ERIN ROTARY RIVERWALK TRAIL FEASIBILITY STUDY Town of Erin

Full Report available at the Town Office

Executive Summary

As the local Rotary Club was looking for a "Legacy Project" within the Town of Erin, discussions with Economic Development and the Mayor determined a "riverwalk" trailway project may be worth investigating. Unanimously voted in by the Rotarians as something they could "fundraise" given their desire for a phased "outdoor activities" project; the "Riverwalk Trail" idea was considered as an ideal project that could use the services of the Rotary, be enjoyed by the community, and also, inadvertently help the local business environment given recent trends for trail desirability and the opportune connections to other regional trail networks that exist within the Town of Erin.

With support of the steering committee, Stempski Kelly Associates Inc. (SKA) involvement commenced on the Erin Rotary Riverwalk Trail Feasibility Study in April 2016 lasting for approximately 5 months. The work included extensive background and field research, facilitating "hands on" community consultation and a detailed review of several documents including the Town of Erin Economic Development Action Plan (2015), Wellington County Active Transportation Plan (2014), CVC Watershed Planning and Regulation Policies (2010), The Official Plan of the Town of Erin, etc. Ultimately, the main outcome of the study is that a Rotary Riverwalk Trail for Erin and Hillburgh is indeed feasible and supports the potential for future trailway development.

The project's goal involved assessing the feasibility of trail access and alignment opportunities along the West Credit River and pond environments in Erin Village and Hillsburgh; the intent being the creation of desirable connections and attractive, functional spaces for residents, guests and visitors. The project also supports the Town's economic development initiatives and informs considerations towards future downtown 'staging and connection' enhancements, encourages business economic activity through heightened awareness and enjoyment of the Town's urban centres' through connections to the Elora Cataract Trail (ECT), and to provide flexible/ alternative options for aesthetic improvements and functional connections/spaces along the Town's waterscapes.





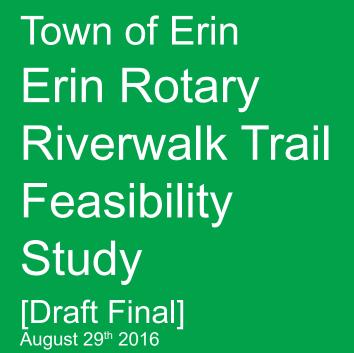
Executive Summary continued...

The SKA facilitated community engagement included stakeholder interviews, community workshops (Hillsburgh and Erin), and a community open house for The Town of Erin, resulting in a desire for a suggested trail alignment with defined access locations serving pedestrian and cycling users. At this time, it is anticipated that Erin Village could pursue a three circuit network encompassing 5.6km of trails; similarly a 2.5km trail network could be pursued for Hillsburgh. Essentially there was broad acceptance that there was a need for both public (Town/County) and private property considerations and partnerships into the trailways' development. While there were varied opinions on which trail segments to pursue, amongst the circuits, all study participants agree that connections between the watercourse, adjacent natural areas, adjacent existing trail networks and adjacent residential areas remain central to the downtown cores. The sessions also determined that the community generally felt that both Erin Village and Hillsburgh had good things to offer and were satisfied that a communal, connective network of trailway along the watercourses could be achieved over time.

The Erin Rotary Riverwalk Trail Feasibility is essentially a four part study document encompassing trailway feasibility related content, expressed through 1) Foundations, 2) Identifying Preliminary Directions, 3) Recommended Trail Alignment, and 4) Making the Case, as well as Rotary Rivewalk Trail 'demonstration sketches' suggesting what the trail could be like and associated implementation budget estimates. The document is set in a "user-friendly" format to aid in informing the Erin community in understanding trail development and implementation.

SKA's on-site visual assessment of the project areas confirmed much of the community's feelings noted above. Further, it was determined that important focal points or points of interest along the watercourses are not currently being capitalized on, identified or highlighted (views, key landmarks or connections). Generally there is a lack of appreciation distinguishing the "water" as a district or special area for the Town of Erin. Several other general observations included a lack of awareness by ECT users of the Town's urban centres, unappealing parking and back-of-building lot environments fronting the river/ponds, and an strong barrier effect, albeit inconsistent "street wall" hiding the river in Erin Village. While several volunteer initiatives have provided targeted improvements along the river (e.g. Riverside Park), these are too few to be considered a system or network.







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Town of Erin "Erin Rotary Riverwalk Trail Feasibility Study"

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Stempski Kelly Associates Inc.

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This chapter provides an introduction to the feasibility study process for the Rotary Riverwalk Trail and deals with Erin's history, context, trends and assessment of related systems in the Erin and Hillsburgh Study Areas.

1.1 Role and Scope of the Rotary Riverwalk Trail Feasibility Study



The Town of Erin Rotary Riverwalk Trail Feasibility Study is the vehicle for assessing the implementation of a potential riverwalk trail development and for considering, maintaining and preserving existing facilities, infrastructure and environments. It also provides a means for articulating a common purpose within the Town addressing the possibility of a 'river walk' trail, and for communicating this to its stakeholders, regulatory agencies and the community at large. While this study addresses many aspects of the Town, it has a specific focus on the environment in which a riverwalk trail may be situated.

As 'trail use' grows in popularity, communities realize the economic potentials trails can bring to an area since they can act, when positioned well, as tourist attractions/ destinations. Trails provide opportunities for all businesses, from commercial recreation and restaurants, to shops and places of lodging, all of which contributes to the local economy. The economic benefits can continue to increase when trails are properly designed and managed as active transportation infrastructure when they form a network of connections between communities and a variety of attractions. When analyzing the positive impacts trails can bring to a community, they begin to be recognized as drivers of economic development.

Embracing Service Club support

As the local Rotary Club was looking for a "Legacy Project" within the Town of Erin, discussions with Economic Development and the Mayor determined a "riverwalk" trailway project may be worth investigating. Unanimously voted in by the Rotarians as something they could "fundraise" given their desire for a phased "outdoor activities" project; the "Riverwalk Trail" idea was considered as an ideal project that could use the services of the Rotary, be enjoyed by the community, and also, inadvertently help the local business environment given recent trends for trail desirability and the opportune connections to other regional trail networks that exist within the Town of Erin.

Rotary Riverwalk Trail Feasibility Study mandate

The Erin Rotary Riverwalk Trail Feasibility Study Steering Committee has a mandate to develop a feasibility plan for a trail system associated with respective water bodies for the Village of Erin and in Hillsburgh to be presented to the Town of Erin council in the summer 2016.

The whole is greater than the sum of its parts

Feasibility planning deals with individual projects, with linking Erin's landscapes and with the infrastructure of the Town. The Erin Rotary Riverwalk Trail Feasibility Study is aimed at ensuring that the trails' physical environment, both built and natural, operates within the limits of its natural and built systems, meets the needs and aspirations of its residents, its guests/users and the community around it, and enables the Town's trails-related goals and decisions to be realized.

