CREDIT RIVER PARKS STRATEGY

part 1 - the strategy

part 2 - the background

part 3 - the appendices

prepared by

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March 11, 2013

Foreword

This document, Part 2 – The Background – is one of the three inter-related reports that comprise the Credit River Parks Strategy.

This Background document provides a description of the characteristics and context of the Credit River Parks Strategy study area. The report describes the natural and cultural heritage resources of the study area as well as the policies and legislation that guided on the recommendations included in the Strategy. The findings documented in this report provided the foundation for the development of the Credit River Parks Strategy.

This document is supported by:

- Part 1 – The Strategy
  The Strategy sets out the vision, principles and objectives that guided the development of the overall Credit River Parks Strategy. The Strategy provides a description of the components that comprise the overall Master Plan for the valley corridor and Preferred Concept Plans for each of the seven "Feature Sites" that are positioned as integral destinations within the Master Plan. This report also includes an Executive Summary that provides a synopsis of the key components of the Strategy. This report also sets out directions to guide the implementation of the proposed Strategy over a 25-year timeframe.

- Part 3 – The Appendices
  This document provides the detailed technical information that was compiled as a product of the research, inventory and assessment processes. This information served as the foundation for the Strategy. In addition, the document provides a summary of the public consultation process and includes a comprehensive response document.

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The Credit River Parks Strategy Team

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Credit River Parks Strategy

Part 2 – The Background

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2.1 Introduction

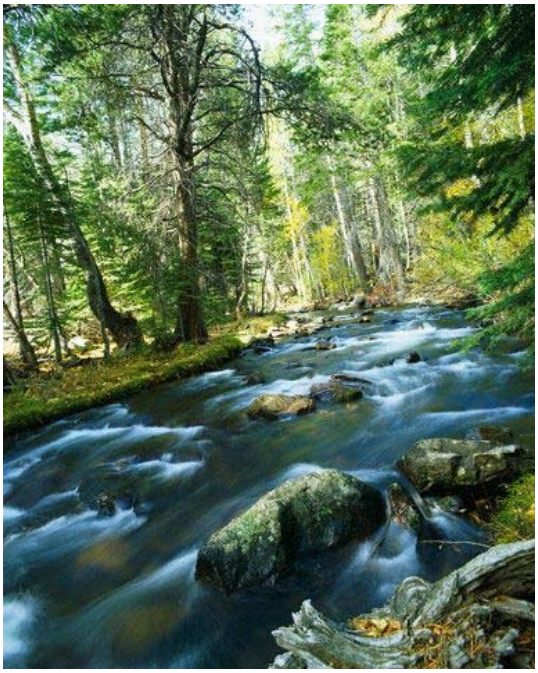
The Credit River is a defining natural feature of the City of Mississauga. It is the principal reason for the establishment of the City, exerting a profound influence on the development of the City's economy and culture, especially in the formative years when the City was comprised of a number of smaller communities founded along the river valley. The Credit River Parks Strategy (CRPS) respects the special role that the River has played in the evolution of the City. It recognizes the value of the River from the natural, economic, recreational and cultural perspectives.

The CRPS was developed to guide the long-term management and use of the lands identified by the City of Mississauga as the CRPS study area. The CRPS study area includes both valleylands and selected tableland areas along the Credit River.

The CRPS is the blueprint to guide the long-term enhancement, management and use of the Credit River valleylands with the objective of reinforcing the prominent position of the river corridor as one of Mississauga's most important environmental, cultural and recreational assets. The CRPS sets out recommendations to guide the preservation and enhancement of natural heritage features and the protection and interpretation of cultural heritage resources as well as promoting a range of active and passive recreational pursuits, including the establishment of a fully connected trail system.

2.1.1 Overview

Extending from the shores of Lake Ontario to the Oak Ridges Moraine, the Credit River Watershed supports a diverse and healthy ecosystem that sustains hundreds of rare and significant species of fauna and flora. The river has supported generations of human populations ranging from First Nations to European settlers and provided the foundation of the early economy of Toronto Township. The river served to catalyze the establishment and growth of the many settlements that would eventually become the major municipalities within the watershed, including the City of Mississauga. The valley corridor associated with the Credit River now exists as the largest continuous open space system in the City of Mississauga, affording recreational, social, economic and environmental benefits.



The study area included seven "Feature Sites" within the context of the river valley corridor extending from just north of the Lake Ontario waterfront to Highway #407. The study area was defined by the City of Mississauga Natural Area System (NAS). The NAS was determined on the basis of habitat sensitivity and species richness, as well as a complexity of biophysical factors, as the product of a separate study process. The CRPS study area also included buffers to protect existing natural

features. In addition, the scope of the study extended beyond this set boundary to ensure that linkages to the contextual greenway system, circulation network, community facilities and historical resources were fully integrated into the strategic plan.

The goal of the study as set out by the City of Mississauga was to:

"Develop a sustainable, innovative and environmentally responsible master plan to guide the planning, development, conservation and management of a contiguous system of publicly owned and publicly accessible parkland and natural areas along the Credit River."

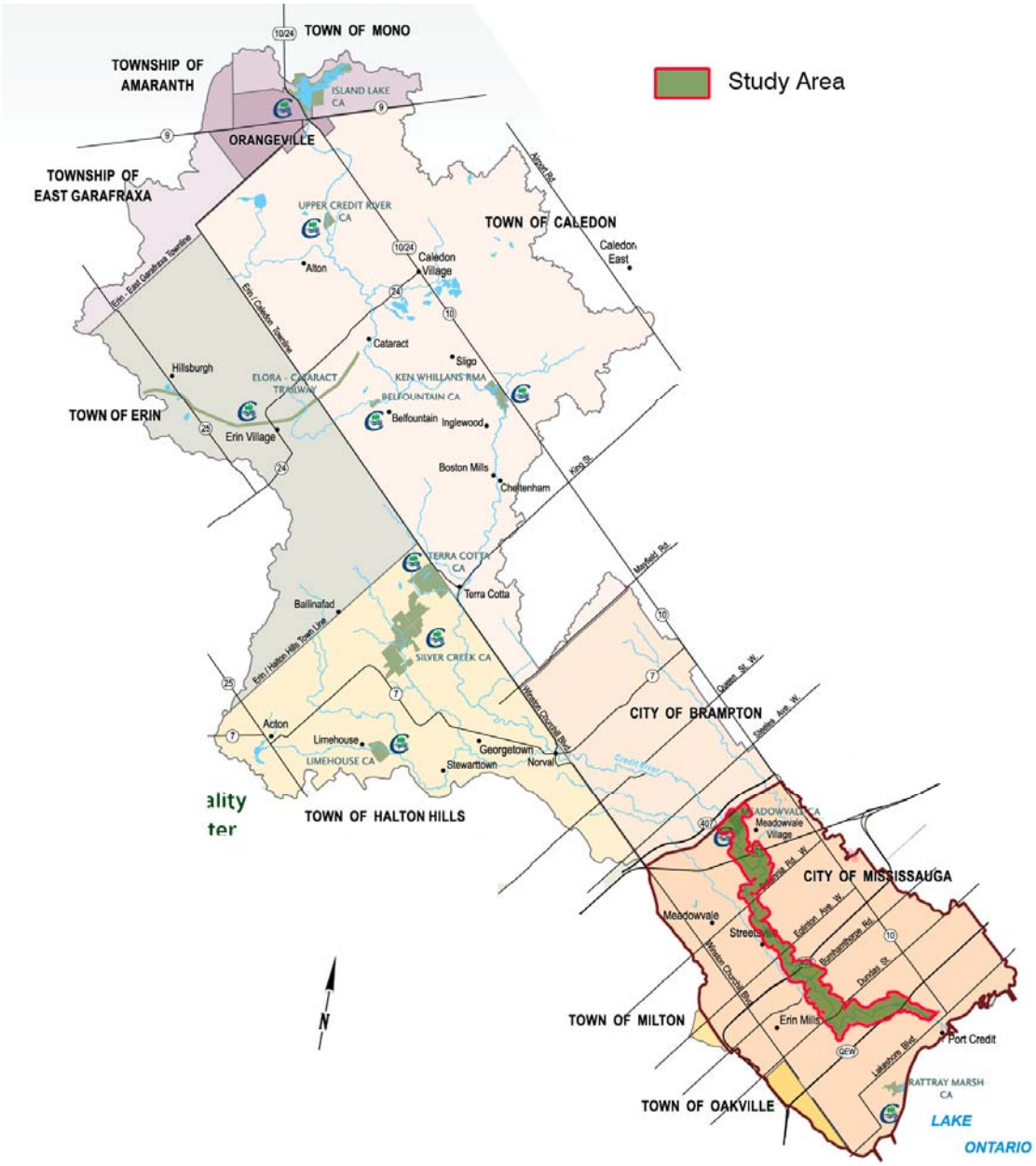


Figure 2.1: Credit River Watershed (CVC) and study area

2.1.2 The Inception

The CRPS owes much to the seminal work of former Councillor, David J. Culham and the *Friends of the Valley* consisting of: Ted Baker, a landscape architect responsible for the initial design in the Valley; Eric Fisker, a resident active in the Erindale Woodlands; Jim Holmes, former president of the Meadowvale Village Ratepayers Association; Jim Lewis, a lawyer, who lived adjacent to river; Roslynne Mains, former president of the Erindale Ratepayers; John Rogers, a planner and resident adjacent to the valley; Glen Schnarr, a planner and former general manager of the CVC; Bob Semenyk, former president of the Glen Erin Ratepayers to the east; and, Paul Stafford, an architect and resident in Erindale Village.

