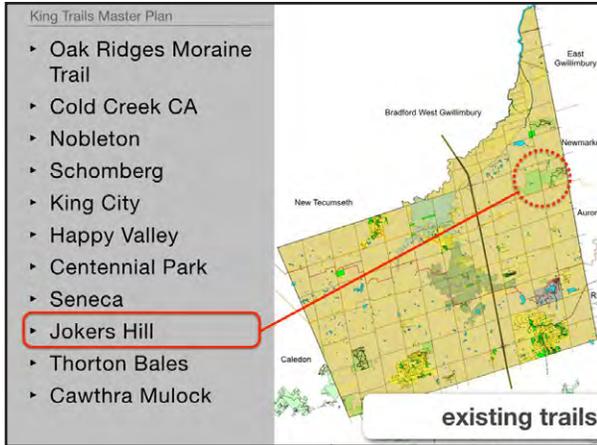
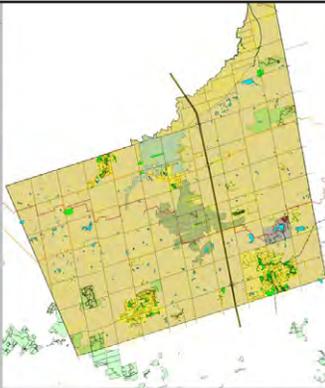


Figure 71: Presentation slides 19-24 from workshop #1

King Trails Master Plan

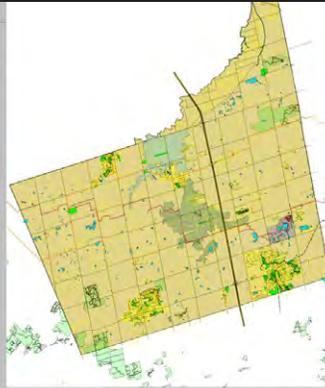
- Linkages to neighbouring municipalities
- Hydro corridors
- Pipeline easements
- Unopened road allowances
- On-road bike network (Greenbelt Cycling Network)
- Cycle routes proposed in Transportation Master Plan
- Bolton and Nashville Tracts (TRCA)



opportunities

King Trails Master Plan

- Linkages to neighbouring municipalities
- Hydro corridors
- Pipeline easements
- Unopened road allowances
- On-road bike network (Greenbelt Cycling Network)
- Cycle routes proposed in Transportation Master Plan
- Bolton and Nashville Tracts (TRCA)



opportunities

King Trails Master Plan

- Linkages to neighbouring municipalities
- Hydro corridors
- Pipeline easements
- Unopened road allowances
- On-road bike network (Greenbelt Cycling Network)
- Cycle routes proposed in Transportation Master Plan
- Bolton and Nashville Tracts (TRCA)



opportunities

King Trails Master Plan

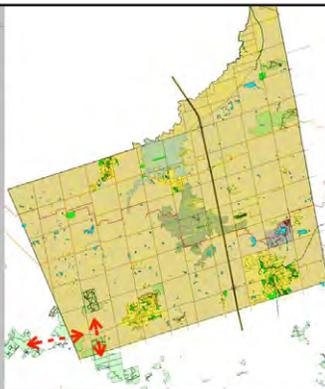
- Linkages to neighbouring municipalities
- Hydro corridors
- Pipeline easements
- Unopened road allowances
- On-road bike network (Greenbelt Cycling Network)
- Cycle routes proposed in Transportation Master Plan
- Bolton and Nashville Tracts (TRCA)



opportunities

King Trails Master Plan

- Linkages to neighbouring municipalities
- Hydro corridors
- Pipeline easements
- Unopened road allowances
- On-road bike network (Greenbelt Cycling Network)
- Cycle routes proposed in Transportation Master Plan
- Bolton and Nashville Tracts (TRCA)



opportunities

King Trails Master Plan

- Linkages/ownership off-road connections
- Signage and wayfiniding
- Parking
- Litter and dog waste Management
- Trail maintenance
- Accommodating different user groups (hikers, cyclists and equestrian)



challenges

Figure 72: Presentation slides 25-30 from workshop #1

King Trails Master Plan

- ▶ Improved access/trail heads;
- ▶ Signage and wayfinding;
- ▶ Formalize popular informal trail routes;
- ▶ Bridges over watercourses;
- ▶ Link trails via on or off road routes
- ▶ Maintenance (trail clearing, garbage collection, etc..)
- ▶ Marketing and promotion (for residents and tourism)



improvements

wayfinding + interpretive signage



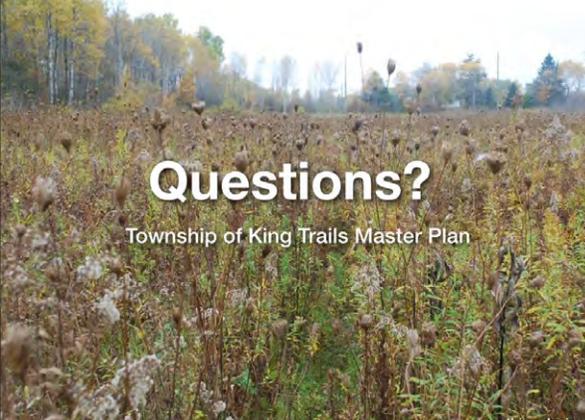
improvements

King Trails Master Plan

wayfinding + interpretive signage



improvements



Questions?
Township of King Trails Master Plan

thinc design



We want your Input

- What are we missing?
- What should we consider?
- Who should we talk to?

thinc design

King Trails Master Plan

1. Which trails do you use?
2. How do you use the trails? (hike, bike, horseback, etc..)
3. How often do you use the trails? (daily, weekly, monthly)
4. Where do you access the trails?
5. What improvements would you like to see?
6. Other comments?



questions

Figure 73: Presentation slides 31-36 from workshop #1



Purpose

- Route Planning
- Trail Standards
- Phasing and Implementation Priorities
- Budgets



King Trails Master Plan

Process (to date)

- Background Review
- Trail Assessment
- Public meeting
- Online Survey
- Stakeholder Interviews



King Trails Master Plan

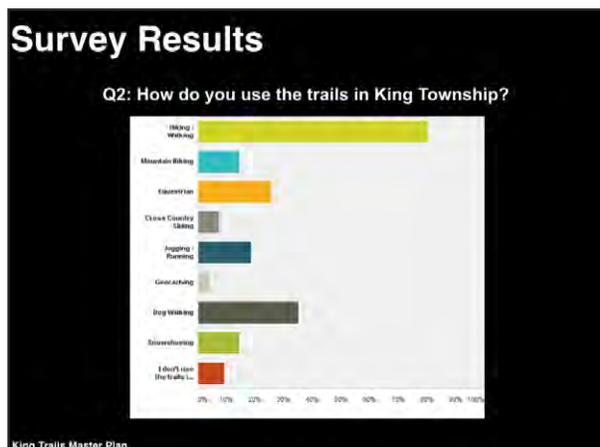
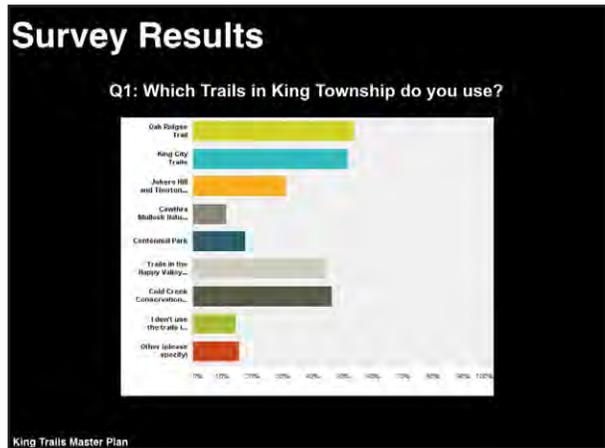
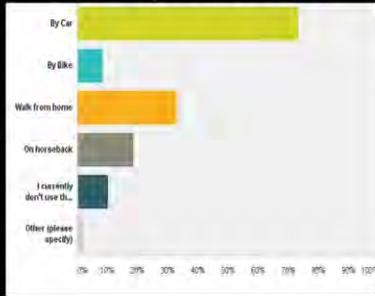


Figure 74: Presentation slides 1-6 from March 9th Council Presentation

Survey Results

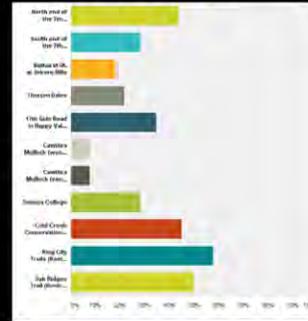
Q4: How do you access the trails?



King Trails Master Plan

Survey Results

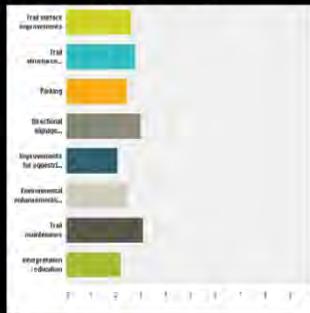
Q5: Where do you access the trails from?