The scope of the Feasibility Study will include all aspects of plausible trail routing, design and operation requirements including all recreational, environmental and cultural activities, degree of quality, parking and trail staging, user service space, capacity, and property and environmental issues.

The Study can respond to many horizons

A long range horizon suggests a future based on goals and growth expectations which can be articulated only in general terms. It can include established projects which are in the programming, design or implementation stages, and contemplated projects which reflect current and projected needs, but which have not as yet been defined or detailed. A long-range framework is firmly based on present realities, but extended far enough into the future to provide a comprehensive context for upcoming planning decisions. A feasibility study must respect that the initiative at hand might best fit into one of a short -, mid- or longer term horizon. The thrust of this study is to identify options for future Riverwalk trail projects and suggest measures for their projection beyond the 10 year period – a long term horizon. However, short- and mid-range horizons are also addressed too.



The Study directs communal action

The Erin Rotary Riverwalk Trail Feasibility Study directs action so that the physical environment suits the Town's present and future needs, meets municipal goals (economic development, recreation, civic, etc), and is a joy to be part of. The notion of its potential and content is a clear message that the trails' future direction matters.

The Study is a community study

The Town is a community of residents, their guests, its employers and employees. A committee process provides this community with the means to shape the Study. The trail can also be an asset that serves the Credit River, the Town, Wellington County, and adjacent Southern Ontario's communities. Both the Erin and Hillsburgh communities are essentially communities of buildings, landscapes and people that give The Town of Erin its sense of place. The Town of Erin Rotary Riverwalk Trail Feasibility Study responds to and affects (to differing degrees) each of these communities.

The Study interacts with other Town initiatives

The Trail Feasibility Study can be a significant piece of a planning process. Any planning for trail development should have three primary components – marketing and related needs planning, financial planning, and physical or development planning – which should be founded on the broad goals and objectives of the Town's mission – specifying the means whereby these identified goals and objectives are to be realized. While each component focuses on a different field, they are highly interdependent: the decisions of one exercise influence and/or respond to the conclusions of another as they are developed and implemented. The exceptional characteristic of the Trail Feasibility Study is that its subject – the riverwalk landscape – will usually outlive, yet need to inform and thus serve, a series of the Town's financial and marketing plans.

This study also considers the best of what the Town has done in the past. It responds to previous economic development plans, current permitting and approvals, recent resident and visitor surveys, and completed projects.

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The Study must work within fiscal realities

In order to be feasible and successfully implemented, the Riverwalk Trail Feasibility Study needs to consider current and fiscal realities. The Study may be a vision but is certainly not outlandish; it sets realistic policies that can be achieved over time through creative implementation practices and sound long-term planning.

The Riverwalk Trail Feasibility Study is strategic

The Trail Feasibility Study does not describe future trail landscapes and facilities in absolute detail; it is a set of considerations that defines intent, but not final form. These guide the trail's development to ensure that general objectives for the Town are met but are flexible enough to accommodate specific needs that may arise in the future.

Demonstrations (scenarios) included in this study illustrate several possible ways the implementation of a Riverwalk Trail might occur.

The Riverwalk Trail Feasibility Study reinforces the best and repairs the worst

The Feasibility Study identifies the parts of the potential riverwalk trail that can be successful and can make it a special place. Likewise, the Study identifies areas that detract from the potential riverwalk trail and may benefit from improvement or mere avoidance. The Study seeks to preserve and enhance the positive aspects and to consider the negative parts for Erin's Rotary Riverwalk Trail.

The Riverwalk Trail Feasibility Study responds to trends

The Feasibility Study responds to trends in trail-based recreation, as well as trail-based economic development, leisure and demographics. Such trends across the province and North America include a desire for home-based activities, casual participation, self-directed learning, recreation and leisure moving outdoors, environmental concerns, and an aging society. The Study seeks to reduce barriers and challenges arising from these trends and embrace opportunities for trail enthusiasts of all ages and abilities.

Study Process...

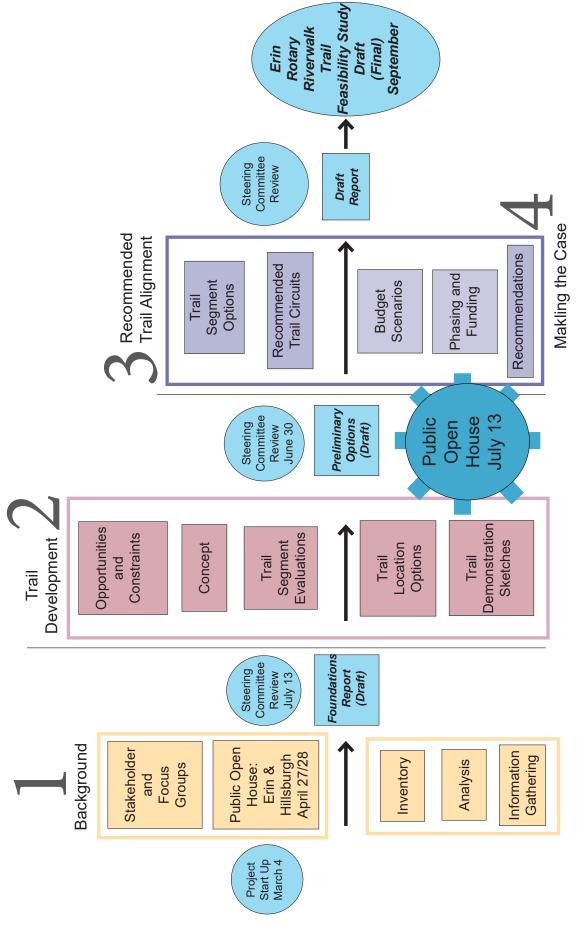


Figure 1: The Erin Rotary Riverwalk Trail Feasibility Study Process

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Physical Context

The Town of Erin is a beautiful rural community within the County of Wellington and is located approximately 80kms northwest of Toronto. Formed in 1998, the Town is comprised of the former Village and Township of Erin. The main urban centres include Erin and Hillsburgh with the addition of seven hamlets; Ballinafad, Brisbane, Cedar Valley, Crewson's Corners, Orton and Ospringe. It is 360 square kilometres and has a total population of 10,770 (2011). The Town boasts the characteristics of an ideal rural area; picturesque countryside, quality farmland, significant forest, river and wetland systems as well as enjoyable small town living. On the following page, a context map (Figure 2) has been provided, illustrating the location and relationship Hillsburgh and Erin share. All aerial imagery provided by Wellington County GIS.