Their collective efforts, between 1981 and 2000 contributed directly to Mississauga's parks system and to the specific development of Erindale, Riverwood, Credit Meadows and Hewick Meadows as well as the acquisition of specific lands north of Rivergrove Community Centre, the routing of Derry Road by-pass at minimum valley exposure through the appeal to the Environmental Assessment Review Board, soil conservation programs, and the centralizing valley trail. The Credit River Valley (Mississauga) Foundation, which was established by the City in 1981 at the recommendation of "The Friends of the Valley", became the vehicle for donations of valley land. The valley lands in Riverwood were donated, as where the lands south of Burnhamthorpe and Hewick Meadows, through this Foundation. The Friends of the Valley planted approximately 100,000 potted trees during the preceding 20 years, contributing directly to the ecological 'health' of the river. Its members have coordinated numerous annual and seasonal trail walks to educate the public and raise awareness of the importance of the valley corridor. The important work of this dedicated group served as the impetus for the CRPS.

2.1.3 The Study Area

The CRPS study area holds the potential to become a premier destination that offers a range of amenities and programs that are compatible with its environmental conditions and context including recreation, tourism, and natural and cultural heritage appreciation opportunities. However, when considering these prospects, the Strategy placed an emphasis on the importance of protecting and enhancing the ecological features and functions of the Credit River corridor.

2.1.3.1 Civic Identity

The CRP System makes a substantial contribution to the character of the City of Mississauga. The Credit River makes an important contribution to civic identity, contributing to a sense of place and establishing the natural character for the City. The history of the River, its ongoing association with First Nations peoples and the historically rich local communities of Port Credit, Erindale, Meadowvale and Streetsville, strengthens the cultural identity of the City.

The parks and open space network within the study area as illustrated in Figure 2.4 comprises 20% of Mississauga's parkland. The sheer extent of valleyland frontage presents an opportunity to blend the interface of urban and natural landscapes, integrating the valley system with the fabric of the City and binding the river with the communities that it abuts.

Approximately 39% of the study area is located within the floodplain of the Credit River.

The "Feature Sites" that are distributed throughout the study area account for 392ha (26% of Study Area). Of the total "Feature Site" land base 54% (212ha) is situated within the floodplain of the Credit River. Figure 2.15 illustrates the extent of the study area that is located within the floodplain.

In response, the CRPS is aimed at establishing a new vision for the 'face of the river' within Mississauga, knitting together the distinct park areas and landscapes that comprise the study area, complementing the natural heritage system, accentuating cultural heritage and programming, providing civic amenities and capitalizing upon tourism opportunities .

Landscape Character

The CRPS embraces the diverse natural and cultural landscapes within the study area and celebrates the character of the River itself, highlighting the relationships between the River, the community and the City at-large. In response, the CRPS achieves an appropriate balance amongst the ecological, recreational, cultural and economic objectives and defines common physical, ecological and thematic linkages that will bind the whole corridor together.

2.1.3.2 Community Engagement Strategy

The Community Engagement Strategy was designed to provide the public, stakeholder groups, First Nations and the community at-large with opportunities to learn about and contribute to the CRPS. The process provided an opportunity to seek out and communicate with stakeholders and the public-at-large including:

- 8,500 through direct mail out;
- 7,000 through Miranet;
- 300 through individual meetings;
- 300 members of Credit River Anglers Association;
- 100 The Riverwood Conservancy (TRC) and 150 Visual Arts Mississauga (VAM) members;
- 500 members of other various organizations; and,
- 60 members of municipal and partner agency staff.

The CRPS is the product of an extensive community and stakeholder consultation process that involved one-on-one interviews, stakeholder interviews, community meetings, a bus tour and public meetings. The consultation process was aimed at achieving the following:

- Gaining an understanding of issues of concern;
- Identifying opportunities;
- Shaping the vision, principles and objectives;
- Exploring ideas and confirming appropriate enhancement and management options; and,
- Developing and evaluating the proposed Master Plan and Preferred Concept Plans for the seven "Feature Sites".

Community engagement for the CRPS occurred throughout the planning process and involved hundreds of individuals and stakeholders. The community engagement process commenced in November of 2010 and concluded with a final public meeting on the Draft CRPS in June 2012. Through the engagement process,

members of the public and stakeholders were invited to participate in a wide range of meetings and activities, comment on key aspects of the Strategy, including the vision, goals, principles, and provide commentary on the "Feature Site" concept plans and overall Master Plan. Engagement activities for the CRPS included:

- Notice provided to 8500 properties located adjacent the Credit River;
- Five community meetings to obtain feedback from the general public and stakeholder groups at key points in the planning process;
- Seventeen, one-on-one interview sessions with principal stakeholders including the following:
  - A number of focus groups with City, Conservation Authority and Region of Peel staff,
  - Three First Nations consultation meetings to identify the needs and aspiration of First Nations groups;
  - A series of random interviews at 10 public sites throughout the City to ensure that the feedback received related to the project site was representative of the City as a whole;
  - Two internet surveys designed to solicit input from a broad cross-section of park users, by posing a series of questions about the vision for the Credit River parks, how the parks are presently used and aspirations for use in the future;
  - Resident meetings in several neighbourhoods that are proximate to the Credit River corridor to discuss resident perspectives on the CRPS;
  - A Bus Tour to provide stakeholders and park users an opportunity to explore the CPRS "Feature Sites" and provide feedback on the Optional Concept Plans for each site.
  - Presentation to 5 committees of Council including AAC, EAC, MCAC, HAC, ENT; and,
  - Televised presentations through Rogers Community Channel and the Mississauga News.

The following provides a summary of the key feedback and recommendations garnered through the community engagement process. These comments were considered by the project team and are reflected in the final Strategy.

- The CRPS should focus on naturalization and protection of the open space system along the Credit River;
- The areas along the Credit River provide important recreational and social functions, which should also be supported and enhanced by the Strategy;
- The CRPS should strive to minimize human impact on the "Feature Sites" and preserve what is already there;
- Components of the CRPS that raise awareness about local food, cultural heritage and local history are important; Opportunities for learning, interpretation, stewardship and volunteerism are also very valuable;
- Connecting the "Feature Sites" and providing continuous trails along the Credit River is critical;
- Park elements that will result in an increase in public use should be placed away from private residential properties and sensitive environmental areas;
- Stakeholders and the public, especially local residents, want to be continually involved in the planning process and informed about the decisions that affect them; and,
- Preservation and enhancement of the Credit River should be the focus of the Strategy.

The consultation process was also focussed on identifying potential partnerships to benefit the implementation of components of the Strategy. A description of the Community Consultation approach and Public Engagement Program are provided in Appendix M.

2.1.3.3 Data Sources

Several sources of data were utilized to characterize the natural heritage features present within the CRPS study area. The Natural Areas Survey database, maintained by *North-South Environmental Inc.* (NSE) for the City of Mississauga, was used as the primary source of ecological information. This database contains floral and faunal species records and vegetation community information for all of the natural areas within the City of Mississauga. Natural Areas Survey sites have been monitored for over ten years.

The City of Mississauga provided digital files of Natural Areas Survey mapping to enable Geographic Information System (GIS) applications. In addition to background data provided by the Natural Areas Survey database and the City of Mississauga, several other sources of information were incorporated in the assessment of natural heritage features. A complete list of data utilized in the process of preparing the CRPS is provided in Appendix C.

2.1.3.4 Background Review

The background review was the product of the first stage in the process of developing the CRPS. This section of the report provides a summary of the technical inventories, fact-finding and consultation process, and site analysis and identifies the opportunities and constraints that informed the development of the CRPS.

The review provides an assessment of the landscape of the CRPS study area (refer Section 2.6.1) as well as a more specific assessment for each of the seven "Feature Sites".

The background review exercise was aimed at:

- Identifying current issues of concern to be addressed in the context of developing the CRPS;
- Guiding the development of a master planning framework as the basis for defining a vision goals and objectives;
- Informing the development of principles to support the framework; and,
- Ensuring consistency with the goals and objectives that serve as the basis for the Natural Areas System identified in both the Region of Peel and City of Mississauga Official Plans.

The following tasks were completed as components of the background review and inventory phase of the project:

Review of Background Information

A review of all relevant background information was conducted including maps, previous studies, past public engagement summary reports, management initiatives and policy documents to gain an understanding of the characteristics of landscape, note challenges that were previously identified and confirm initiatives already planned or implemented to address these challenges. A complete catalogue of information utilized in the process of generating the CRPS is provided in Appendix C.

Collection, Review and Consolidation of Mapping

Digital maps were provided in both GIS and AutoCAD formats from the City of Mississauga's database as well as from other sources. These individual maps were consolidated to create a comprehensive composite base plan of the study area.

Landscape Assessment and Field Investigations

Utilizing the base mapping previously described, multiple site visits were conducted through late summer and fall of 2010 to assess the following:

- Trail conditions and continuity;
- Patterns of use, access points, parking areas and nearby transit locations;
- The location and condition of structures, bridges, stormwater outfall locations, engineered riverbank revetments, dams and other structures;
- Recreational facilities;
- Natural areas including condition of understorey, presence of invasive species, canopy layer and impacts associated with use;
- Cultural heritage features; and,
- Views and vistas.