King Trails Master Plan

Survey Results

Q6: Please indicate the importance of the following trail improvements?



King Trails Master Plan

Stakeholders Consulted

- Nature Conservancy Canada
- King City Trails Committee
- Cold Creek Conservation Authority
- Saddleback Farm
- King Trail Riders
- King Equestrian Voice
- Koffler Scientific Reserve
- Ontario Trails Council
- Toronto and Region Conservation Authority;
- Lake Simcoe and Region Conservation Authority;
- York Region; and,
- Oak Ridges Trail Association.

King Trails Master Plan

Trail Assessment

- GPS Mapping
- Currently over 108 km of trail in King
- Various ownership (public, private and NGOs)
- Look for opportunities to enhance existing trail network



King Trails Master Plan

Existing Trails

- Oak Ridges Moraine Trail
- Cold Creek CA
- Nobleton
- Schomberg
- King City
- Happy Valley
- Centennial Park
- Seneca
- Jokers Hill
- Thornton Bales
- Cawthra Mulock
- Greenbelt Cycling Route



King Trails Master Plan

Figure 75: Presentation slides 7-12 from March 9th Council Presentation

Opportunities

- Links to adjacent municipalities
- Other trail projects (TRCA)
- Future development
- Unopened road allowances and hydro corridors



King Trails Master Plan

Recommendations

- Existing Trails
- New Trails
- Trail Heads
- Signage and Wayfinding
- Operations and Maintenance
- Marketing and Promotions



King Trails Master Plan

Recommendations

- Existing Trails (20)
 - Routine Inspections and Maintenance
 - Trail improvements at key locations
 - Formalize trails for equestrian use



King Trails Master Plan

Recommendations

- New Trails (21)
 - Linkages
 - Connecting Communities
 - Tie into the larger regional trail network



King Trails Master Plan

Recommendations

- Trail Heads (17)
 - Primary
 - Secondary
 - Others



King Trails Master Plan

Recommendations

- Signage and Wayfinding (7)
 - Trail Heads
 - Mapping
 - Information
 - Trail Markers
 - Interpretation
 - Highway Directional Signage



King Trails Master Plan

Figure 76: Presentation slides 13-18 from March 9th Council Presentation

Recommendations

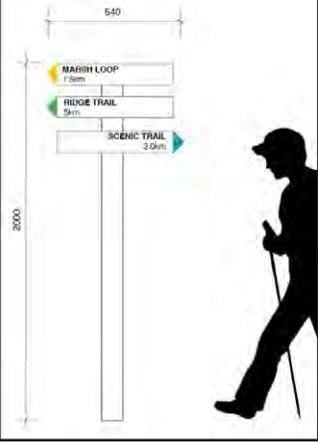
- Signage and Wayfinding (7)
 - Trail Heads
 - Mapping
 - Information
 - Trail Markers
 - Interpretation
 - Highway Directional Signage



King Trails Master Plan

Recommendations

- Signage and Wayfinding (7)
 - Trail Heads
 - Mapping
 - Information
 - Trail Markers
 - Interpretation
 - Highway Directional Signage



King Trails Master Plan

Recommendations

- Signage and Wayfinding (7)
 - Trail Heads
 - Mapping
 - Information
 - Trail Markers
 - Interpretation
 - Highway Directional Signage



King Trails Master Plan

Recommendations

- Signage and Wayfinding (7)
 - Trail Heads
 - Mapping
 - Information
 - Trail Markers
 - Interpretation
 - Highway Directional Signage



King Trails Master Plan

Recommendations

- Signage and Wayfinding (7)
 - Trail Heads
 - Mapping
 - Information
 - Trail Markers
 - Interpretation
 - Highway Directional Signage



King Trails Master Plan

Recommendations

- Operations and Maintenance (8)
 - Establish a trails working group committee
 - Trail audits and staff training
 - Garbage Collection (Jokers Hill)
 - Begin land access process for future trails



King Trails Master Plan

Figure 77: Presentation slides 19-24 from March 9th Council Presentation

Recommendations

- Marketing and Promotion
 - Trails Network Map
 - Trail Events
 - Website
 - Social Media



King Trails Master Plan

Implementation

- Short Term (1-5 years)
- Medium Term (5-10 Years)
- Long Term (10+ Years)



King Trails Master Plan

Implementation

- Short Term (1-5 years)
 - Operations and Maintenance
 - Signage Strategy
 - Marketing and Promotions
 - Repairs to existing trails
 - Make new trail connections within urban areas



King Trails Master Plan

Implementation

- Medium Term (5-10 years)
 - Trail connections between communities inside King



King Trails Master Plan

Implementation

- Long Term (10+ years)
 - New trails to link King's trail network to trails outside of King



King Trails Master Plan



Figure 78: Presentation slides 25-30 from March 9th Council Presentation



Overview

Township of King Trails Master Plan

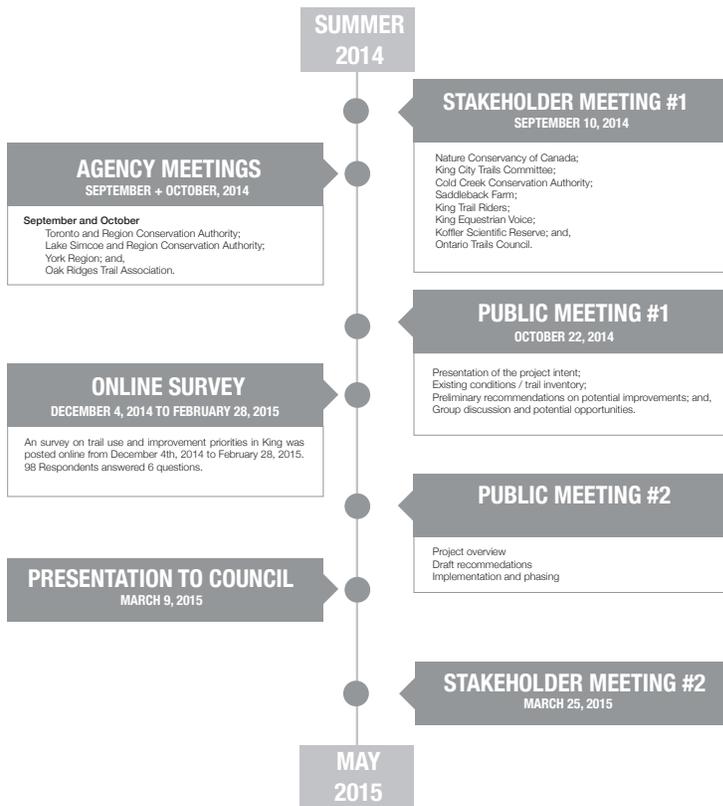
April 14, 2015



Study Purpose

The goal of the Trails Master Plan is to create a document that addresses route planning; trail standards and the development of a prioritization and phasing strategy.

Process to date:



Recommendations:



IMPROVEMENTS TO EXISTING TRAILS



NEW TRAILS AND TRAILHEADS



SIGNAGE AND WAYFINDING



OPERATIONS AND MAINTENANCE

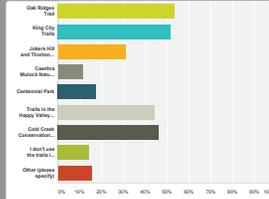


MARKETING AND PROMOTIONS

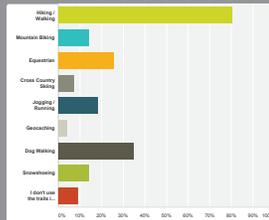
Online Survey Results

6 Questions / 98 Respondents

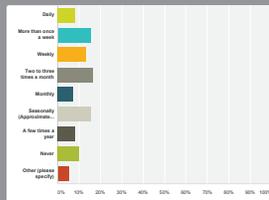
Q1: Which trails in King do you use?



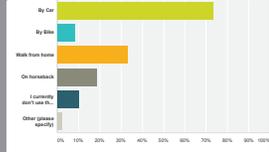
Q2: How do you use the trails?



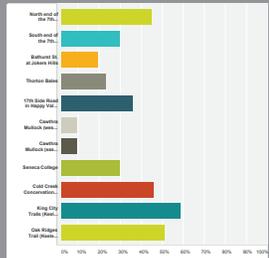
Q3: How often do you use the trails?



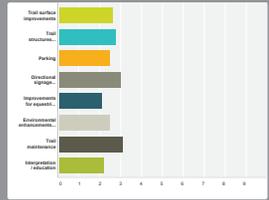
Q4: How do you access the trails?



Q5: Where do you access the trails from?