Study Area

The Erin Rotary Riverwalk Trail Feasibility Plan study area focuses on two locations;

- The Village of Erin The Village of Hillsburgh

Each of the areas are outlined on the following page;



Figure 2: Context Map

8 Town of Erin The Village of Erin Ska

The study area in Erin, as provided by the Town, focuses on the lands adjacent to Stanley Park Ponds, the West Credit River and the Upper and Lower Mill Ponds near the downtown core.



Figure 3: Erin Context Map

The Village of Hillsburgh

The study area in Hillsburgh, as provided by the Town, focuses on the lands surrounding the Mill Pond.



Figure 4: Hillsburgh Context Map



1.2.1 History of Trail Development in Erin

1993 The Town provides support for the development of the Elora-Cataract Trailway which is a partnership between the Grand River Conservation Authority, Credit Valley Conservation and the Elora-Cataract Trailway Association. The Township of Erin is home to 18km of the 47km long trailway.

2004 The Town of Erin develops a new Official Plan which includes policies relating to a more sustainable transportation system and "encouraging the development of safe and efficient pathways and trails in Town which promote walking / biking and reduced dependency on motor vehicles."

2011 Marks the opening of the Mill History in Erin Village Walking Trail system located at Woollen Mill Lane developed by the Town of Erin Recreation and Culture Committee, and in association with WeCare of Credit Valley Conservation.

2015 Town of Erin 2015-2020 Corporate Strategic Plan: The plan reflects a commitment to protecting, maintaining and enhancing the natural environments within the Town of Erin. Balanced eco-tourism initiatives including the Trans Canada Trail and the Elora Cataract Trailway' were identified as part of that commitment.

2015: As a result of the action item identified in the 'Momentum: Town of Erin Economic Development Action Plan,' the Town of Erin applies for a grant to conduct a Feasibility Study for the Erin Riverwalk Trail. Support for the project is offered by the Erin Rotary Club, and the Study is named 'The Erin Rotary Riverwalk Trail Feasibility Study'.

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1.2.2

Trends Influencing Trail Development

Healthy Community Design Matters

In recent years, Canadians have continually become less and less physically active. Combined with rises in obesity rates, a major public health concern has arisen due to increases in heart disease, stroke and other chronic conditions, including cardiovascular disease, diabetes and various cancers. Physical activity not only helps combat these issues, but it also creates further positive health outcomes such as improved physical, mental and social health.

It has been demonstrated that community trail design that supports active transportation has resulted in a number of benefits for public health, the environment and can increase modes of transportation. These include, promoting physical activity, improved air quality, reducing contributions to climate change and even improving community livability.

According to Planning Healthy Communities Fact Sheet Series (2012), their key findings included:

- 69% of adults and 91% of children/youth are not getting the daily recommended levels of physical activity.
- 1 in 4 adults are considered obese, along with about 1 in 10 children/youth between the ages of 6 and 17.
- It is estimated that if all Canadians engaged in 60 minutes of physical activity per day, 33% of all deaths related to coronary heart disease, 25% of deaths related to stroke, 20% of deaths related to type 2 diabetes and 20% of deaths related to hypertension could be avoided.
- Studies from several Canadian cities and regions show that perceptions of safety and the aesthetic quality of a route play an important part in influencing people's decision to walk or bike, both for themselves and their children.
- Path connections, quality and scenery are all aspects identified as having a
 positive relationship with people's decisions to walk or bike.
- For many cyclists, the characteristics of the route were more important than those of the origin or destination of travel.
- A Canada-wide study found that generalized active transportation promotion strategies may be less effective than more unique initiatives targeting specific groups (e.g. older walkers/cyclists, youth, etc.)

Active Transportation

In Active Transportation in Canada -- A Resource and Planning Guide (2012), the benefits and rationale behind active transportation included:

Active Transportation: Any form of humanpowered transportation. The most popular forms of active transportation include cycling and walking. Public Health and Safety: As active transportation requires a more physical approach to transportation, there is a proven link to improved public health outcomes. Well-designed networks and purpose-built infrastructure also assist in improving pedestrian and cyclist safety and usability.

Environment and Sustainability: Active transportation has multiple environmental benefits. Being a self-propelled transportation method, it generates far less pollution in relation to emissions and consumption of fossil fuels.

Economic and Financial: The development and maintenance costs of active transportation infrastructure are much less in comparison to other modes of transportation, both overall and on a per-capita basis. Studies have also shown that active transportation infrastructure can have positive local economic development impacts.

Community and Quality of Life: Improved trail networks for pedestrians and cyclists can have many positive impacts on overall community and individual well-being, social cohesion, community identity and equality issues.

Transportation and Connections: A well-designed municipal active transportation network improves connections to and between community destinations, ultimately improving the broader transportation network.

Increasing Awareness of Active Outdoor Lifestyle Benefits

Active lifestyles can result in many benefits, one of the most important being health and well-being in individuals. Those with physical challenges are also finding it easier to participate in outdoors activities (e.g. trails) with the use of new and improving technologies. With the inclusion of all community members into the outdoor environment, communities are becoming more active and engaged, creating a significant positive influence on public health and wellness. Outdoor awareness also helps establish a greater understanding and appreciation for our environment, fostering increased stewardship.

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Changing Demographics

With an increase in the number of people using trails as a form of physical activity, the demand for more recreational trails has been growing. Trails located near urban centres and residential areas are the most well-received, enticing individuals to use them due to ease of access. This in turn increases individual and community health. Trails that cater to both long distances as well as day-use have been growing in demand as well.

Increasing Diversity of Users

The variety of activities that are occurring on trails in recent years has been one of the many contributors for the demand for more trails. Walking, hiking, cycling, mountain biking, horseback riding, snowmobiling, ATVing (all-terrain vehicle riding) are all activities that utilize trails.

With the inclusion of motorized recreationists (snowmobiles, ATVs, etc.), trail use dynamics and patterns change. With a number of user groups all vying for trail space and their own needs, conflicts can arise. When considering these issues along with increasing environmental concerns, an integrated approach to trail use and trail user groups must be coordinated in order to classify trails according to the desired experience. Collaboration between public, private, community and volunteer groups will help establish successful coordination of trail networks.

Increasing Transportation Role for Trails

With the increasing concern of climate change and individuals becoming more environmentally conscious, communities are seeking out greener alternatives to address these issues. Trails are an excellent example as they provide alternative transportation modes that are sustainable, economical, healthy and environmentally friendly.