A general description of existing landscape features, structures, recreational facilities, cultural and natural heritage resources are described in more detail in Sections 2.6.1.1 – 2.6.1.7 of the report.

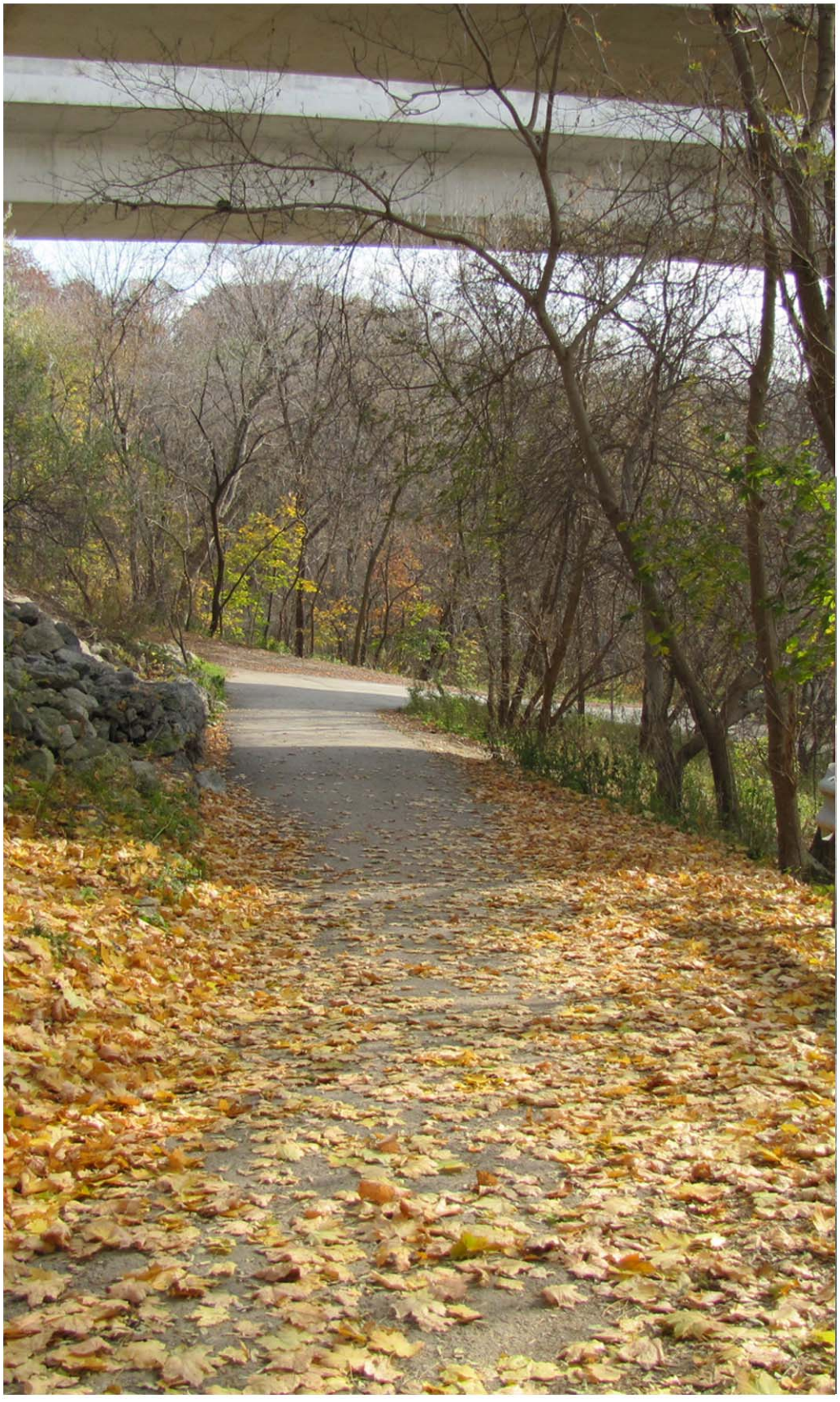
Policy Review

Existing policies and relevant plans were reviewed to ensure that the recommendations set out in the CRPS are consistent with the natural, cultural, economic, environmental, land use and social policies provided by all levels of government.

To this end, policies and plans from the following agencies were reviewed:

- Government of Canada;
- Province of Ontario;
- Credit Valley Conservation (CVC);
- Region of Peel; and,
- City of Mississauga.

The policy review and site analysis provided the fundamental basis for the development of the CRPS.



2.2

2.2 Policy Context

Existing policies and legislation from the various levels of government were reviewed as the basis for developing the CRPS, specifically the following policies were reviewed:

Federal Policies / Legislation:

- Fisheries Act - R.S.C., 1985, c. F-14 Amended 2012, henceforth referred to as "The Fisheries Act"
  - The Federal Fisheries Act, enforced by Fisheries and Oceans (DFO), regulates the protection of fish and fish habitat. As defined within the Credit River Fisheries Management Plan (2002), the fishery of the Credit River is an essential asset that contributes to the ecological health and sustainability of the watershed. The Credit River supports close to 50 different species of fish despite being located within one of the largest urban centres in Canada. The Fisheries Act prohibits the "harmful alteration, disruption or destruction" (HADD) of fish habitat, with the long-term objective of achieving an overall net gain in fish habitat capacity. An "Authorization" from DFO is required before a project that may constitute a HADD can proceed. With respect to the CRPS, the Fisheries Act had implications on proposals to implement new bridges or modify the river.

- Navigable Waters Protection Act - R.S.C., 1985, c. N-22, henceforth referred to as "The Navigable Waters Protection Act"
  - The Navigable Waters Protection Act, enforced by Transport Canada ensures the public's right to navigate Canada's waters without obstruction. Moreover, the NWPP approves works such as bridges, weirs and dams that are located on navigable waters in Canada. The Credit River is designated as "Navigable Water" through the Act and is therefore approval under this legislation will be required to facilitate the implementation of any structure or alteration to the river that may impede navigation.

Provincial Policies / Legislation:

- Provincial Policy Statement 2005
  - Part V: Policies: Building Strong Communities (p. 10)
  - 1.5 Public Spaces, Parks and Open Spaces
  - 1.6 Infrastructure and Public Service Facilities
  - 2.0 Wise Use and Management of Resources (p. 15)
  - 2.1 Natural Heritage
  - 2.2 Water (p. 16)
  - 2.6 Cultural Heritage and Archaeology (p. 21)
  - 3.0 Protecting Public Health and Safety (p. 22)
  - 3.1 Natural Hazards

  These policies influenced the development of the CRPS.

- Places to Grow Act, 2005, S.O. 2005, Chapter 13 (Last amendment: 2012, c. 8, Sched. 46.)
  - The Government of Ontario recognizes that in order to accommodate future population growth, support economic prosperity and achieve a high quality of life for all Ontarians, planning must occur in a rational and

strategic way. The Government of Ontario recognizes that building complete and strong communities making efficient use of existing infrastructure and preserving natural and agricultural resources will contribute to maximizing the benefits, and minimizing the costs of growth.

The Government of Ontario recognizes that identifying where and how growth should occur will support improved global competitiveness, sustain the natural environment and provide clarity for the purpose of determining priority of investments.

The purposes of this Act are;

a) to enable decisions about growth to be made in ways that sustain a robust economy, build strong communities and promote a healthy environment and a culture of conservation;
b) to promote a rational and balanced approach to decisions about growth that builds on community priorities, strengths and opportunities and makes efficient use of infrastructure; and,
c) to enable planning for growth in a manner that reflects a broad geographical perspective and is integrated across natural and municipal boundaries;
to ensure that a long-term vision and long-term goals guide decision-making about growth and provide for the coordination of growth policies among all levels of government 2005 c 13, s 1

- Endangered Species Act, 2007, Ontario Regulation 230/08, S.O. 2007, Chapter 6
  - The Endangered Species Act regulates the habitat of "Species at Risk" (SAR) in Ontario. "Species at Risk" that are of concern and which have been observed within the CRPS study area can be found in the Natural Heritage Features Summary for each NAS site (Appendix G).

- The Parkway Belt West Plan, 1978 (Consolidated to June 2008)
  - The "Parkway Belt West Plan" (PBWP) was introduced in 1978 for the purposes of creating a multi-purpose utility corridor, urban separator and linked open space system. The areas of the PBWP that overlap the CRPS study area are shown on Figures D-1A and D-1B. The PBWP is a culmination of regional planning, greenbelt and greenway planning.
  - 2.0 Goals
  - 2.1 Identification of Urban Areas – Separate and define the boundaries of urban areas, thus helping to provide the residents with a sense of community identification.
  - 2.2 Integration of the System of Urban Areas – Link urban areas and areas outside the region by providing space for the movement of people, goods, energy, and information, without disrupting community integrity and function.
  - 2.3 Land Reserve for Future Flexibility – Provide a land reserve for future linear facilities and for unanticipated activities requiring sites of high accessibility and substantial land area.
  - 2.4 Linked Open Space Framework – Provide a system of open space and recreational facilities linked with each other, nearby communities and other recreational areas.
  - 6.3.2 Specific Objectives (Southern Link)
  - p) Provide for future utilities.