Q6: Please indicate the importance of the following trail improvements



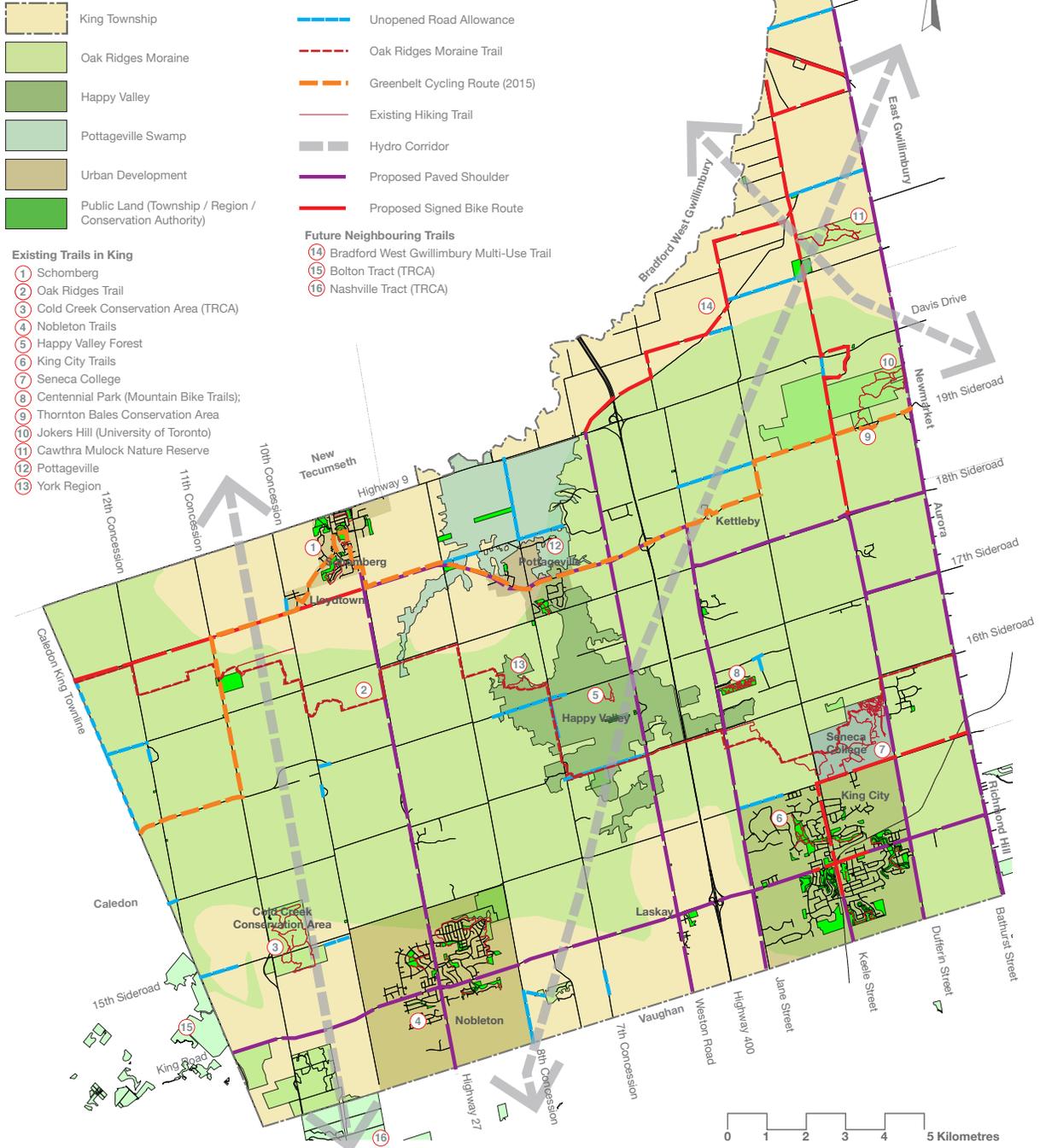
Panel 1 of 3

Figure 79: Presentation panel from workshop #2

Township of King Trails Master Plan

Existing Conditions

April 14, 2015



Panel 2 of 4

Figure 80: Presentation panel from workshop #2

Township of King Trails Master Plan

Proposed Trail Improvements

April 14, 2015

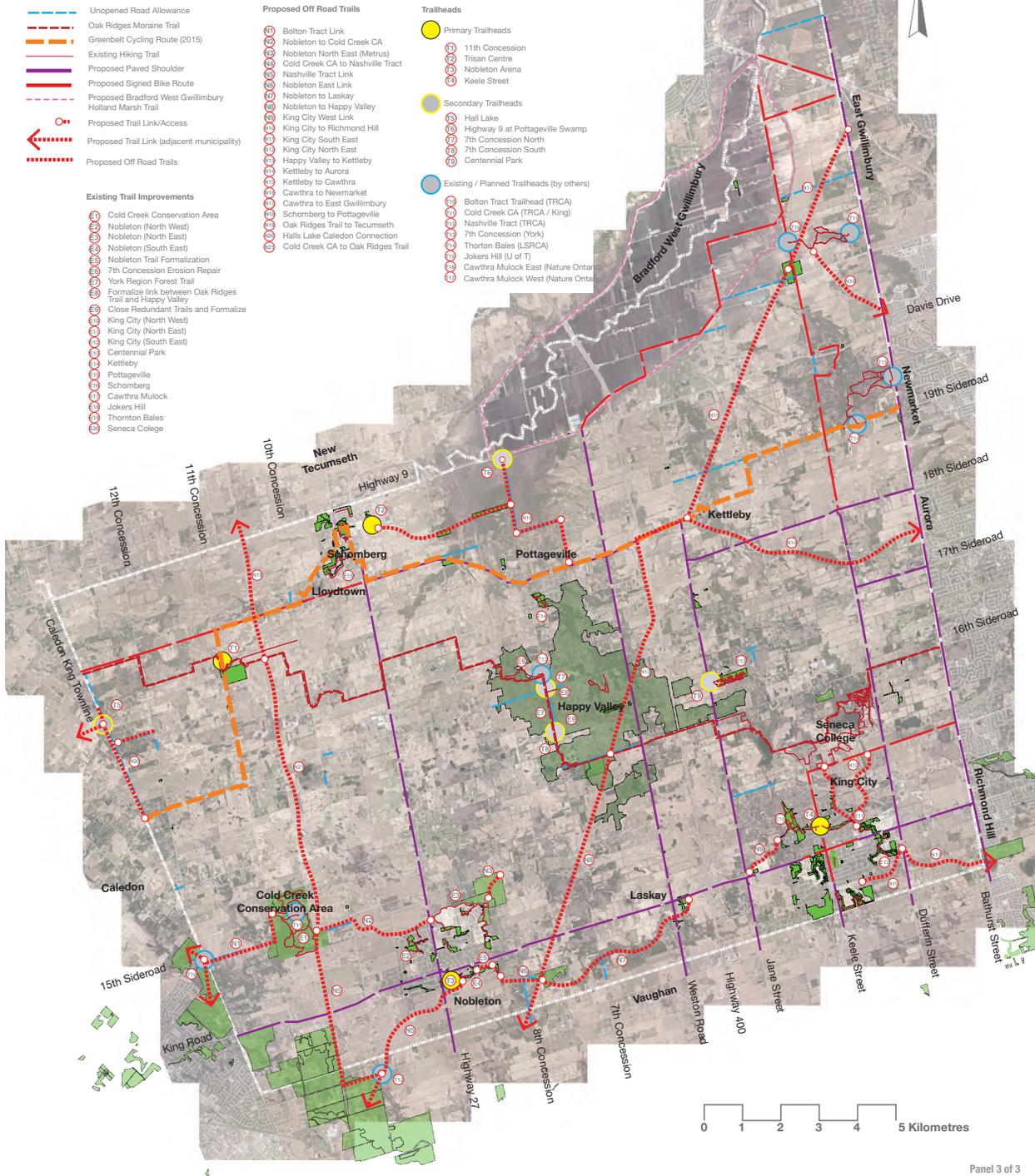


Figure 81: Presentation panel from workshop #2



Purpose

- Route Planning
- Trail Standards
- Phasing and Implementation Priorities
- Budgets

King Trails Master Plan

Process (to date)

- Background Review
- Trail Assessment
- Public meeting
- Online Survey
- Stakeholder Interviews
- Presentation to Council March 9th

King Trails Master Plan

Survey Results

Q1: Which Trails in King Township do you use?

Trail Name	Usage Percentage
Oak Ridge Trail	~85%
King City Trails	~75%
Jokers Hill and Tenth...	~45%
Crested Hill...	~15%
Continental Park	~15%
Trails in the Happy Valley...	~15%
Cold Creek Conservati...	~15%
I don't use the trails...	~10%
Other (please specify)	~10%

King Trails Master Plan

Survey Results

Q2: How do you use the trails in King Township?

Activity	Usage Percentage
Hiking/Walking	~85%
Mountain Biking	~15%
Equestrian	~15%
Cross Country Skiing	~10%
Jogging/Running	~10%
Goatpacking	~5%
Dog Walking	~10%
Bicycling	~10%
I don't use the trails...	~10%

King Trails Master Plan

Survey Results

Q3: Roughly how often do you use the trails in King Township?