1.2.3

Document Review and Assessment

The review of associated documents identifies desires, concerns and recommendations towards the drafting of this Feasibility Study. Several documents have been reviewed containing applicable information supporting the Town of Erin's *Erin Rotary Riverwalk Feasibility Study*, including:

Momentum: Town of Erin Economic Development Action Plan:

This 4-year road map is essentially an Action Plan designed to facilitate economic renewal with the Town of Erin. Seven goals identified in the report lead to a series of Actions for consideration and subsequent approval by Council. The Action Plan identified the importance and potential of a Riverwalk Trail to attract visitors to the community, to expand opportunities for commerce and to reinvigorate local interest in walking or riding the trail. Furthermore, the Riverwalk Trail was also supported by results from the Erin Equine Economic Development Report, 2013, which identified the need for horse trail development in Erin which would help to establish the Town of Erin as a premier destination for the Equine enthusiasts. The first Action item 5.1, (i) was to 'Make Application to Ontario Trillium to Undertake a Riverwalk Trail Feasibility Study.' Support for the initiative was provided by the Erin Rotary Club.

Town of Erin EQUINE ECONOMIC DEVELOPMENT REPORT

nomentum

Town of Erin

2015-2018

Economic Development Action Plan

ERIN

The Erin Equine Economic Development Report, 2013:

The Erin Equine Economic Development Report identified a desire to expand trail infrastructure to attract riders, and therefore support the local equine economy. This resulted in a key recommendation to expand trail infrastructure to attract riders and leverage nearby event facilities.

The Official Plan of The Town of Erin:

"The purpose of the Official Plan is to provide a municipal statement of intent on how future growth and development will be managed." (Town of Erin Official Plan). The Town of Erin Official Plan identifies a number of policies that support the development of safe pedestrian walking and cycling corridors within the Town of Erin (3.8.9.f). Walking and cycling trails are designated as permitted recreational uses under the Land Use Policy (4.12.3). The plan also identifies a number of policies directly related to the protection and respect of its natural water features and Greenland systems (3.1.1). The association between recreation, nature as an important community asset and relative jurisdictional conservation agencies is well documented within the plan. For example, any placement, movement or removal of fill shall not be permitted without the prior written approval of the applicable Conservation Authority. Consequently, any planning within lands governed under the jurisdiction of the Credit Valley Conservation Authority, shall be subject to review and approval by the CVC.

Development Charges By-Law:

This By-Law identifies 'Trails' as Outdoor Recreational Use and is listed under services that are 90% eligible.

Official Plan

An official plan is a statement of objectives and policies to guide decisions to planning and land use management within the area covered by the plan (usually an entire municipality or parts of regional districts).

Committee Involvement:

The Town has a few advisory committees that could provide input to the Erin Rotary Riverwalk Trail Feasibility Study in regards to their respective domains as advisory groups.

These committees are the:

- Erin Economic Development Committee (EEDC);
- Environment and Sustainable Advisory Committee (ESAC);
- Erin Heritage Committee (TEHC);
- Trail Advisory Committee (TAC).

The Town of Erin Zoning By-Laws

Passive recreation is defined within the Town of Erin's By-Laws as "the use of land and/or water for the purpose of passive leisure activity such as walking, hiking and cycling where buildings and structures are limited to those necessary to support the passive leisure activities. Passive recreation may also include a wildlife sanctuary, and a conservation area." As a specific use, Passive Recreation is allowed in lands zoned as Open Space Recreation (OS), Village Environmental Protection (EP1) Zone, and Rural Environmental Protection (EP2) Zone. The By-Laws also have guidelines to determine specific zone boundaries. Environmental Protection zones are generally noted as Core Greenland features. The By-Laws note that the Credit Valley Conservation Authority shall be consulted to more precisely determine zone boundaries during development applications.

Wellington County Official Plan:

Relative to the Town of Erin within the Wellington County Official Plan is the designation of both Greenlands and Core Greenlands. Development and site alteration within Provincially Significant Wetlands or in significant habitat of threatened or endangered species is subject to requirements and approvals guided by both provincial and federal agencies. In other Core Greenlands and Greenland zones, passive recreation is noted as a permitted use. (5.6.1 Permitted Uses)

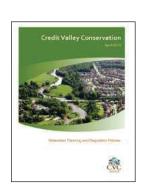
The Plan also identifies encouragement for the development of both pedestrian and cycling facilities and trails to support travel and recreation initiatives. (12.2, 12.3)

Wellington County Active Transportation Plan:

This planning document, completed in 2014, is a long-term strategy for the creation of pedestrian and cycling supportive environments within Wellington County. The vision statement, "Create and improve opportunities through the County for active recreation and active transportation", is directly supportive of the efforts to develop a Riverwalk Trail in the Town of Erin. The Wellington County Active Transportation Plan has been designed to be a living document that is flexible and capable of evolving over time. It is intended to maintain and enhance existing programs and infrastructure, while guiding the development and implementation of new active transportation facilities and programs.







Conservation Authorities Act

Ensures the conservation, restoration and responsible management of water, land and natural habitat through programs that balance human, environmental and economic needs.

Environmental Impact Statement (EIS)

Describes the positive and negative environmental affects of proposed developments and cites alternative actions.

Provincial Policy Statement

Provides policy direction on matters of provincial interest related to land use planning and development and promotes the provincial "policy-led" planning system. As a priority, The Plan identifies improved connections from Erin to the Elora Cataract Trail. Also identified are additional trail connections (multi-use trails, signed road routes and routes with sharrows) for both Erin and Hillsburgh that are located within the Riverwalk study area. The Plan offers a comprehensive collection of pertinent information in regards to the County's interest in Active Transportation throughout Wellington County. Of specific importance to this study will be the Trail Designer's Toolbox that offers development guidelines for both on and off-road multi-use trails.

CVC Guidelines and Policies:

A predominant part of the lands suited for the Erin Riverwalk Trail are governed by the Credit Valley Conservation Authority. The **CVC Policy and Guidelines** will be an important reference when considering trail alignment in regards to watershed planning and conservation (Watershed Planning and Regulation Policies).

General support for the Erin Rotary Riverwalk Trail can be found in Policy 7.2.9 which states:

"The CVC may permit interference or development associated with new passive or low intensity recreational uses within watercourses, wetlands, hazardous land and natural features and areas contributing to the conservation of land where the proposal is consistent with CVC standards, and it has been demonstrated that the interference is acceptable and, in the opinion of CVC, the control of flooding, erosion, dynamic beaches, pollution or the conservation of land will not be affected."

Of primary concern for the Feasibility Study will be trail allocation in designated wetland zones, and in or adjacent to flood plain areas. CVC provides specific guidelines pertaining to trail development which includes accommodation for boardwalks, watercourse crossings, fill placement and grading. Ongoing consultation with the CVC will be encouraged to ensure that the trail alignment will be supported. Further detailing and consultation with various associated professionals (geotechnical and structural engineering) will be required for detailed trail design. Ultimately, an application will need to be made to the CVC for final compliance for trail development.