- q) Provide for public open space at Oakville Creek-East Oakville Creek, Credit River Mullet Creek, and Centennial Park-Etobicoke Creek.
- r) Provide open space between urban areas to maintain the continuity of open space from the Escarpment Link to the rural area east of the Credit River
- s) Provide for recreational trails and associated facilities between the Escarpment Link and Centennial Park.
- t) Preserve the following prominent natural features:
- ii) Credit River-Mullet Creek Valleys
- u) Protect tree stands that are either significant in their own right or serve as buffers.
- 6.3.2/ 6.4.2 Specific Objectives (Northern Link)
- s) Provide for future utilities.
- t) Provide for public open space at the Credit River, Etobicoke Creek, and the West Humber River.
- u) Provide open space between Brampton Urban Areas and the Metropolitan Toronto Urban Area/Mississauga Industrial Area so as to maintain the continuity of open space from the rural area west of Highway 410 to the rural area east of the Brampton Urban Area.
- v) Provide for recreational trails and associated facilities between the Burlington-Oakville Mini-belt Link and Martin Grove Road.
- w) Preserve the following prominent natural features:
- i) Credit River Valley
- x) Protect tree stands that are either significant in their own right or serve as buffers

The PBWP included specific "Implementation Actions" related to both the Northern and Southern Links.

- Greenbelt Plan (2005)
  - The Greenbelt Plan identifies areas where urbanization should not occur in order to provide permanent protection for ecological feature and functions and the agricultural land base in the Golden Horseshoe. The Greenbelt Plan established the Protected Countryside which is comprised of a Natural System and an Agricultural System along with defined Settlement Areas. The Greenbelt Plan supports the PBWP as well as other provincial level initiatives.

  1.2.1 Vision
  - The Greenbelt is a broad band of permanently protected land which:
  - Protects against the loss and fragmentation of the agricultural land base and supports agriculture as the predominant land use;
  - Gives permanent protection to the natural heritage and water resource systems that sustain ecological and human health and that form the environmental framework around which major urbanization in south-central Ontario will be organized; and
  - Provides for a diverse range of economic and social activities associated with rural communities, agriculture, tourism, recreation and resource uses.

  1.2.2 Goals
  - 1.2.2.1 Agricultural Protection
  - 1.2.2.1d Provision of the appropriate flexibility to allow for agriculture , agriculture-related and secondary uses, normal farm practices and an evolving agricultural/rural economy
  - 1.2.2.2 Agricultural Protection

- 1.2.2.2a Protection, maintenance and enhancement of natural heritage, hydrologic and landform features and functions, including protection of habitat for flora and fauna and particularly species at risk;
- 1.2.2.2b 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 such as the Great Lakes Coast, the Carolinian Zone, the Lake Erie Basin, the Kawartha Highlands and the Algonquin to Adirondacks Corridor;
- 1.2.2.2c Protection, improvement or restoration of the quality and quantity of ground and surface water and the hydrological integrity of watersheds; and
- 1.2.2.2d Provision of long-term guidance for the management of natural heritage and water resources when contemplating such matters as development, infrastructure, open space planning and management, aggregate rehabilitation and private or public stewardship programs.
- 1.2.2.3 Culture, Recreation and Tourism
- 1.2.2.3a Support for the conservation and promotion of cultural heritage resources;
- 1.2.2.3b Provision of a wide range of publicly accessible built and natural settings for recreation including facilities, parklands, open space areas, trails and water-based/shoreline uses that support hiking, angling and other recreational activities; and
- 1.2.2.3c Enabling continued opportunities for sustainable tourism development.
- The CRPS study area includes lands that are part of the Parkway Belt West Plan area. The Greenbelt Plan sets out the following policy related to these lands.

2.3 Lands within the Parkway Belt West Plan Area

- The requirements of the Parkway Belt West Plan, deemed to be a development plan under the Ontario Planning and Development Act, 1994 continue to apply to lands within the Parkway Belt West Plan Area and the Protected Countryside policies do not apply with the exception of sections 3.2 and 3.3.
- The CRPS study area is not designated as Protected Countryside within the Greenbelt Plan and therefore is not subject to the policies that regulate development of site alteration within the Protected Countryside. The Credit River Valley is designated as an "External Connection" within the Greenbelt Plan. The following policies apply to "External Connections".

3.2.5 External Connections

- To support the connections between the Greenbelt's Natural System and the local, regional and broader scale natural heritage systems of southern Ontario, such as the Lake Ontario shoreline, including its remaining coastal wetlands , the Great Lakes Coast, Lake Simcoe, the Kawartha Highlands, the Carolinian Zone and the Algonquin to Adirondacks Corridor, the federal government, municipalities, conservation authorities, other agencies and stakeholders should:
- 1. Consider how activities and land use change both within and abutting the Greenbelt relate to the areas of external connections identified in this Plan;
- 2. Promote and undertake appropriate planning and design to ensure that external connections are maintained and/or enhanced; and

- 3. Undertake watershed based planning, which integrates supporting ecological systems with those systems contained in this Plan.
- The river valleys that run through existing or approved urban areas and connect the Greenbelt to inland *lakes* and the Great Lakes are a key component of the long-term health of the Natural System. In recognition of the function of the urban river valleys, municipalities and conservation authorities should:
- 1. Continue with stewardship, remediation and appropriate park and trail initiatives which maintain and, to the extent possible, enhance the ecological features and functions found within these valley systems;
- 2. In considering land conversions or redevelopments in or abutting an urban river valley, strive for planning approaches that:
- a) Establish or increase the extent or width of vegetation protection zones in *natural self-sustaining vegetation*, especially in the most ecologically sensitive areas (i.e. near the stream and below the stable *top of bank*);
- b) Increase or improve *fish habitat* in streams and in the adjacent riparian lands;
- c) Include landscaping and habitat restoration that increase the ability of native plants and animals to use valley systems as both *wildlife* habitat and movement corridors; and
- d) Seek to avoid, minimize and/or mitigate impacts associated with the quality and quantity of urban run-off into the valley systems; and
- 3. Integrate watershed planning and management approaches for lands both within and beyond the Greenbelt.
- In addition to the urban river valleys, portions of the former Lake Iroquois shoreline, particularly within Durham Region, traverse existing or approved urban areas. Municipalities should consider planning, design and construction practices that maintain or where possible enhance the size, diversity and *connectivity* of *key natural heritage features* and *key hydrologic* features and functions of those portions of the Lake Iroquois shoreline within their approved urban boundaries.

3.2.6 Proposed "Urban River Valley" Amendment

- The Ontario Ministry of Municipal Affairs and Housing is proposing to amend the Greenbelt Act, 2005 to add a new "Urban River Valley" designation to the Greenbelt Plan. The new designation is intended to facilitate adding publicly-owned lands that are located within urban river valleys that are currently outside of the Greenbelt into the Greenbelt Plan. Should the proposed amendment be approved, municipalities that have an interest in having the "Urban River Valley" designation apply to publicly-owned lands, a request would be submitted to the Ministry based on the "Growing the Greenbelt" criteria.
- For the publicly-owned lands that are located within the Credit River Valley in Mississauga, the proposed designation would rely on the policies contained within the Region of Peel and City of Mississauga Official Plans that relate to Greenbelt objectives and any other applicable criteria. The Protected Countryside policies of the Greenbelt Plan would not apply.
- Should the proposed amendment be approved, it is recommended that the City seek to designate the publicly-owned lands within the Credit River Valley as "Urban River Valleys" within the Greenbelt Plan.

- **Growth Plan for the Greater Toronto Golden Horseshoe (2006)**

- 4.2.1 Natural Systems
- 4.2.2 Prime Agricultural Areas
- A Culture of Conservation

- Bill 51 (The Planning and Conservation Land Statute Amendment Act (2005))
  - This legislation sets out a number our amendments to the Planning Act and Conservation Land Act. The majority of the amendments relate to Ontario Municipal Board procedures and processes, however, there are several policies within Bill 51 that are relevant to the CRPS including the following:

    Part I, Subsection 3 – Revisions to Definitions
    - Subsection 1 (1) of the Act is amended by adding the following definition:
    - "provincial plan" means,
    - (a) the Greenbelt Plan established under section 3 of the *Greenbelt Act, 2005*,
    - (e) a growth plan approved under the *Places to Grow Act, 2005*,

    Part II – Amendments to Other Acts
    - Conservation Land Act
    - (1) Subsection 3 (2) of the *Conservation Land Act* is repealed and the following substituted:
    - Conservation easements and covenants
    - (2) An owner of land may grant an easement to or enter into a covenant with one or more conservation bodies,
    - (a) for the conservation, maintenance, restoration or enhancement of all or a portion of the land or the wildlife on the land;
    - (b) for the protection of water quality and quantity, including protection of drinking water sources;
    - (c) for watershed protection and management;
    - (d) for the purposes prescribed by the regulations made under this Act or
    - (e) for access to the land for the purposes referred to in clause (a), (b), (c) or (d).
    - Easement reserved by conservation body
    - (2.1) When a conservation body conveys land, it may reserve an easement for a purpose referred to in subsection (2).
    - Same
    - Legislative Assembly of Ontario I Bills & Lawmaking I Past & Present .11 51, Planning and Conservation Land Statute Law Amendment Act, 2006
    - (2.2) A reference in any Act or regulation to easements granted under this Act also applies to easements reserved in accordance with subsection (2.1).
    - (2) Section 3 of the Act is amended by adding the following subsection:
    - No merger of registered easement
    - (6.1) If a conservation body that is a party to an easement that is registered as described in subsection (5) becomes the owner of the affected land,
    - (a) the easement is suspended but does not merge; and
    - (b) if the conservation body afterwards conveys the land, the easement becomes effective again.