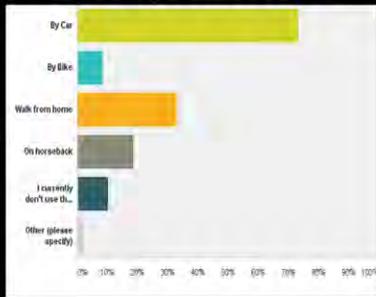
Frequency	Usage Percentage
Daily	~15%
More than once a week	~15%
Weekly	~15%
Two or three times a month	~15%
Monthly	~10%
Seasonally (Approximate...)	~10%
A few times a year	~10%
Never	~10%
Other (please specify)	~10%

King Trails Master Plan

Figure 82: Presentation slides 1-6 from Workshop #2

Survey Results

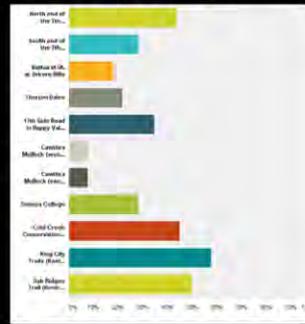
Q4: How do you access the trails?



King Trails Master Plan

Survey Results

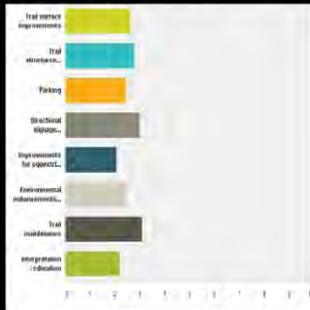
Q5: Where do you access the trails from?



King Trails Master Plan

Survey Results

Q6: Please indicate the importance of the following trail improvements?



King Trails Master Plan

Stakeholders Consulted

- ▶ Nature Conservancy Canada
- ▶ Toronto and Region Conservation Authority;
- ▶ King City Trails Committee
- ▶ Lake Simcoe and Region Conservation Authority;
- ▶ Cold Creek Conservation Authority
- ▶ York Region; and,
- ▶ Saddleback Farm
- ▶ Oak Ridges Trail Association.
- ▶ King Trail Riders
- ▶ King Equestrian Voice
- ▶ Koffler Scientific Reserve
- ▶ Ontario Trails Council

King Trails Master Plan

Trail Assessment

- ▶ GPS Mapping
- ▶ Currently over 108 km of trail in King
- ▶ Various ownership (public, private and NGOs)
- ▶ Look for opportunities to enhance existing trail network



King Trails Master Plan

Existing Trails

- ▶ Oak Ridges Moraine Trail
- ▶ Cold Creek CA
- ▶ Nobleton
- ▶ Schomberg
- ▶ King City
- ▶ Happy Valley
- ▶ Centennial Park
- ▶ Seneca
- ▶ Jokers Hill
- ▶ Thornton Bales
- ▶ Cawthra Mullock
- ▶ Greenbelt Cycling Route



King Trails Master Plan

Figure 83: Presentation slides 7-12 from Workshop #2

Opportunities

- Links to adjacent municipalities
- Other trail projects (TRCA)
- Future development
- Unopened road allowances and hydro corridors



King Trails Master Plan

Recommendations

- Existing Trails
- New Trails
- Trail Heads
- Signage and Wayfinding
- Operations and Maintenance
- Marketing and Promotions



King Trails Master Plan

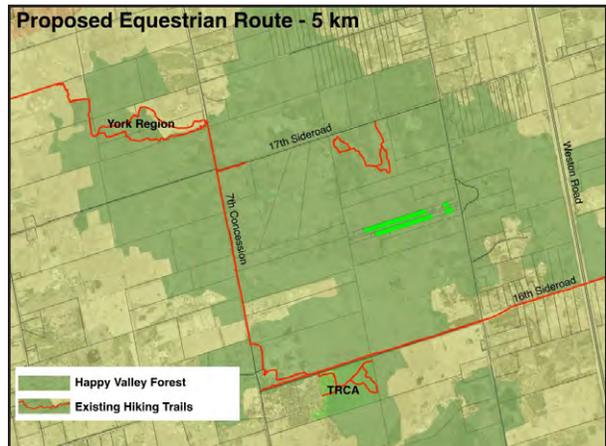
Recommendations

- Existing Trails (20)
- Routine Inspections and Maintenance
- Trail improvements at key locations
- Formalize equestrian route

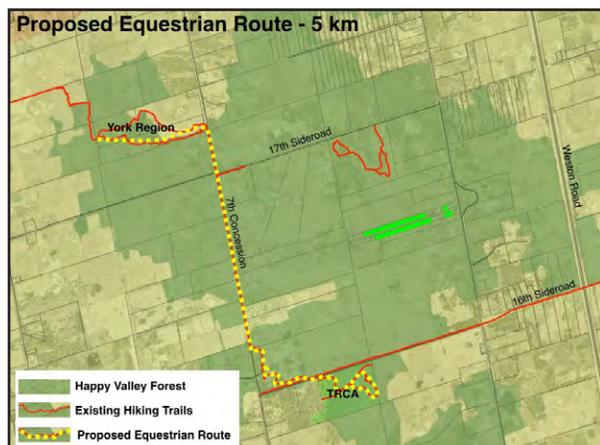


King Trails Master Plan

Proposed Equestrian Route - 5 km



Proposed Equestrian Route - 5 km



Proposed Equestrian Route - 5 km

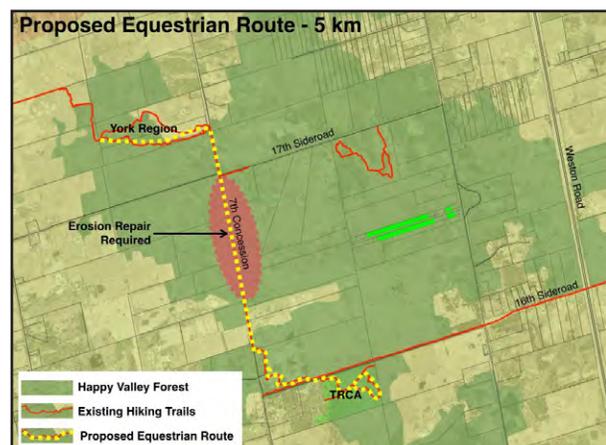


Figure 84: Presentation slides 13-18 from Workshop #2

Recommendations

- New Trails (21)
- Linkages
- Connecting Communities
- Tie into the larger regional trail network



King Trails Master Plan

New Trails



King Trails Master Plan

New Trails



King Trails Master Plan

Recommendations

- Trail Heads (17)
- Primary
- Secondary
- Others



King Trails Master Plan

Recommendations

- Trail Heads (17)
- Primary
- Secondary
- Others



King Trails Master Plan

Recommendations

- Signage and Wayfinding (7)
- Trail Heads
- Mapping
- Information
- Trail Markers
- Interpretation
- Highway Directional Signage



King Trails Master Plan

Figure 85: Presentation slides 19-24 from Workshop #2

Recommendations

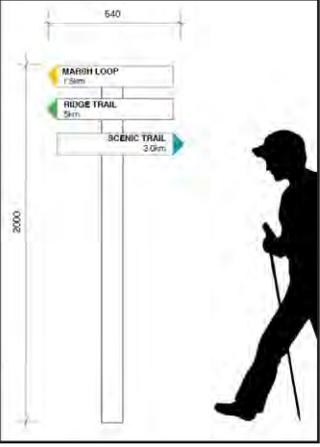
- Signage and Wayfinding (7)
 - Trail Heads
 - Mapping
 - Information
 - Trail Markers
 - Interpretation
 - Highway Directional Signage



King Trails Master Plan

Recommendations

- Signage and Wayfinding (7)
 - Trail Heads
 - Mapping
 - Information
 - Trail Markers
 - Interpretation
 - Highway Directional Signage



King Trails Master Plan

Recommendations

- Signage and Wayfinding (7)
 - Trail Heads
 - Mapping
 - Information
 - Trail Markers
 - Interpretation
 - Highway Directional Signage



King Trails Master Plan

Recommendations

- Signage and Wayfinding (7)
 - Trail Heads
 - Mapping
 - Information
 - Trail Markers
 - Interpretation
 - Highway Directional Signage



King Trails Master Plan

Recommendations

- Signage and Wayfinding (7)
 - Trail Heads
 - Mapping
 - Information
 - Trail Markers
 - Interpretation
 - Highway Directional Signage



King Trails Master Plan

Recommendations

- Operations and Maintenance (8)
 - Establish a trails working group committee
 - Trail audits and staff training
 - Garbage Collection (Jokers Hill)
 - Begin land access process for future trails



King Trails Master Plan

Figure 86: Presentation slides 25-30 from Workshop #2

Implementation

- Medium Term (5-10 years)
- Trail connections between communities inside King



King Trails Master Plan

Implementation

- Long Term (10+ years)
- Make longer connections
- New trails to link King's trail network to trails outside of King



King Trails Master Plan

Next Steps

- Stakeholder Input
 - Public (tonight)
 - Agencies (ongoing)
 - Staff (ongoing)
- Refine recommendations and finalize plan (May 2015)



King Trails Master Plan

Discussion Points

- Existing Trails
- New Trails
- Trail Heads
- Signage and Wayfinding
- Operations and Maintenance
- Marketing and Promotions