For the purpose of this Feasibility Study, the following will need to be addressed for trail alignment:

- Slopes and slope stability
- Watercourse flood lines and elevations;
- Rare or sensitive species:
- Impact on private lands;
- Natural hazards and features;

"This document promotes a natural heritage systems approach to watershed planning for CVC's partnering agencies to build from; it provides guidance and direction for CVC staff when considering planning and development related matters; it provides a clear and consistent framework for applicants when preparing development proposals; and it clearly outlines CVC's policy framework for stakeholders and the general public who have an interest in protecting, restoring and enhancing the watersheds within CVC's jurisdiction."

Station Street Dam and Bridge Environmental Assessment

The Station Street Bridge and Dam in Hillsburgh is in need of upgrades to reduce the risk to traffic using the structure. Following a malfunction of an outlet pipe in the dam in 2011, the Town initiated a Municipal Class Environmental Assessment to review options and identify the preferred alternatives to address both the deterioration of the bridge and a permanent solution for the dam. The Class Environmental Assessment process includes: public and agency consultation; an evaluation of alternative solutions to address the problem; an assessment of potential environmental effects of the proposed improvements; and identification of reasonable measures to mitigate any potential adverse impacts.

The report is divided into two main sections:

<u>Natural Environment Report</u>: This report offers valuable insight into the natural conditions, features, wildlife, and fauna that surround the Hillsburgh Mill Pond. Various alternatives for reconstruction or rehabilitation of the bridge, and rehabilitation or removal of the dam are presented and evaluated including projected impacts to the natural conditions, wildlife, fauna and fisheries. From a natural heritage perspective, an alternative that includes the construction of an offline pond is the preferred treatment having the least negative impacts to the natural heritage features, and provides positive benefits to the natural environment in the long term. These options will have an impact on the pond's edge, and therefore will offer different opportunities for trail alignment.

<u>Cultural Heritage Evaluation and Heritage Impact Assessment:</u> The heritage significance of the bridge includes its artistic merit, historical and contextual value, location on the Hillsburgh Dam, its early construction date and associations with Gooderham and Worts as well as general historic settlement in the region. Various options are provided for bridge improvements, ranging from leaving it as is with minor improvements, to replacing the bridge altogether. In terms of providing improved pedestrian circulation and accommodating trail development, alignment with plans for future amendments to the bridge will be important to the success of the Riverwalk Trail.

The project is currently in its final stages, with comments from the public and agencies being reviewed, with a final preferred alternative being selected for implementation.

Ministry of Natural Resources and Forestry:

The Ministry of Natural Resources and Forestry protects Ontario's biodiversity while promoting economic opportunities in the resource sector and supporting outdoor recreation opportunities. Under the Endangered Species Act, the Ministry of Natural Resources can grant different types of permits or other authorizations for activities that would otherwise not be allowed, with conditions that are aimed at protecting and recovering species at risk. These authorizations are intended to ensure that Ontario's businesses and residents continue to prosper while protecting and recovering the province's at-risk animals and plants. In reference to the Erin Riverwalk Trail Feasibility Study, such permitting is inevitable and will be considered as part of the cost estimates, phasing and implementation plans for the development of the Trail.

Committee on the Status of Endangered Wildlife in Canada (COSEWIC)

A committee of experts that assesses and designates which wildlife species are in some danger of disappearing from Canada.





AODA Draft Guidelines 2010:

"The accessibility strategy commonly applied to natural environments is to provide appropriate accessibility for persons with disabilities wherever practical, and to provide relevant information on the grade, cross-slope, width, surface, or length of the trail where it is not practical or appropriate to fully comply with the requirements." Rational for Paths and Trails, Final Proposed Accessible Build Environment Standard, 2010

Under section 11 of the Draft Guidelines 2010, specific reference is made to paths, recreation trails, and associated elements and facilities. The guidelines identify trails as being distinctly different from exterior walkways in that they are a voluntary recreational activity in themselves, and should be designed to meet a variety of needs and interests. Ideally, recreational trails need to be universally accessible. According to the Ontario's Best Trails Guidelines and Best Practices for the Design, Construction and Maintenance of Sustainable Trails for all Ontarians, 'Recreation Trails should provide all users with access to the same range of trail experiences. This means that trails should be designed to reach destinations or points of interest and travel through various environments.' Trails with 'no reason' should be avoided. Therefore, Erin's Riverwalk Trail needs to be developed to accommodate users with various levels of abilities and needs. In keeping with the County's Active Transportation design considerations, the Erin Rotary Riverwalk Trail should 'ensure that the needs of all user groups are accommodated and satisfy the requirements of the AODA to the greatest extent possible, given the context of each trails location, the surrounding environment and type of trail experience that is desired.'

Specific AODA criteria to be included will be: operational experience, trail width, various slopes (running and cross slopes) surface conditions, level changes and signage.

Other Relevant Reference Documents:

- Ontario's Best Trails Guidelines and Best Practices for the Design, Construction and Maintenance of Sustainable Trails for All Ontarians, 2006
- Wetland Trail Design and Construction 2007 (USDA Forest Service)
- Equestrian Design Guidebook for Trails, Trail Heads and Campgrounds;
- Access ON: A Guide to the Integrated Accessibility Standards Regulation Design of Public Spaces Standard;
- Crime Prevention Through Environmental Design (CPTED) Guidelines

1.2.4

Physiography/Natural Heritage Review & Assessment

The quality of a trail development is highly dependent upon its topographic characteristics. Physiographic features which substantially affect trail development include aspect (exposure), elevation and slope gradients; all derived from the area's geology and soils.

Exposure

Early topographical opportunities (and constraints) for both Erin's and Hillburgh's study sites are suggesting predominantly north-west/south-east orientations for trail development. Due to this orientation, terrain being considered for the new trails would provide opportunities and experiences facing all directions (north, south, west and east) depending on which section a user would be traversing.

Landform, Elevation and Geology

The most prominent feature in the Erin Rotary Riverwalk Trail Feasibility Study area is the 'riverscape' associated with the West Credit River and pond environments. In Erin, the lands being considered for trail development lie within the West Credit River corridor of the Town of Erin between the Elora-Cataract Trail and Charles Street. `

The potential vertical drop available for trail development plays an important role in site suitability since it determines the experience, challenge and degree of accessibility of a trail segment that can be supplied to trail enthusiasts and will inform the appropriate technique(s) required for implementation. Essentially, the more horizontal the better for accessibility, yet many trail users use vertical rise, and subsequent aspect (views out), as one of the yardsticks of a trail's desirability.

Soils

Soils are also an important consideration for trail development. The Soil Survey of the County of Wellington identifies several soil types within the Erin Rotary Riverwalk Trail Feasibility Study area. These include soils such as bottom land, muck and very small pockets of peat.