- Conservation Authorities Act, Ontario Regulation 160/06 Section 28.
  - Within the Credit River Watershed, the CVC acts under the Conservation Authorities Act, which mandates the CVC to prevent, eliminate, or reduce the risk to life and property from flooding and erosion. Moreover, for the purposes of accomplishing this, the CVC has the authority to control the

flow of surface waters in order to prevent floods or pollution or to reduce the effects thereof (Section 21.1 Conservation Authorities Act.).

- The policies of the CVC specify the following with respect to development within the valley lands associated with streams or rivers:
  'No development is permitted in areas within the jurisdiction of the Authority that are river or stream valleys…whether or not they contain a watercourse, the limits of which are determined in accordance with the following regulations.
  - where the river or stream valley is apparent and has stable slopes, the valley extends from the stable top of bank, plus 15m, to a similar point on the opposite side;
  - distance from the predicted meander belt of a watercourse plus 15m; where the river or stream valley has unstable slopes, 100 year flood line, plus 15m
  - hazardous lands;
  - wetlands; or
  - other areas where development could interfere with the hydrologic function of a wetland (requires 30m setback) including areas within 120m of all provincially significant wetlands.'
- In the context of this regulation, "Development" means the creation of an new lot, a change in land use; or the construction of buildings and structures, requiring approval under the Planning Act, but does not include: (a) activities that create or maintain *infrastructure* authorized under an environmental assessment process; (b) works subject to the Drainage Act (MMAH, 2005), (CVC Watershed Planning and Regulation Policies, 2010).

Municipal Policies / Legislation:

- Region of Peel – Official Plan Consolidation November, 2008
  - Region of Peel Official Plan was approved. The CRPS was developed to conform with the following objectives and policies of the Region of Peel Official Plan:

  Chapter 1 – Section 1.1 – Purpose of the Plan
  - The purpose of this Plan is to:
    - provide *Regional Council* with the long-term regional strategic policy framework for guiding growth and *development* in *Peel* while having regard for *protecting* the environment, managing the renewable and non-renewable resources, and outlining a regional structure that manages this growth within *peel* in the most effective and efficient manner;
    - interpret and apply the intent of Provincial legislation and policies within a Regional context using the authority delegated or assigned to *the Region* from the Province;
    - provide a long-term regional strategic policy framework for the more specific objectives and land use policies contained in the *area municipal official plans* which must conform to this Plan;
    - recognize the duality in *Peel Region* between the urban nature of the Cities of Brampton and Mississauga and the primarily rural nature of the Town of Caledon;
    - recognize the need for effective environmental protection and management measures to ensure environmental sustainability;
    - recognize the importance of *protecting* and enriching the natural and cultural heritage of *Peel Region*;

- provide for the health and safety of those living and working in *Peel*; and
- maintain and enhance the fiscal sustainability of *the Region*.

Chapter 2 – The Natural Environment

- 2.2.10 Greenbelt Plan (Adopted ROPA 24)
- 2.2.10.5.3 Consider, in partnership with the other agencies, opportunities to provide passive outdoor recreational amenities that serve regional needs, including small-scale structures for recreational uses consistent with the requirements of the Greenbelt Plan.
- 2.2.10.5.4b Requirements for the establishment or expansion of major recreational uses.
- 2.2.10.5.6a Planning, design and construction practices shall minimize, wherever possible, the amount of the Greenbelt, and particularly the Natural Heritage System, traversed and/or occupied by such *infrastructure.*
- 2.2.10.5.6b Planning, design and construction practices shall minimize, wherever possible, the *negative impacts* and disturbance of the existing landscape, including, but not limited to, impacts caused by light intrusion, noise and road salt.
- 2.2.10.5.6d New or expanding *infrastructure* shall avoid *key natural heritage features* or *key hydrologic features* unless need has been demonstrated and it has been established that there is no reasonable alternative.
- 2.3 Greenlands System in Peel
- 2.3.2.14 Valley and Stream Corridors
  Support the area municipalities in consultation with the conservation authorities, the Niagara Escarpment Commission, where applicable, and the Ministry of Natural Resources to define the boundaries of the Greenlands System in *Peel* in terms of functions, landforms, attributes, linkages, critical elements, and *rehabilitation* and natural habitat *restoration* opportunities, including the preparation of technical documents.

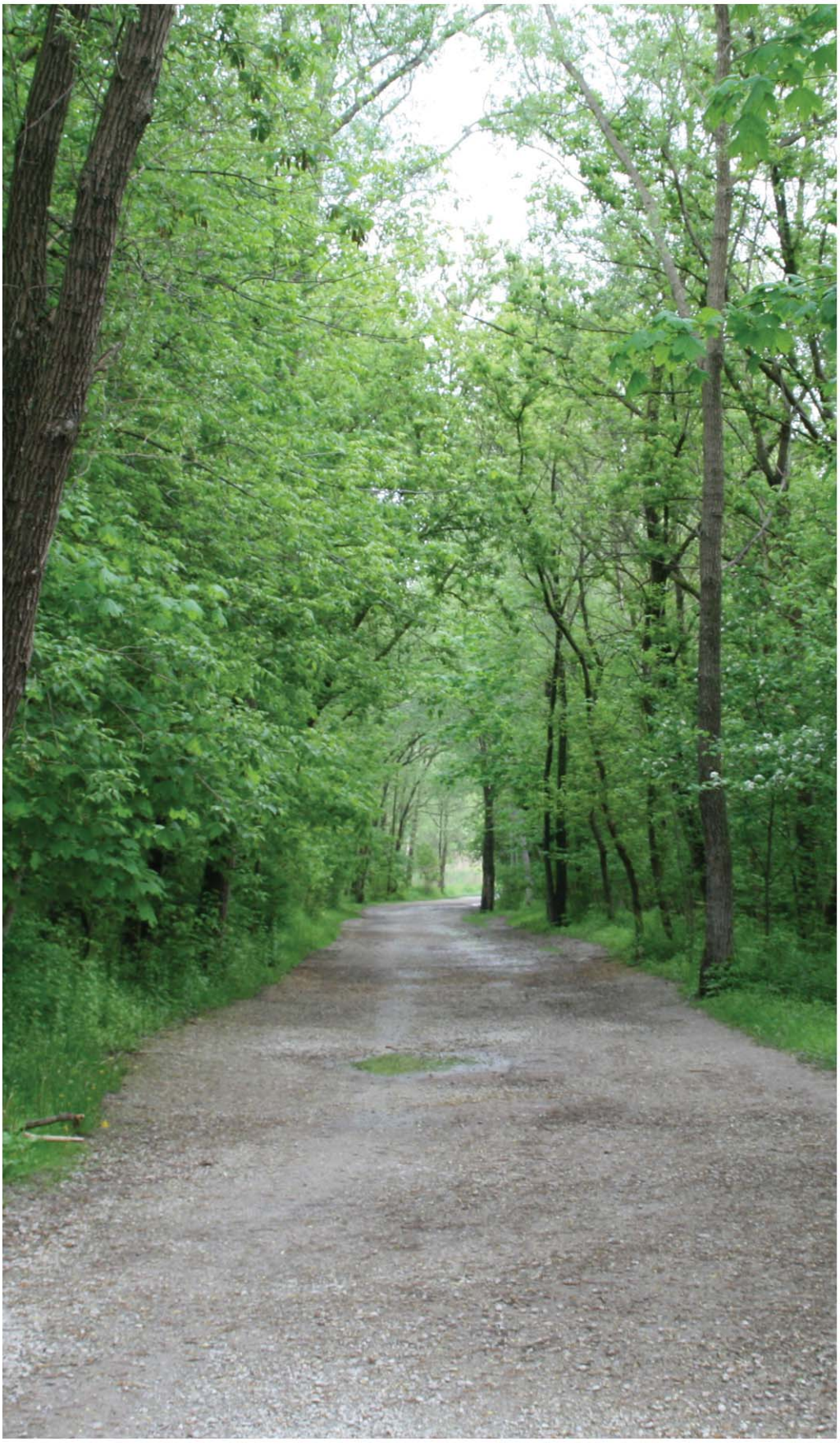
- Region of Peel – Regional Official Plan Amendment – Number 21 (ROPA 21)
  ROPA 21 implements additions and revisions to the natural heritage, agricultural, air quality and integrated waste management policies of the Region of Peel Official Plan.
  - With respect to natural heritage:
    The natural heritage component identifies where mapping and policy updates are required to bring the Plan into conformity with the 2005 Provincial Policy Statement and to update existing policies where new information, mapping data and terminology has identified policy gaps since the Plan was approved and last updated. The key policy gaps include policy and mapping updates for the natural heritage features policies of the Greenlands System including amendments to address policy direction in the PPS for significant woodlands, significant wildlife habitat and significant valleylands.
  - The proposed amendments to achieve provincial conformity and which respond to public comments received during the consultation process address the following policy areas:
    - Mapping updates for Core wetlands, Areas of Natural and Scientific Interest (ANSIs), Environmentally Sensitive or Significant Areas (ESAs) and Escarpment Natural Areas;
    - Significant valleylands;

  - Significant woodlands;
  - Significant wildlife habitat;
  - Greenbelt conformity for natural heritage; and
  - Greenlands management and stewardship.
- With respect to agriculture, the amendment sets out policies that provide a regional role to support the agri-food sector and strengthen stewardship programs to achieve both agricultural and environmental objectives.