King Trails Master Plan

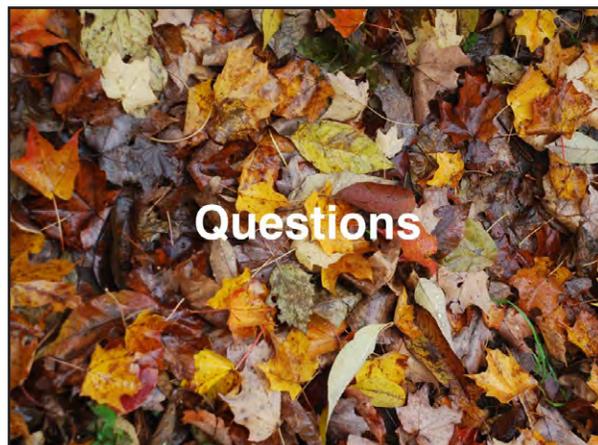


Figure 88: Presentation slides 37-41 from Workshop #2

Appendix B: Trail Master Plan

-  Unopened Road Allowance
-  Oak Ridges Moraine Trail
-  Greenbelt Cycling Route (2015)
-  Existing Hiking Trail
-  Proposed Paved Shoulder
-  Proposed Signed Bike Route
-  Proposed Bradford West Gwillimbury Holland Marsh Trail
-  Proposed Trail Link/Access
-  Proposed Trail Link (adjacent municipality)
-  Proposed Off-Road Trails

Existing Trail Improvements

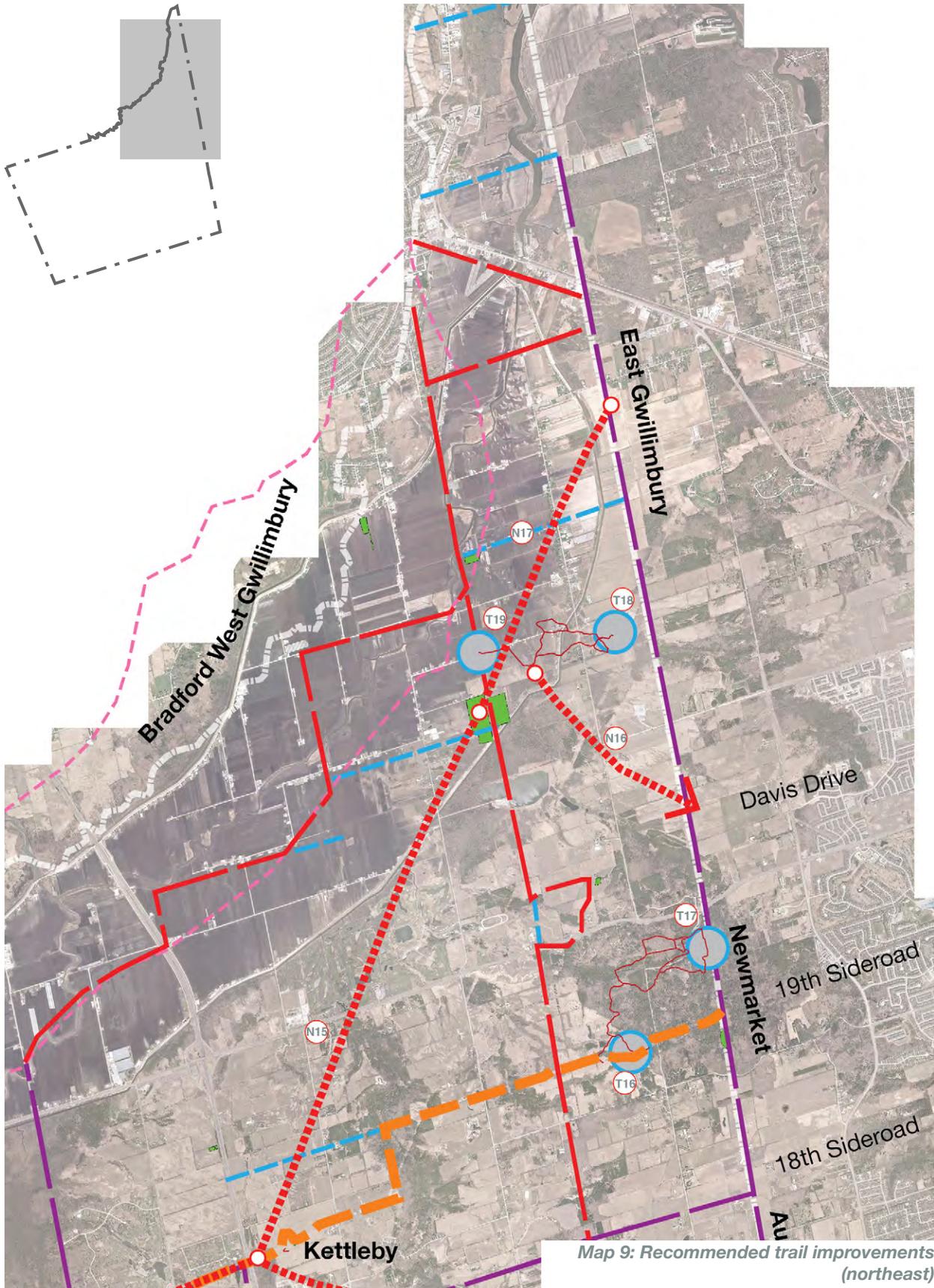
-  E1 Cold Creek Conservation Area
-  E2 Nobleton (Northwest)
-  E3 Nobleton (Northeast)
-  E4 Nobleton (Southeast)
-  E5 Nobleton Trail Formalization
-  E6 7th Concession Erosion Repair
-  E7 York Region Forest Trail
-  E8 Formalize link between Oak Ridges Trail and Happy Valley
-  E9 Close Redundant Trails and Formalize
-  E10 King City (Northwest)
-  E11 King City (Northeast)
-  E12 King City (Southeast)
-  E13 Centennial Park
-  E14 Kettleby
-  E15 Pottageville
-  E16 Schomberg
-  E17 Cawthra Mulock
-  E18 Koffler Scientific Reserve (Jokers Hill)
-  E19 Thornton Bales
-  E20 Seneca College

Proposed Off-Road Trails

-  N1 Bolton Tract Link
-  N2 Nobleton to Cold Creek CA
-  N3 Nobleton North East (Metrus)
-  N4 Cold Creek CA to Nashville Tract
-  N5 Nashville Tract Link
-  N6 Nobleton East Link
-  N7 Nobleton to Laskay
-  N8 Nobleton to Happy Valley
-  N9 King City West Link
-  N10 King City to Richmond Hill
-  N11 King City South East
-  N12 King City North East
-  N13 Happy Valley to Kettleby
-  N14 Kettleby to Aurora
-  N15 Kettleby to Cawthra
-  N16 Cawthra to Newmarket
-  N17 Cawthra to East Gwillimbury
-  N18 Schomberg to Pottageville
-  N19 Oak Ridges Trail to Highway 9
-  N20 Halls Lake Caledon Connection
-  N21 Cold Creek CA to Oak Ridges Trail
-  N22 Equestrian Link
-  N23 Greenbelt Trail to Oak Ridges Trail

Trailheads

-  Primary Trailheads
 -  T1 11th Concession
 -  T2 Trisan Centre
 -  T3 Nobleton Arena
 -  T4 King City Arena
-  Secondary Trailheads
 -  T5 Hall Lake
 -  T6 Highway 9 at Pottageville Swamp
 -  T7 7th Concession North
 -  T8 7th Concession South
 -  T9 Centennial Park
 -  T10 Oak Ridges Trail at Keele
 -  T11 Oak Ridges Trail at Dufferin
-  Existing / Planned Trailheads (by others)
 -  T12 Bolton Tract Trailhead (TRCA)
 -  T13 Cold Creek CA (TRCA / King)
 -  T14 Nashville Tract (TRCA)
 -  T15 7th Concession (York)
 -  T16 Thornton Bales (LSRCA)
 -  T17 Koffler Scientific Reserve (U of T)
 -  T18 Cawthra Mulock East (Nature Ontario)
 -  T19 Cawthra Mulock West (Nature Ontario)



Map 9: Recommended trail improvements (northeast)

-  Unopened Road Allowance
-  Oak Ridges Moraine Trail
-  Greenbelt Cycling Route (2015)
-  Existing Hiking Trail
-  Proposed Paved Shoulder
-  Proposed Signed Bike Route
-  Proposed Bradford West Gwillimbury Holland Marsh Trail
-  Proposed Trail Link/Access
-  Proposed Trail Link (adjacent municipality)
-  Proposed Off-Road Trails