Bottom Land:

The term 'Bottom Land' is applied to all soils that occur on variable textured alluvial deposits in river and creek beds that are subject to periodic flooding. The soil material found in these locations consists of alluvial sands, silts and clays distributed at various times of the year, but very largely during the spring thaw. The texture of the material that is deposited is influenced by the source of supply and by the velocity of the stream during deposition. The more rapid the water movement the coarser are the materials deposited. Most of the areas of bottom land consist of alternating layers of coarse and fine materials. These soils have no profile development and their reaction is neutral in all locations. Pertaining to trail development the areas comprised of Bottom Land soils can provide an interruption to a trail's continuity due to periodic flooding and also provides challenges trail surface washouts; it depends on the length of time that trail segments in these areas remain flooded and erosive flood water velocity.

Muck:

Soils that have been classed as Muck consist of organic deposits that have accumulated in shallow lakes, ponds or wet undrained depressions. These soils differ from other soil series in that they are derived from decayed plant remains. These plant remains are well decomposed and the deposits consist of black, soft and fluffy organic material together with a few coarse particles of woody fragments from trees. The black material is derived from sedges and grasses, and from the leaf litter that is deposited annually by the deciduous trees. Muck soil is common in undrained depressions in which organic materials accumulate. Muck is most likely to develop in areas that are water-saturated for the entire year. Such locations are common in Wellington County in both upland areas and along the meandering stream channels or old glaciated spillways. The depth of the Muck varies from a few inches to several feet. In general the depths of the deposits in Wellington County exceed five feet. Organic soils do not have profile development like that which is found in mineral soils but they do have various layers. These layers can be differentiated on the basis of their composition, and on the degree of decomposition of the organic materials. These soils are neutral in reaction throughout the profile. Trail development is typically challenged by Muck soil conditions and in most cases development should avoid these areas.

Peat:

The Peat soils consist of organic deposits that have accumulated in shallow lakes, ponds or wet undrained depressions. Peat is not as well decomposed as Muck. It is brown and very fibrous. The roots, mosses and wood fragments that make up the deposit retain their structure. Peat soils are generally acidic and do not commonly occur in Southern Ontario but are found more often in more northerly regions. In Wellington County the Peat soils serve a most useful purpose as wildlife habitats and water reservoirs. It is expected that the trail development in the study areas will not encounter peat soils.

Drainage

The Erin Rotary Riverwalk Trail Feasibility Study area lies within the Credit Valley watershed and will experience and is prone to seasonal fluctuations in drainage volume and velocity. It is therefore subject to the policies of the Conservation Authorities Act under the Credit Valley Conservation Authority. The study area drains directly into the West Credit River which eventually drains into Lake Ontario. It is part of the Great Lakes Basin system. Trail development will respect existing drainage patterns.

Natural Heritage

Natural heritage includes many biophysical features. Vegetation is an important factor in trail development and provides considerable experiential opportunity for trail users – some of the best parts of a trail's development might be the stories the landscape can offer. Generally, Erin and Hillsburgh are within the Great Lakes-St. Lawrence Forest Region and encompasses the Erin Rotary Riverwalk Trail Feasibility Study areas. The communities are located adjacent to large tracts of agricultural land, and while at one time Wellington County was fully forested the Erin/Hillsburgh region now has sparse forest vegetation mostly confined to woodlots. In smaller patches, parts of the study areas appear to have mixed deciduous-coniferous tree species typically including white birch, yellow birch, sugar and red maple, beech, red oak, and basswood. Typical coniferous species seen include eastern hemlock, white pine, red pine and white cedar.

Natural Heritage
Information Centre
(NHIC)
Compiles, maintains
and distributes
information on
natural species, plant
communities and
spaces of conservation

concern in Ontario.

It is also important to note that changes in vegetation can in time change the properties of a soil. Both Erin and Hillsburgh are predominantly agricultural in character; it is difficult to measure the exact effect on the soils of these areas change from forest to a vegetation composed primarily of grass. However, there is little doubt that decaying grass roots produce a thicker surface layer than that formed under trees. Not only does the vegetation influence the development of soil, but the soil itself influences the vegetation – there may be a 'story' to reveal here, (due to agricultural practices), and future trail development could be influenced by this. The kinds of trees found in any location depend, to some degree, on soil conditions. For example, in Wellington County, beech and sugar maple are the dominant species growing on the well-drained loams; whereas elm, white cedar, and willow are most numerous where the soil is wet; and pine were likely in heavy stands on the well-drained sands.

Significant Wetlands

There is a provincially significant wetlands identified within or directly adjacent to the Erin Rotary Riverwalk Trail Feasibility Study area. This is known as the West Credit River Wetland Complex.

Significant Portions of the Habitat of Endangered or Threatened Species

Currently a portion of habitat for endangered or threatened species (Snapping Turtle) is within the Erin Rotary Riverwalk Trail Feasibility Study area. Because of this area's characteristics there may be the potential for other additional species at risk (SAR) to be present. These are noted to include several Bat species, the Canada Warbler, Wood Thrush and the Butternut Tree (NHIC database).

Fish Habitat

The West Credit River is considered a cold-water stream habitat sensitive to Brook Trout populations.

Town of Erin

Within the Erin Rotary Riverwalk Trail Feasibility Study area the Town of Erin has designated the land use as a Core Greenlands area. One main planning theme of the official plan includes policies to protect and enhance the natural environment/natural heritage while providing a high quality of life. Recognizing, in particular, the significance of the West Credit River as a component of the ecosystem, the natural environment contributes to the quality of life in the municipality and to its economic health through tourism.

County of Wellington Official Plan

The County of Wellington Official Plan identifies the Erin Rotary Riverwalk Trail Feasibility Study area within the Core Greenlands land use designation.



Photo-Documentation

In this next section, selected images taken at each of the study sites (Hillsburgh and Erin) are shown. *Photos by SKA 2016.*

Inventory Mapping

The following section showcases a number of mapping images illustrating important inventory information for the Erin Rotary Riverwalk Feasibility Study sites of Erin and Hillsburgh. These maps identify:

- Vegetation Areas (Forests, Wetlands, etc.)
- Lakes, Ponds, Rivers and Streams
- Species Locations
- Property Lines, Zones, Urban Use
- Contours, Slopes
- Dam Locations
- Primary Roadways
- Existing Trails, Trailheads, Parking Areas
- Businesses and Locations of Interest