- City of Mississauga Official Plan – Draft – March 2010
  - The City of Mississauga Official Plan sets out policies to guide the protection and enhancement of natural heritage and cultural heritage resources and seeks to create vibrant, healthy and complete communities within the City. The policies contained in the following chapters of the City's Official Plan are relevant to the CRPS:
    - Chapter 5 – Value the Environment
      - Protect and enhance Natural Areas System and Green System
      - Enable access to Parks and Open Spaces
      - Preserve the Urban Forest
    - Chapter 6 – Complete Community
      - Protect Cultural Heritage Features and Landscapes including the Credit River itself
      - Support urban agriculture
    - Chapter 7 – Create a Multi-Modal City
      - Support Active Transportation and multi-modal transportation network
    - Chapter 8 – Build a Desirable Urban Form
      - Create and support an accessible city
    - Chapter 19 – Implementation
      - Constraints to development from Greenbelt designation
      - Provide balanced distribution of recreational facilities

- City of Mississauga – Zoning By-Law – as amended
  - The City of Mississauga Zoning By-Law sets out specific policies to guide the protection and enhancement of natural heritage and cultural heritage resources and establish complete communities within the City. The policies contained in the following sections of the City's Zoning By-Law are relevant to the CRPS.
    - Part 2 – General Provisions
    - Part 3 – Parking
    - Part 9 - Open Space Zones (last update June 30, 2010)
    - Part 10 - Greenbelt Zones (last update Dec 31, 2011)
    - Part 11- Parkway Belt Zones (last update Dec 31, 2011)
    - Part 12- Development Zone (D) (last update Mar 31, 2012)
  - The following zones apply to the “Feature Sites”:
    - PB1-11 - Lands in Private Ownership North of Highway #401 (Sanford Farm);
    - A, RR and G – P-505 Former Harris Lands;
    - G-1 – P-122 Credit Meadows;
    - OS-2, G1-14 – P-114 Streetsville;
    - PB1 – P-462 Pinchin Lands;
    - G1, G1-4, 0S2-7 – P-331 Riverwood; and,
    - PB1, G1, G1-14 – P-60 Erindale.
  - The following zones apply to other parts of the study area:
    - PB1-11 – North of Private Lands;

- G1, G1-3, 0S2-5 – Golf Courses;
- G1-13 - Kraft Mill, U – QEW;
- G2-1, G2-2, G2-3 – Edges of study area (Minimum natural protection area depth 5.Om, 10.Om and 15.Om respectively); and,
- D – Development (between Highway #401 and Harris Lands).



2.3

2.3 Supporting Strategies, Plans and Guideline Documents

A number of strategic plans, master plans and guideline documents prepared by the City of Mississauga, Region of Peel and CVC informed the development of the CRPS. A summary of the various supporting documents that were reviewed in the course of preparing the CRPS is provided below.

(i) Region of Peel Significant Wildlife Habitat and Woodlands Study

The report provides a comprehensive analysis of criteria and thresholds for identifying significant woodlands and wildlife habitat in the Region of Peel. The study characterizes the existing woodland cover in the Region and assesses the amount of "interior forest" there is present. The study considers "*all woodlands within 30m of a watercourse or evaluated wetland and equal to or greater than 4ha to be significant.*"

Wildlife habitat is considered significant where it is "*ecologically important in terms of features, functions, representations or amounts and contributing to the quality and diversity of an identifiable geographic area or Natural Heritage System*"

This document was utilized to defining significant woodlands and wildlife habitat in the process of completing the natural heritage assessment component of the CRPS.

(ii) Credit Valley Conservation - Credit River Water Management Strategy (CRWMS)

The study was undertaken to assess the impacts of past and future land use development and climate change scenarios on the health and sustainability of the Credit River Watershed, and to recommend a strategy to minimize or avoid negative environmental impacts in the future.

Key findings of the strategy include:

1. There is a direct link between public well-being and the health of the Credit River watershed;
2. The health of the Credit River Watershed is already at risk;
3. Current planning and development practices will not be sustainable over the long term if watershed goals are to be realized;
4. Growth within the watershed can continue, but only if changes are made in business in the watershed is done; and,
5. There is a limit to growth if watershed goals are to be realized.

The recommended management strategy contained in the CRWMS integrates urban form and stormwater infrastructure to support the hydrologic function of the watershed. This includes minimizing impervious cover by reducing the extent of roads and building footprints, and preserving natural areas. It also includes use of a broad range of stormwater management (SWM) practices to reduce stormwater runoff by treating it at source, infiltrating it into the ground, and ensuring that discharges into streams are clean and at volumes and rates that preserve stream function. The recommended strategy also includes measures designed to improve water quality, reduce erosion and protect fish and other aquatic species.

Best Management Practices recommended in the strategy that were integrated into the CRPS include:

- Source Controls - Downspout disconnection, porous pavement, soakaway pits, biofilters on parking lots, rooftop storage;
- Conveyance Controls - Porous storm sewer pipes, grassy swales;

- End-of-Pipe Controls - Wet and dry stormwater ponds, constructed wetlands;
- Operations & Maintenance - Reduced lawn maintenance, naturalized riparian plantings, water conservation;
- Stream Restoration Measures - to address erosion and flooding problems, naturalization of riparian zones;
- Fish Habitat Enhancement - Stream bank plantings, flow deflectors, habitat creation, boulder placements;
- Terrestrial Habitat Enhancement - Buffers adjacent to sensitive features, wetland restoration, reforestation; and,
- Naturalization.

Recommendations that had implications on the CRPS included the following:

- CVC and its municipal partners should recognize rainwater, groundwater and snowmelt as valuable resources and should manage rain where it falls – on lots, roofs and streets – before it enters sewers and stream;
- CVC and its municipal partners should formally adopt the CRWMS goal, principles, objectives and targets as a basis for future planning and operations;
- CVC and its municipal partners should implement a broad suite of stormwater Sustainable Management Practices across the watershed using a full range of source, conveyance, end-of-pipe controls and restoration measures consistent with the CRMWS; and,
- CVC and its municipal partners should ensure that municipal planning and development policies, guidelines, standards and processes incorporate sustainable SWM practices.

(iii) Credit Valley Conservation – Credit River Adaptive Management Strategy (2005) (CRAMS)

This strategy included an assessment of water quality and erosion along the Credit River in order to identify areas of concern and recommend solutions to mitigate erosion where necessary. The strategy includes recommendations for physical improvements to be implemented within the valley corridor as well as SWM initiatives to moderate discharge rates. Key findings of the CRAMS are described in Section 2.5.9 – Hydrologic Features and the key recommendations in the CRAMS were integrated into the CRPS.

(iv) City of Mississauga – Strategic Plan – Our Future Mississauga (2009)

This document sets out a vision and recommendations to guide the transformation of the City into a sustainable, healthy and vibrant community. The Strategic Plan sets forth the following vision for the future of the City.

"Our Vision of the Future"
Mississauga will inspire the world as a dynamic and beautiful global city for creativity and innovation. With vibrant, safe and connected communities where we celebrate the rich diversity of our cultures, our historic villages, Lake Ontario and the Credit River Valley. A place where people will choose to be."

The vision statement specifically identifies the Credit River Valley as one of the City's defining elements and important assets. In order to achieve this vision, the document sets forth the following specific recommendations:

C *Completing our neighbourhoods*
G *Living green*

(C4): Capitalize on the Credit River to Foster All-Season Activities
(C45): Establish a "Central Park" in our Downtown
(CII): Celebrate the Heritage of the Credit River
(CI4): Create More Bike-Friendly Facilities
(G4): Plant One Million Trees in Mississauga
(G4): Acquire and/or Enhance Land along the Waterfront and in Natural Areas for Recreational and Ecological Value

The CRPS builds on these recommendations to achieve consistency with this vision for the future of the City.

(v) City of Mississauga – Future Directions

"Future Directions" was developed to set out a vision and guiding principles to direct the development, use and management of the park system within the City of Mississauga. The document identifies natural areas, greenways and trails as integral components of the park system. The master plan states that "Natural features and their functions are protected, restored and enhanced for ecological health and the benefit of future generations" as a component of the overall vision for the parks system. The document sets out the following principles related to the following as the basis for the future development and management of parks and natural areas:

- Environmental sustainability;
- Promoting quality of life;
- Supporting community connections;
- Quality and innovation in design; and,
- Responsible management.

Many of the recommendations set out in "Future Directions" relate to the Credit River and the natural and cultural heritage features associated with it, providing guidance to direct the protection and enhancement of ecosystems, sustainability and appropriate management and use with an emphasis on achieving harmony between recreational use and the natural environment.