Existing Trail Improvements

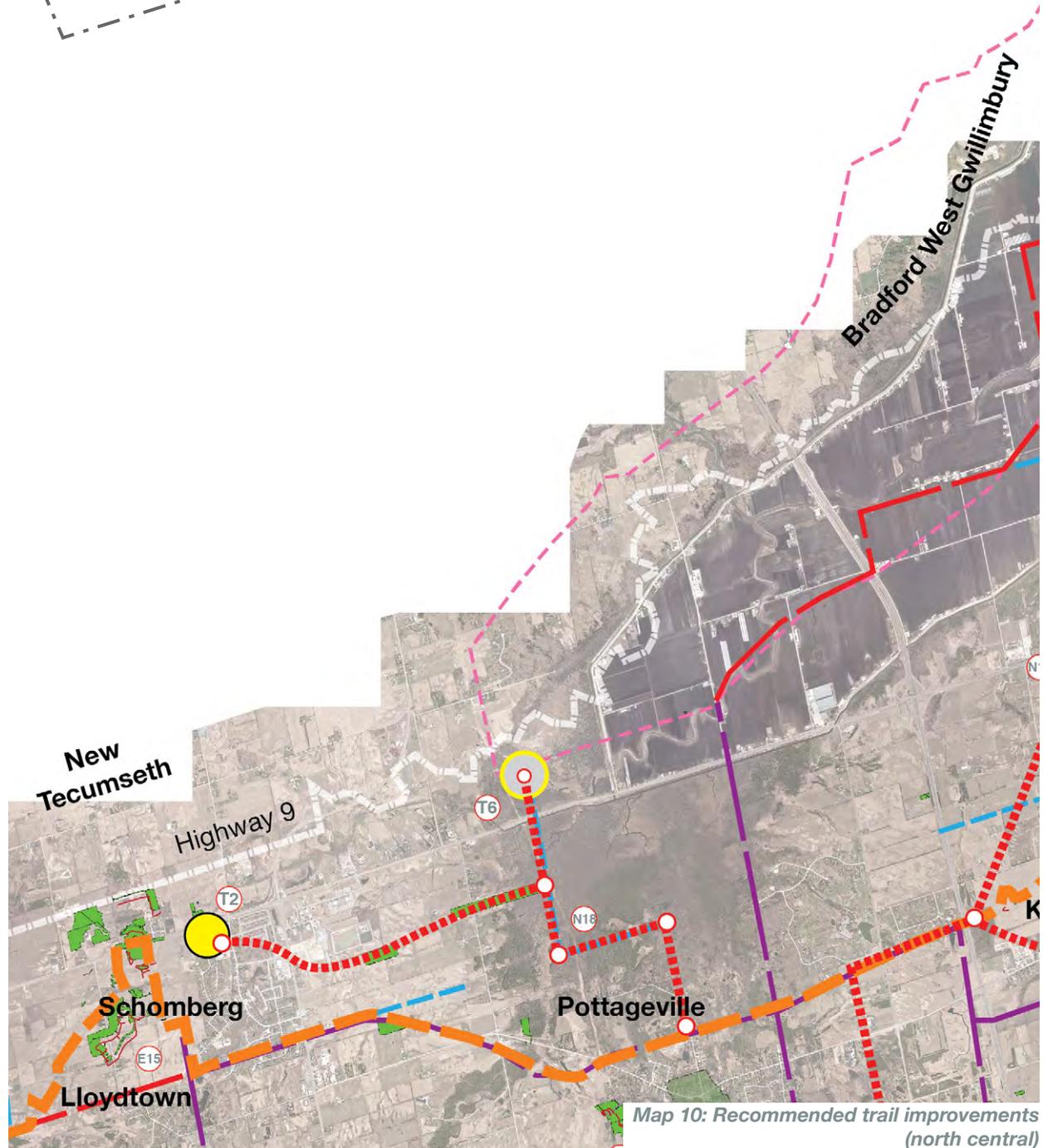
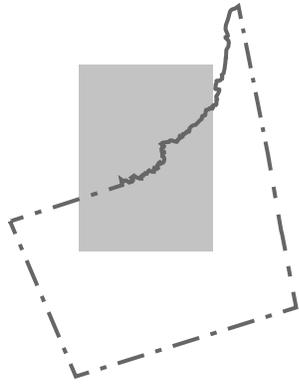
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-  E3 Nobleton (Northeast)
-  E4 Nobleton (Southeast)
-  E5 Nobleton Trail Formalization
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-  E7 York Region Forest Trail
-  E8 Formalize link between Oak Ridges Trail and Happy Valley
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-  E10 King City (Northwest)
-  E11 King City (Northeast)
-  E12 King City (Southeast)
-  E13 Centennial Park
-  E14 Kettleby
-  E15 Pottageville
-  E16 Schomberg
-  E17 Cawthra Mulock
-  E18 Koffler Scientific Reserve (Jokers Hill)
-  E19 Thornton Bales
-  E20 Seneca College

Proposed Off-Road Trails

-  N1 Bolton Tract Link
-  N2 Nobleton to Cold Creek CA
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-  N6 Nobleton East Link
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-  N9 King City West Link
-  N10 King City to Richmond Hill
-  N11 King City South East
-  N12 King City North East
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-  N14 Kettleby to Aurora
-  N15 Kettleby to Cawthra
-  N16 Cawthra to Newmarket
-  N17 Cawthra to East Gwillimbury
-  N18 Schomberg to Pottageville
-  N19 Oak Ridges Trail to Highway 9
-  N20 Halls Lake Caledon Connection
-  N21 Cold Creek CA to Oak Ridges Trail
-  N22 Equestrian Link
-  N23 Greenbelt Trail to Oak Ridges Trail

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-  Primary Trailheads
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-  Secondary Trailheads
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 -  T14 Nashville Tract (TRCA)
 -  T15 7th Concession (York)
 -  T16 Thornton Bales (LSRCA)
 -  T17 Koffler Scientific Reserve (U of T)
 -  T18 Cawthra Mulock East (Nature Ontario)
 -  T19 Cawthra Mulock West (Nature Ontario)



Map 10: Recommended trail improvements (north central)

-  Unopened Road Allowance
-  Oak Ridges Moraine Trail
-  Greenbelt Cycling Route (2015)
-  Existing Hiking Trail
-  Proposed Paved Shoulder
-  Proposed Signed Bike Route
-  Proposed Bradford West Gwillimbury Holland Marsh Trail
-  Proposed Trail Link/Access
-  Proposed Trail Link (adjacent municipality)
-  Proposed Off-Road Trails

Existing Trail Improvements

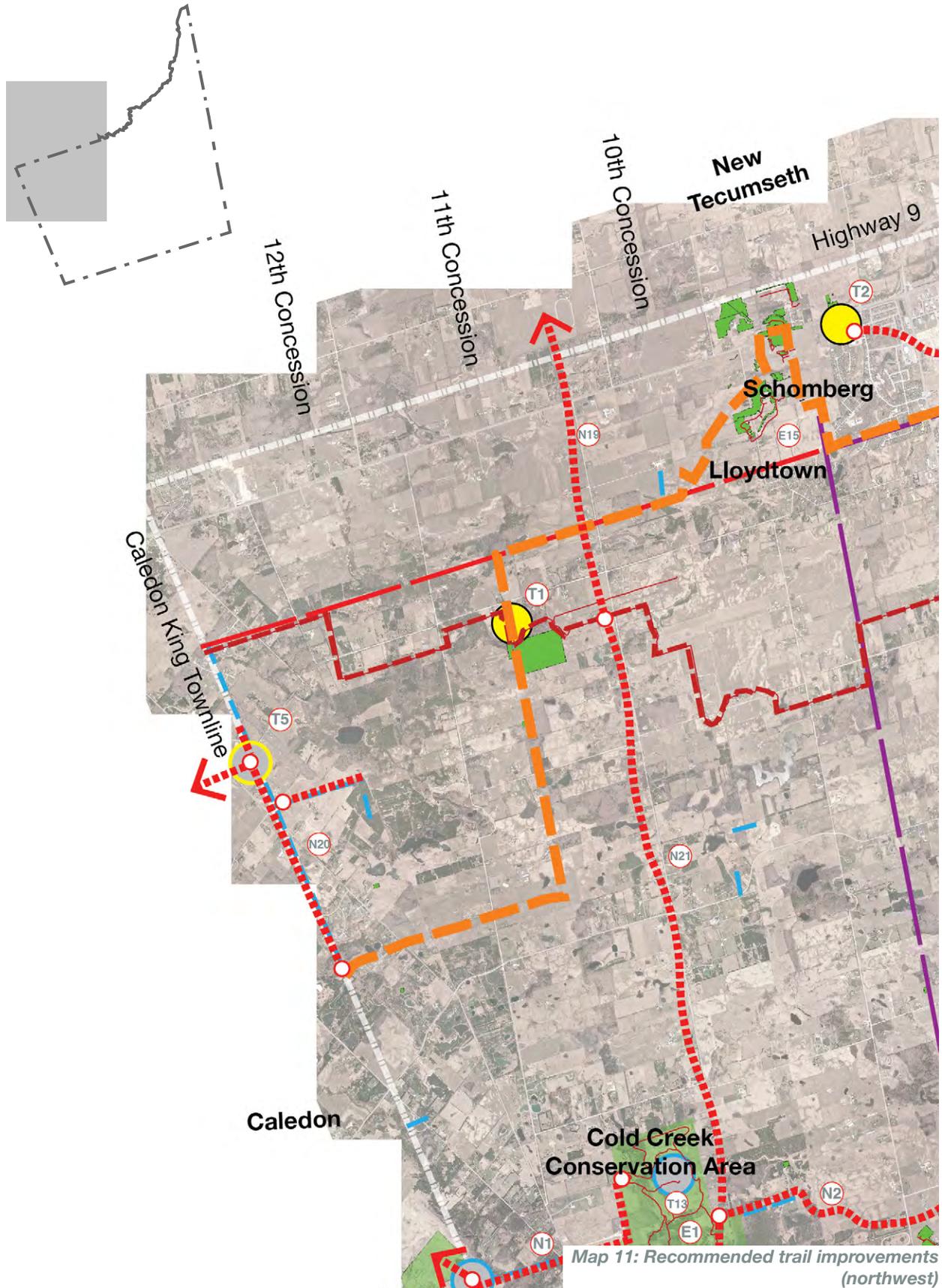
-  E1 Cold Creek Conservation Area
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-  E11 King City (Northeast)
-  E12 King City (Southeast)
-  E13 Centennial Park
-  E14 Kettleby
-  E15 Pottageville
-  E16 Schomberg
-  E17 Cawthra Mulock
-  E18 Koffler Scientific Reserve (Jokers Hill)
-  E19 Thornton Bales
-  E20 Seneca College