*Note: See end of this section for mapping and photo-documentation

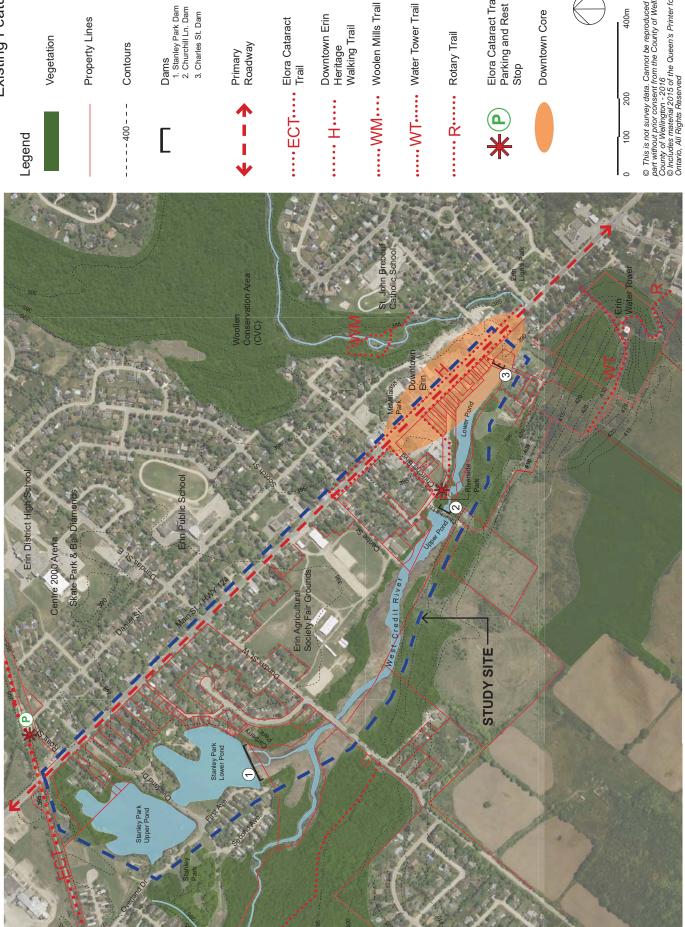
Existing Features Figure 5: Erin Site Inventory

Dams
1. Stanley Park Dam
2. Churchill Ln. Dam
3. Charles St. Dam

Property Lines

Contours

Vegetation



Downtown Erin Heritage Walking Trail

Elora Cataract Trail

Primary Roadway

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Elora Cataract Trail Parking and Rest Stop

Downtown Core

Town of Erin Schedule "B" By-law No. 07-67

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Legend



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Image adapted from Town of Erin Official Plan

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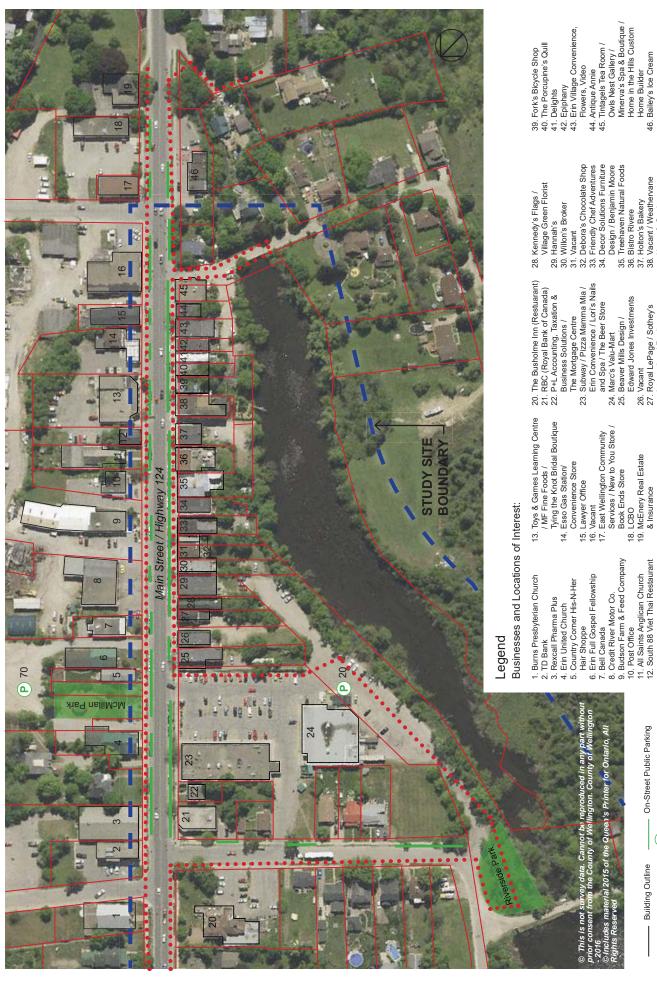
STUDY SITE