The document sets out three classifications for parkland and open space including destination park, community park and greenbelt, and promotes planning for a range of public spaces within these classifications.

"Future Directions" recommends that park programming demonstrate the City's commitment to conservation, sustainability, community gardens, environmental protection, restoration, stewardship and heritage protection, all of which are consistent with the findings of the CRPS community engagement program.

The master plan promotes the implementation of sustainable management practices including the implementation of naturalization initiatives.

"Future Directions" recommends the acquisition of lands that support and bolster the Natural Areas System and places priority as significant natural areas and lands with the potential to infill gaps in the NAS.

The document identifies Riverwood as a showcase park within the potential to encourage visitation to the City to support tourism. Within the document, the Credit River is identified as one of the City's main valleyland features that contributes

significantly to the Natural Areas System. The document recommends that efforts to designate the Credit River as a Canadian Heritage River System be continued.

Specific recommendations related to natural heritage protection, cultural heritage preservations, recreation, tourism and sustainability guided the development of the CRPS.

(vi) City of Mississauga – Downtown 21 Master Plan (2010)

Downtown 21 is designed to promote the continued evolution of a livable, compact, accessible, sustainable downtown centre for the entire City which will enhance Mississauga's competitive advantage and reputation as a forward-looking community based on 6 principles:

1. Catalyze employment
2. Build multi-modal;
3. Create an urban place;
4. Living green;
5. Establish a focus; and,
6. Develop a framework of Predictability.

The Downtown 21 Master Plan envisions a grand and extensive system of parks and open spaces that builds upon existing parks and open spaces, adds new urban parks and plazas and connects the downtown to adjacent greenways, natural systems and neighbourhoods. The open space system is to be interconnected by a network of pedestrian and bicycle-friendly streets. The Downtown 21 Master Plan promotes positioning Riverwood as a "Central Park" in the city.

With the implementation of the Downtown 21 Master Plan Mississauga could ultimately see over 70,000 new residents and 70,000 new jobs in the area. The increased local population will result in an increase in the need for recreational amenities and the development of an integrated trail system.

(vii) City of Mississauga – Arts and Culture Master Plan (2009)

Key cultural issues identified in the Arts and Culture Master Plan that relate to the CRPS include the following:

- There are approximately 1,000 cultural facilities and sites in Mississauga;
- There appears to be no rationale for cultural facility distribution overall within the city;
- There appears to be no rationale for how cultural resources might be deployed in individual neighbourhoods;
- Cultural facilities in Mississauga have no communications platform;
- There is a general lack of awareness in the community of spaces available for cultural activity; and,
- Mississauga has strengths in festivals and events and there is strong potential to leverage these strengths to support broader cultural development goals, a shared identity and internal tourism attractions.

Key heritage issues that may relate to the CRPS include:

- There are over 270 designated properties in Mississauga Heritage Conservation Districts;
- A significant number of designated buildings owned by the City stand empty and their condition is deteriorating;
- Opportunities for growth in promotion:
  - Mosaic festival and south Asian celebration of history and culture; and,

- My Mississauga summer festival.

- The highest concentrations of cultural resources in the city are in Mississauga's downtown, Port Credit and Streetsville; and,
- There are four community and city-owned museums operating in Mississauga.

The Master Plan sets out the following recommendations that relate to the CRPS:

2. Encourage community celebrations and festivals;
3. Work with Recreation and Parks to develop a strategy that identifies and assesses the contribution that celebrations and festivals can make to cultural development, tourism, identity and economic development in Mississauga; and,
6. Identify cultural nodes and create an artful public realm
    - Remove systemic barriers to cultural activity and incorporate the specific needs of cultural activities and facilities into the City's zoning, parking and signage regulations; and,
    - Create an Artful Public Realm by involving artists in the early stages of design for public works projects.

Art is already a prominent program element in Riverwood. There is potential to build on this precedent to implement the recommendations of the Arts and Culture Master Plan as an integral component of the CRPS.

(viii) City of Mississauga – Waterfront Parks Strategy (2008)

The Mississauga Waterfront Parks Strategy is a comprehensive long term plan to manage the future development of the City's Waterfront Parks.

The Vision Statement for Waterfront Parks Strategy is expressed as:

- **Embrace** the spirit of the lake and the river at the point where land and water unites;
- **Identify** the place where the natural and urban environments connect with locations for rest and relaxation for all;
- **Educate** with the knowledge gained from experiencing the Waterfront Parks and demonstrate how to lead by example; and,
- **Connect** the physical, natural, cultural and emotional elements of the parks to the community, the environment and to the passage of time.

The Principles that were set out to achieve this Vision include the following:

- **Environment First** - Protection, preservation and restoration of existing natural systems (including air, land, water, terrestrial, aquatic, animal and plant life) will be prioritized and balanced to direct and guide the planning of existing and future waterfront activities. The natural environment along Mississauga's waterfront is a significant local, City-wide, regional and provincial asset. Educational and interpretive elements must be incorporated into the parks to create awareness of the waterfront's diverse natural systems. Park landscapes will be managed to promote environmental;
- **Finding a Balance** - There will be a balance of park areas expansion and natural area preservation, providing a diverse range of opportunities and programs for residents, workers, students, visitors and the community at large while determining what is appropriate for the natural environment;
- **Sustainability** - To achieve a truly sustainable parks system the limits of the natural environment must be balanced with the desires of the public. This

also includes balancing the needs of the natural environment with those of society, culture and economics;

- Vibrant Place - Mississauga's waterfront will be a year-round destination that provides passive and active activities built on the strength of the waterfront location;
- Design Innovation and Excellence - The Waterfront Parks will incorporate meaningful design of a high quality at the best value;
- Safe, Secure and Accessible - The physical environment will be designed to foster comfort and safety and will accommodate people of all abilities and ages; and,
- Park as a Good Neighbour - Mississauga's Waterfront Parks and trails are part of a public park system that aims to provide access to the waterfront for all.

The Strategy provides for the establishment of an Urban Waterfront Centre as described below:

- Proposed Vision and Summary of Existing Conditions and Park Activities:
  - The Urban Waterfront Centre is located in downtown Port Credit at the mouth of the Credit River and is bisected by Lakeshore Road. Within this area there are 7 parks including Tall Oaks Park, St. Lawrence Park, J.J. Plaus Park, Port Credit Memorial Park (east and west), Marina Park, J.C. Saddington Park and the Imperial Oil Waterfront Trail Extension. Each of these parks plays an important function in the Waterfront Parks System. Whether providing a festival ground for summer event or a pleasant park oasis in the busy downtown, the parks in the urban waterfront centre form the core of the Waterfront Parks System. The parks collectively form a continuous open space along that water's edge that makes the lake and the river accessible and open to the community. The vision for these parks is built on the urban and active commercial nature of the Port Credit Village which will ensure that the parks are within close proximity to residents and will evolve as year round destinations.
- Park Use and Activity - Summary of Existing Conditions:
  - Currently, parks in the Urban Waterfront Centre are well-used by the public. The many waterfront uses within the mouth of the Credit River area create the potential for conflicts between non-complementary activities; pedestrians, cyclists, vehicles, motor boating, boat launching, charter boats, fishing, canoeing and kayaking all occupy the same general area. The concentration of parks along the water's edge provides for large festival areas that are also integrated into the Village Retail Core. Festivals, like the South Side Shuffle and the Waterfront Festival, are regular summer events. Due to the diversity of existing park programming and the multitude of potential activities, this area is often densely populated with residents and tourists. New programming for this area should build on the existing urban context, respecting the historical context of the area and better coordinating existing uses. The City should investigate the potential for public-private partnerships to enhance the existing parks system.
- Urban Waterfront Centre Park Strategy Recommendations:
  - These parks already have a clear role as urban area parks for the Port Credit area. Park users include local and community residents but also draw visitors from outside the City.
    - Relocate parking areas and explore local sites that can potentially begin as surface parking areas and eventually evolve into structured

parking in association with other forms of development along Lakeshore Road;
- A dedicated location is recommended for fishing at the mouth of the Credit River; and,
- Linking the Waterfront Park System to the Credit River valley is important to enhance to overall connectivity of the parks and open space system in Mississauga.

(ix) City of Mississauga – Accessibility Plan (2008)

The Accessibility Plan acknowledges that although the CRP System cannot be accessible as a whole, a portion of each site connected from parking areas to destinations should be accessible. Recommendations are provided to enhance accessibility through wayfinding and new technologies.

Strategic directions as set out in the plan include:
- Leading by Example – Set the bar above the minimum standard;
- Allocation of Resources – integral to budgets;
- Communication Strategy – education and continued campaigns;
- Providing Training – sensitivity training;
- Hiring Resource Experts – to assist in facility/program design; and,
- Using Skills in the Disabled Community.

Recommended initiatives that apply to the CRPS include:
- Providing effective guidelines to address physical barriers in facilities/infrastructure;
- Budgeting for projects including barrier removal;
- Providing ability to assess and compare appropriate and inappropriate physical examples;
- Understanding proactive, research based response to special needs in programs;
- Integrating the needs of the disabled community with the rest of the community; and,
- Setting up a long-range approach to addressing needs.