Proposed Off-Road Trails

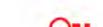
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 -  T9 Centennial Park
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 -  T11 Oak Ridges Trail at Dufferin
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 -  T17 Koffler Scientific Reserve (U of T)
 -  T18 Cawthra Mulock East (Nature Ontario)
 -  T19 Cawthra Mulock West (Nature Ontario)



Map 11: Recommended trail improvements (northwest)

-  Unopened Road Allowance
-  Oak Ridges Moraine Trail
-  Greenbelt Cycling Route (2015)
-  Existing Hiking Trail
-  Proposed Paved Shoulder
-  Proposed Signed Bike Route
-  Proposed Bradford West Gwillimbury Holland Marsh Trail
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-  Proposed Trail Link (adjacent municipality)
-  Proposed Off-Road Trails

Existing Trail Improvements

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Trailheads

 Primary Trailheads

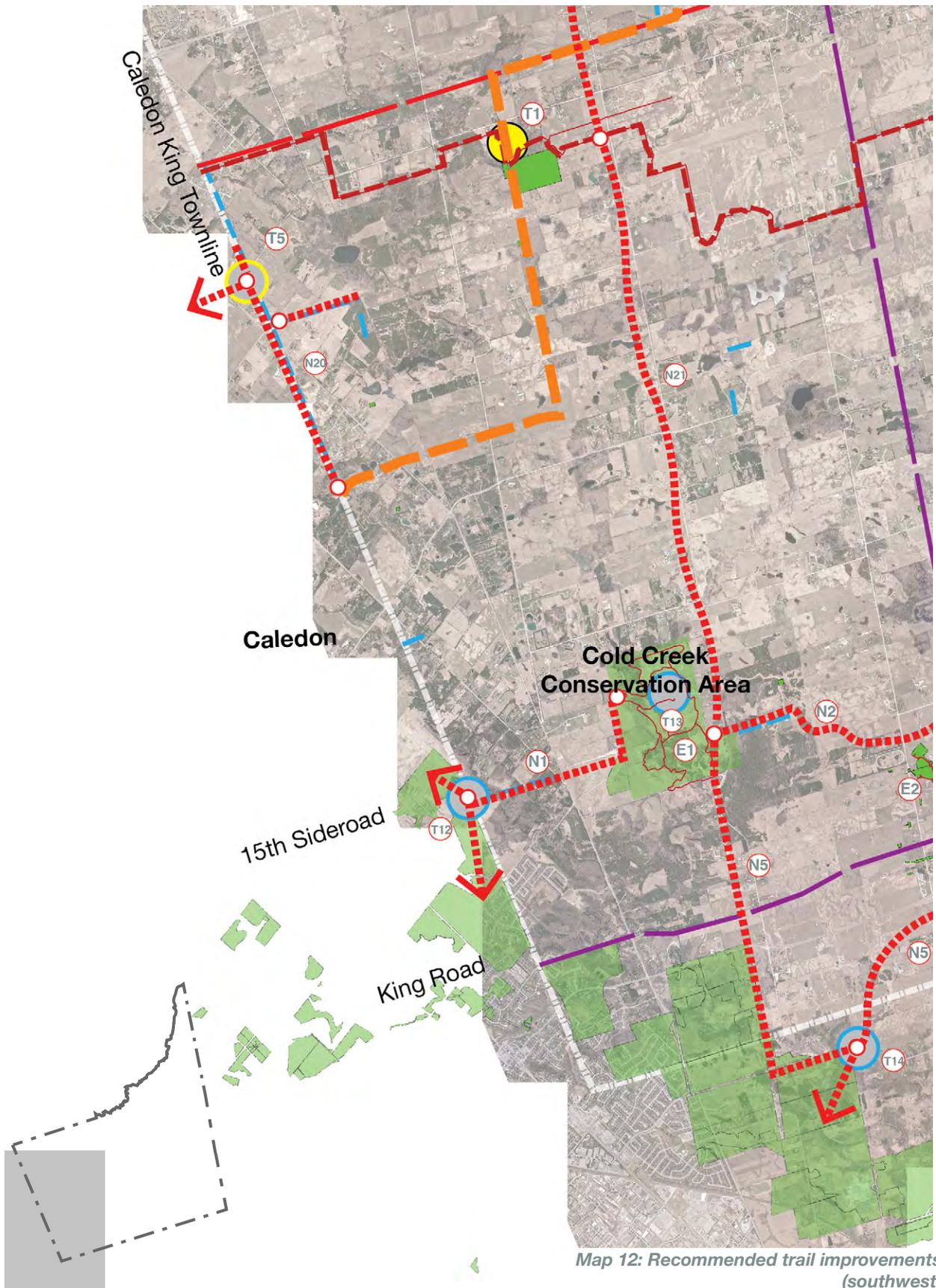
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 Secondary Trailheads

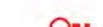
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-  T18 Cawthra Mulock East (Nature Ontario)
-  T19 Cawthra Mulock West (Nature Ontario)



Map 12: Recommended trail improvements (southwest)

-  Unopened Road Allowance
-  Oak Ridges Moraine Trail
-  Greenbelt Cycling Route (2015)
-  Existing Hiking Trail
-  Proposed Paved Shoulder
-  Proposed Signed Bike Route
-  Proposed Bradford West Gwillimbury Holland Marsh Trail
-  Proposed Trail Link/Access
-  Proposed Trail Link (adjacent municipality)
-  Proposed Off-Road Trails

Existing Trail Improvements

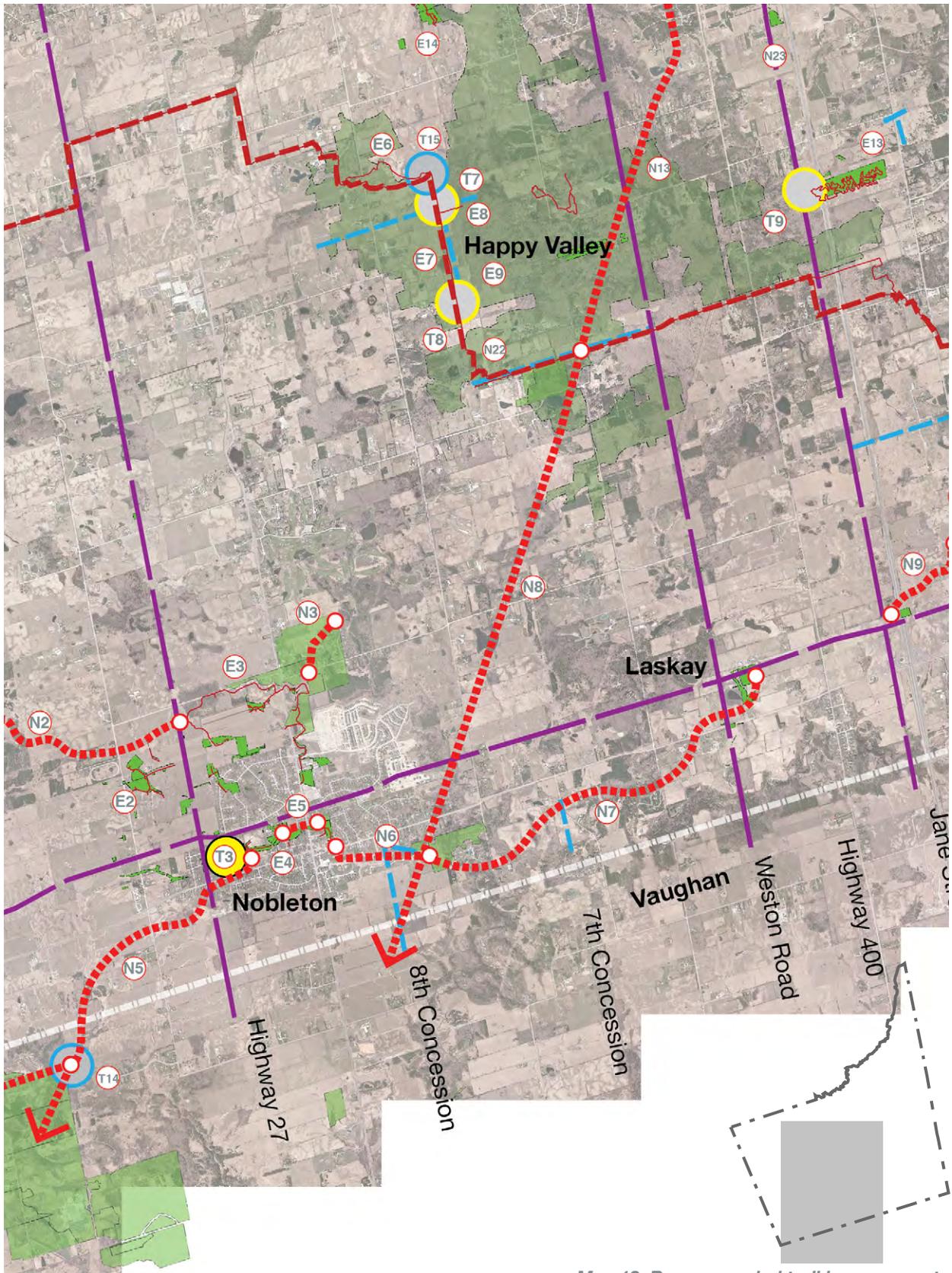
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 -  T14 Nashville Tract (TRCA)
 -  T15 7th Concession (York)
 -  T16 Thornton Bales (LSRCA)
 -  T17 Koffler Scientific Reserve (U of T)
 -  T18 Cawthra Mulock East (Nature Ontario)
 -  T19 Cawthra Mulock West (Nature Ontario)