EDIEN

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Public Parking Lots

#

Property Outline

Home & Garden

International Realty

Natural Environment/Floodway

Erin Parcels

Roads

Erin Trails

Legend

CVC Generic Regulation

Crest Slope Comp

CVC Property

Herpetofauna

Sedge

Graminoid

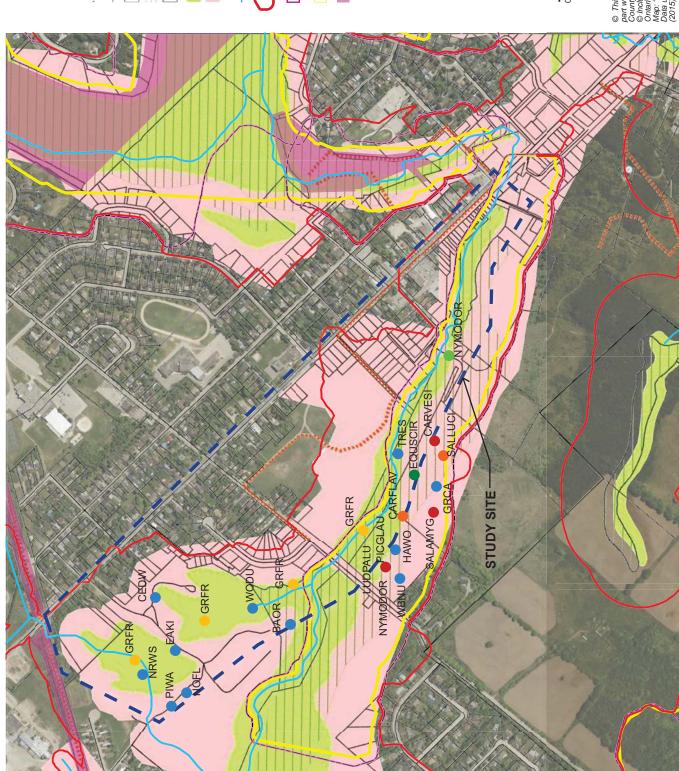
Fern

Slope Hazard Component

CVC River / Streams

Credit Hazard Lands

Wetlands



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SKA 2016

Erin Site Inventory Varied Images























Erin Rotary Riverwalk Trail Feasibility Study • August 2016

Existing Features Figure 10: Hillsburgh Site Inventory

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Property Lines

Contours

---400---

Dams

Vegetation

Legend



Elora Cataract Trail

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Primary Roadway

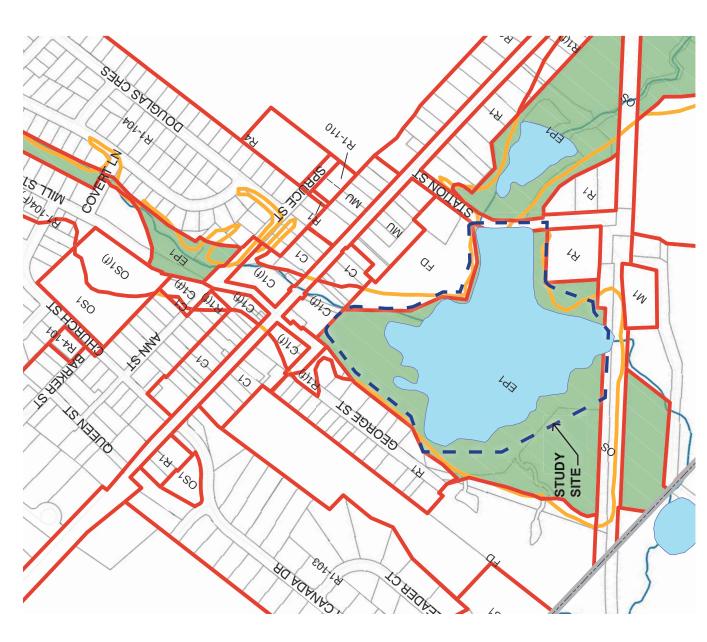
Elora Cataract Trail Parking and Rest Stop

Downtown Core

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Town of Erin



Schedule "C"
By-law No. 07-67

Legend
Lakes & Rivers
Lakes & Rivers
Zones
Zones
EPI
Streams
Village of Hillsburgh Boundary
----- Proposed Lotsgo

75 150 3

Image adapted from Town of Erin Official Plan

Updated: February 16, 2011.

Sources: County of Wellington Planning and Development Department 2011. Teranet 2002. Upper Grand District School Boa

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Hillsburgh Land Use Figure 12: Hillsburgh Site Inventory



Legend

- Residential

Central Business District

- Residential Transition Area - Highway Commercial

- Industrial

- Core Greenlands

- Greenlands

- Recreational

- Community Improvement Area

- Regulatory Floodline

Proposed Minor Collector
Final Alignment to be determined

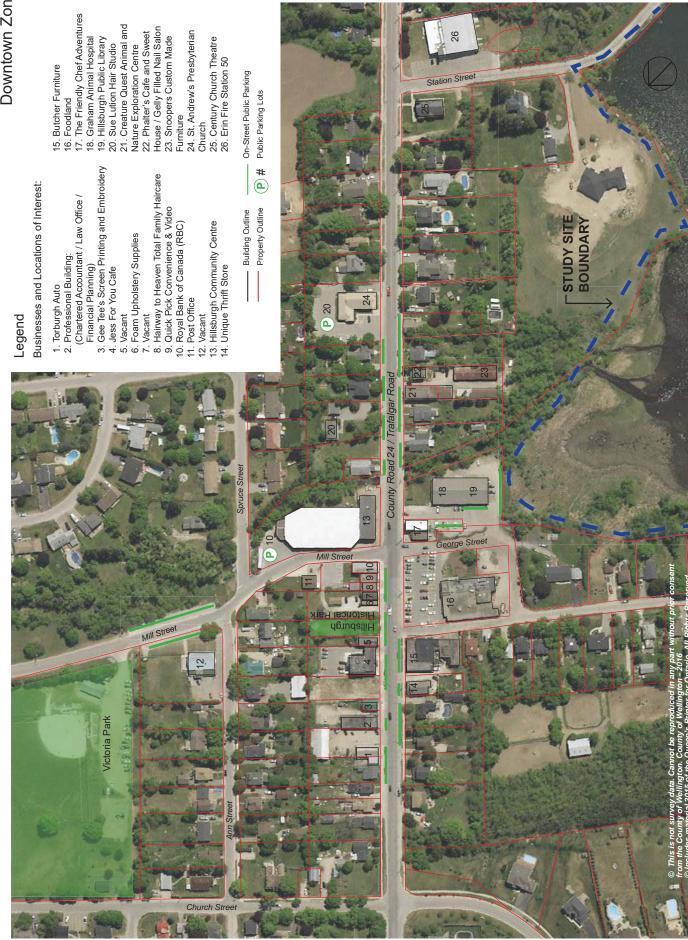
Future Development

* Proposed New Firehall Location

- Built Boundary

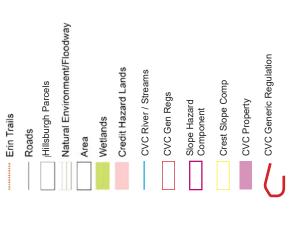


Image adapted from Town of Erin Official Plan



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Legend

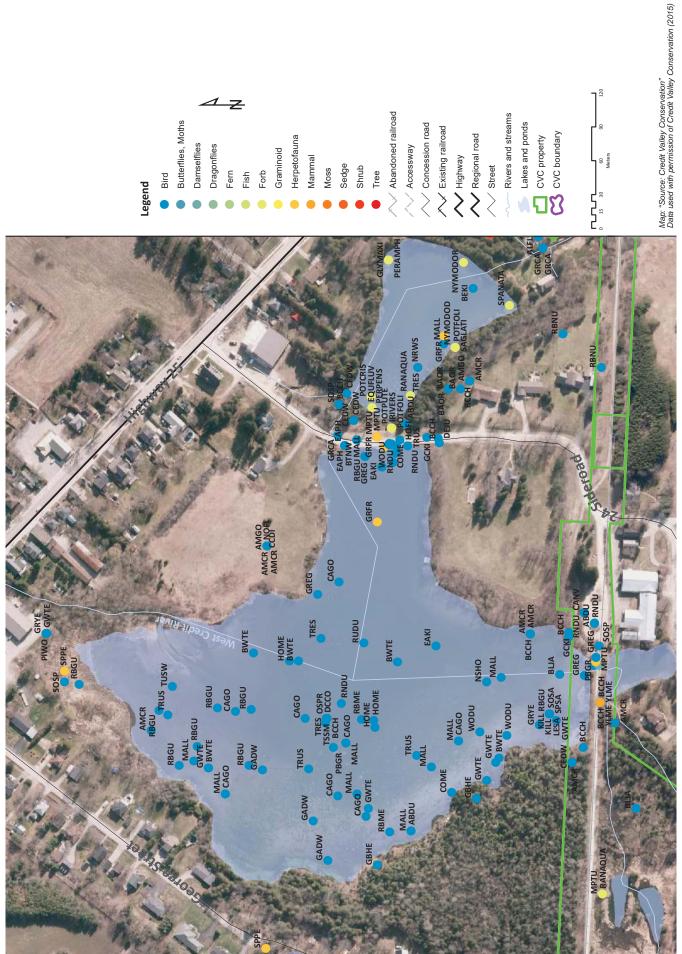




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STUDY SITE



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