Map 13: Recommended trail improvements (south central)

-  Unopened Road Allowance
-  Oak Ridges Moraine Trail
-  Greenbelt Cycling Route (2015)
-  Existing Hiking Trail
-  Proposed Paved Shoulder
-  Proposed Signed Bike Route
-  Proposed Bradford West Gwillimbury Holland Marsh Trail
-  Proposed Trail Link/Access
-  Proposed Trail Link (adjacent municipality)
-  Proposed Off-Road Trails

Existing Trail Improvements

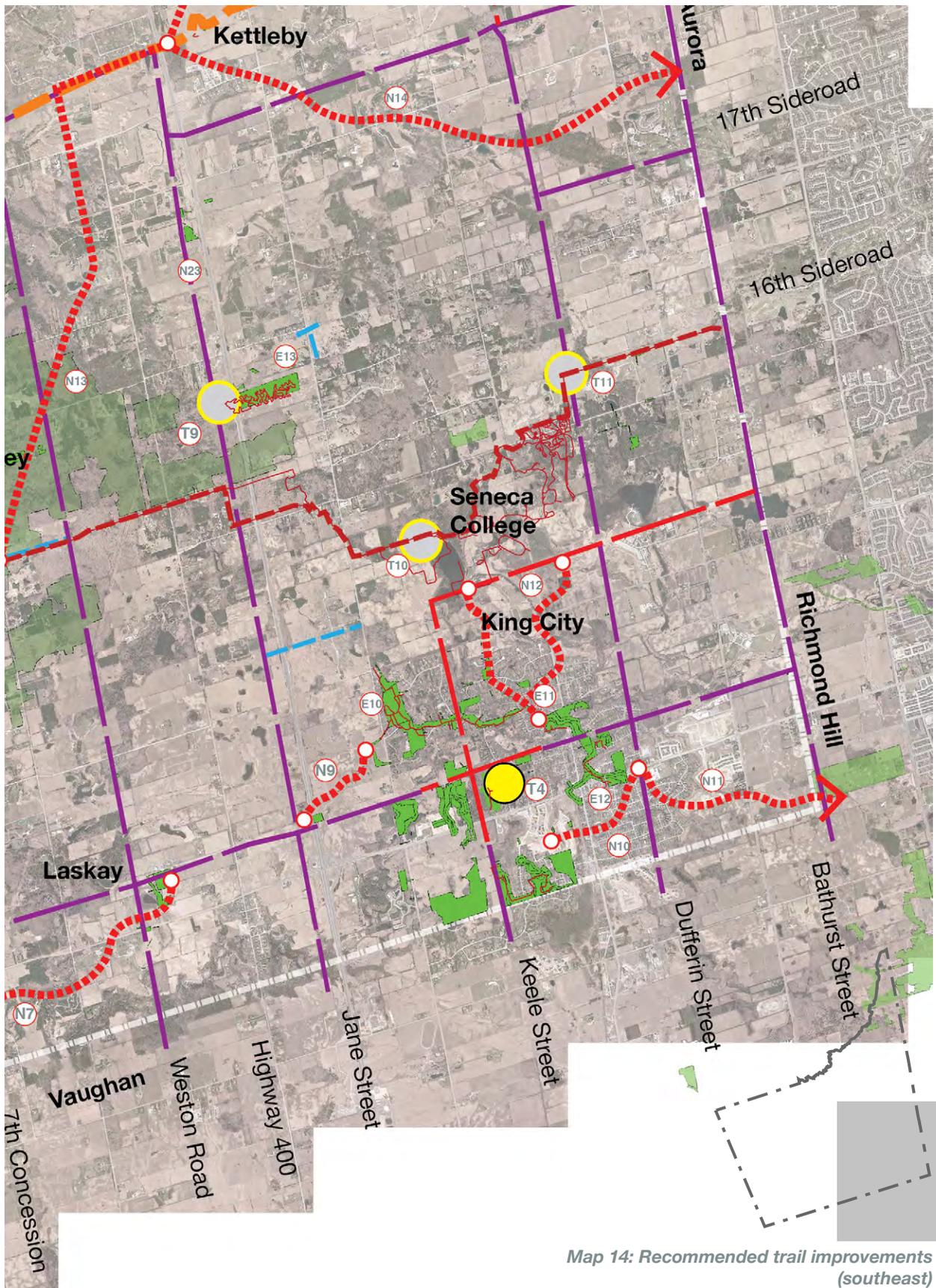
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-  E3 Nobleton (Northeast)
-  E4 Nobleton (Southeast)
-  E5 Nobleton Trail Formalization
-  E6 7th Concession Erosion Repair
-  E7 York Region Forest Trail
-  E8 Formalize link between Oak Ridges Trail and Happy Valley
-  E9 Close Redundant Trails and Formalize
-  E10 King City (Northwest)
-  E11 King City (Northeast)
-  E12 King City (Southeast)
-  E13 Centennial Park
-  E14 Kettleby
-  E15 Pottageville
-  E16 Schomberg
-  E17 Cawthra Mulock
-  E18 Koffler Scientific Reserve (Jokers Hill)
-  E19 Thornton Bales
-  E20 Seneca College

Proposed Off-Road Trails

-  N1 Bolton Tract Link
-  N2 Nobleton to Cold Creek CA
-  N3 Nobleton North East (Metrus)
-  N4 Cold Creek CA to Nashville Tract
-  N5 Nashville Tract Link
-  N6 Nobleton East Link
-  N7 Nobleton to Laskay
-  N8 Nobleton to Happy Valley
-  N9 King City West Link
-  N10 King City to Richmond Hill
-  N11 King City South East
-  N12 King City North East
-  N13 Happy Valley to Kettleby
-  N14 Kettleby to Aurora
-  N15 Kettleby to Cawthra
-  N16 Cawthra to Newmarket
-  N17 Cawthra to East Gwillimbury
-  N18 Schomberg to Pottageville
-  N19 Oak Ridges Trail to Highway 9
-  N20 Halls Lake Caledon Connection
-  N21 Cold Creek CA to Oak Ridges Trail
-  N22 Equestrian Link
-  N23 Greenbelt Trail to Oak Ridges Trail

Trailheads

-  Primary Trailheads
 -  T1 11th Concession
 -  T2 Trisan Centre
 -  T3 Nobleton Arena
 -  T4 King City Arena
-  Secondary Trailheads
 -  T5 Hall Lake
 -  T6 Highway 9 at Pottageville Swamp
 -  T7 7th Concession North
 -  T8 7th Concession South
 -  T9 Centennial Park
 -  T10 Oak Ridges Trail at Keele
 -  T11 Oak Ridges Trail at Dufferin
-  Existing / Planned Trailheads (by others)
 -  T12 Bolton Tract Trailhead (TRCA)
 -  T13 Cold Creek CA (TRCA / King)
 -  T14 Nashville Tract (TRCA)
 -  T15 7th Concession (York)
 -  T16 Thornton Bales (LSRCA)
 -  T17 Koffler Scientific Reserve (U of T)
 -  T18 Cawthra Mulock East (Nature Ontario)
 -  T19 Cawthra Mulock West (Nature Ontario)



Map 14: Recommended trail improvements (southeast)