(x) City of Mississauga – Youth Plan (2009)

The Youth Plan embodies the following recommendation in the Future Directions document: *"the Youth Strategy should identify issues related to the recreational and social support needs of Mississauga teens and how these needs can be addressed through City programs, facilities and services."*

The Youth Plan:
- Identifies initiatives that will reach all sectors, interests and population demographics;
- Addresses the matter of municipal service/program affordability for youth;
- Establishes a model/structure for ongoing involvement and engagement of youth;
- Addresses emerging needs and interests of youth, resulting in increased physical activity, leadership training and opportunities for volunteerism; and,
- Identifies partnership and collaboration opportunities to reduce overall cost of implementation, program and/or service delivery and expected outcomes.

Components of the Youth Plan that are pertinent to CRPS include the following:

- All youth have the opportunity to be active in diverse programs, utilize public spaces and develop skills;
- The contribution of young people in program development and public policy is valued and reflective of the diverse youth population; and,
- Building and leveraging capacity of youth.

Specific recommendations include the following:

11. Develop an awareness campaign to encourage young people to volunteer in civic and community based programs and activities;
12. Explore feasibility of additional facilities; and,
44. Investigate the feasibility of developing and sustaining "youth spaces" in the community with community partners based on community need.

The CRPS presents opportunities to implement these recommendations.

(xi) City of Mississauga – Older Adult Plan (2008)

The Older Adult Plan will assist staff, decision-makers, stakeholders and the general public in determining needs and priorities related to older adults in the City of Mississauga. The Plan has been designed to respond to the dynamic environments within which each Department within the City operates. The Plan reconciles the needs and perceptions of the public with the realities of implementation.

Vision: *As an age friendly city, older adults in Mississauga will lead purposeful and active lives, will live in their community with dignity, integrity and independence, and will experience a diverse range of lifestyle opportunities to pursue their personal interests.*

The plan promotes the creation of hubs of activity and emphasizes accessibility independence and dignity.

One goal of the plan is to provide a range of facilities that will be available to support opportunities for physical activity, learning and social interaction.

A second goal that is relevant to the CRPS provides that establishment of outdoor environments that will be developed using universal accessibility principles, to the greatest extent possible, without future need for adaptation or specialized design, in programming leaning activities, consideration will be given to all types of physical, social, cultural, and mental conditions, including loss of hearing and eyesight, language, immobility and dementia.

Key principles of the plan include:

- *Support individual Needs and Interests of Older Adults* – programming will meet the needs of the various segments of the older adult population;
- *Traveling Within Mississauga is Possible for All* – Wayfinding techniques will be utilized to ensure that local roads, sidewalks, trails and paths are older adult friendly. Position transit stops near destinations;
- *Active Living and Lifelong Learning Enhance Older Adults' Quality of Life* – A range of parks, trails, and facilities will be available to support opportunities for physical activity, learning and social interaction;
- *Older Adults are "In the Know"* – Access to City services and information will be maximized at all City facilities; and,
- *Public Spaces, Places and Programs are Age-Friendly* – Amenities, facilities and outdoor environments will be developed using universal design

principles, and to the greatest extent possible, without future need for adaptation or specialized design. In programming leisure activities, consideration will be given to all types of physical, social, cultural, and mental conditions, including loss of hearing and eyesight, language, immobility, and dementia.

(xii) City of Mississauga – Outdoor Utilization Study (2008

The utilization data provided by the City was synthesized with information gained from site review and considered when developing recommendations in Part 3 – The Strategy.

(xiii) City of Mississauga – Community Uses Study (2008)

The purpose of the study was to conduct a comprehensive review of community uses in order to provide clarification and direction in relation to community use policies. This study lays out policy options for *Mississauga Plan* to address issues that have arisen because of changes over time that have occurred in the types, locations and interrelationships between community uses. This report was reviewed but did not have specific implications on the development of the CRPS.

(xiv) City of Mississauga – Living Green Master Plan (2011)

The Living Green Master Plan was developed to:

- Identify priority environmental actions;
- Instill environmental consciousness in the corporate DNA;
- Measure the City's environmental performance; and,
- Ensure residents, community groups and business have the information they need to "live green" in their homes and communities.

The goals of the Master Plan include:

- Implement the Strategic Plan vision;
- Choose priorities and allocate resources;
- Support better integration among City departments on matters related to the environment;
- Develop baseline information, targets and indicators to measure success;
- Provide education and raise public awareness to help residents be green where they live and work; and,
- Foster partnerships and collaboration.

Recommendations of the master plan that are relevant to the CRPS include the following:

- Action 4: Invest in the expansion of alternative forms of transportation, including cycling, walking and car-sharing;
- Action 6: Develop guidelines that advance new or rehabilitated transportation infrastructure that supports natural ecological functions;
- Action 30: Support the development of community gardens and ensure that every neighbourhood has access to at (east one community garden; and,
- Action 47: Consider introducing a regulatory tool to protect and enhance the green system.

The Living Green Master Plan sets out the following priorities that were relevant to the CRPS:

- 1. Build on Environmental Success
  - Mississauga is on the right track and must continue to:

  - Expand the public transit system and alternative forms of transportation;
  - Promote green development standards;
  - Expand the natural areas system and protect the urban forest;
  - Expand flood management plans;
  - Upgrade stormwater quality and develop green infrastructure;
  - Green its municipal facilities (energy efficiency, waste reduction and water conservation); and
  - Implement environment policies contained in its new Official Plan.

- 6. Build Partnerships and Collaborations
  - To reach outside the corporation and connect with residents, environmental and community groups, agencies, NGOs and the business sector, implement:
    - An environmental grant program;
    - An Air Quality Management Partnership;
    - A Sustainable Neighbourhood Retrofit Action Plan;
    - An Environmental Design Award; and,
    - Collaboration on Climate Change Adaption.

(xv) City of Mississauga – Cycling Master Plan (2010)

The Cycling Master Plan sets out a strategy to guide the development of over 900km of cycling routes throughout the city over the next 20 years. The plan is focused on fostering:

- Cycling as a way of life in the city;
- Building an integrated network of cycling routes; and,
- Adopting a "safety first" approach to cycling.

The vision for the plan is stated as:

> *"Cycling will become a way of life in the City of Mississauga that supports vibrant, safe and connected communities. Mississauga will be a place where people choose to cycle for recreation, fitness and daily transportation needs enhancing our overall health and quality of life."*

The existing Culham Trail within the Credit River Valley is identified as a key component of the cycling network. The Cycling Master Plan informs the location of cycling routes within the study area and key linkages to cycling routes external to the CRPS study area in order to assist in achieving this vision.

(xvi) City of Mississauga – Natural Areas Survey (2008-2012)

The intent of the Natural Areas Survey is to review the current status of natural areas and update information on floristics, fauna, impacts, boundary changes and management needs on a yearly basis. The importance of the Natural Areas Survey is that it serves to identify natural areas in the City that should be protected. However, the NAS also serves to document changes to natural areas over time and thus provides the means to assess the cumulative impacts of development, the efficacy of mitigation measures and to identify those natural areas that are most at risk.

The Natural Areas Survey considers natural areas as those that contain Significant Natural Sites, Natural Sites, or Natural Green Spaces. Every four years all natural areas are reviewed at least once and with the completion of the 2010 work, the natural features in all Wards in the City had been updated three times since the initial study in 1996. Natural areas in various Wards were updated since 2008 as follows:

- Wards 1 and 2 (2008);

- Wards 3, 4, and 7 (2009);
- Wards 8, 9, and 10 (2010); and,
- Wards 5, 6, and 11 (2011).

Findings of 2008 Update

54 natural areas are included in the study containing 54 vegetation communities. The 2008 Natural Areas Survey update for the City of Mississauga identified a reduction in natural areas from 141 sites from 1996 to 138. In 2008, 80.11% of the natural areas were associated with valleylands which contain 10 vegetation communities and represent 4,20% of the total City area. Natural areas system associated with wetlands has declined slightly from 5.0% in 1996 to 4.78% in 2008

Findings of 2009 Update

29 natural areas are included in the study. The 2010 Natural Areas Survey update for the City of Mississauga identified 138 natural areas consistent with 2008. However, as a result of boundary revisions due to property boundary adjustments or minor changes in natural area boundaries have resulted in an overall increase of 14.16 ha since 1996. Almost all of this increase was composed of valleylands. There has also a reduction in the number of Special Management Areas and Linkages from 55 to 42 and 40 to 29, respectively. The relationship of Natural Areas, Special Management Areas and Linkages from the 2009 update are provided on Page 34.

The natural areas in the City have been grouped into three major landform types (valleyland, tableland, and wetland). In 2006, 80.11% of the natural areas were associated with valleylands and this has increased slightly to 80.21% in 2009. Of the natural areas reviewed, three were valleyland communities, 5 wetland communities and one 'at risk' community. Three communities were considered 'uncommon' in the City.

Generally, the condition of natural areas within the City that were surveyed in 2009 continues to be fair and remained largely unchanged from previous studies. The most common disturbances within natural areas are those associated with an increase in uncontrolled human use of natural areas. Over ten years of updates to the NAS two trends have emerged: there has been a decrease in the quality of vegetation and there has been a decrease in the amount of tableland habitats (woodland and successional categories). The proportion of natural areas associated with wetlands has remained more or less constant from 1996 with only a slight decrease from 5.0% to 4.75% in 2009. However, one positive trend is the naturalization projects undertaken by the City.

Findings of 2010 Update

36 natural areas are included in this study. The 2010 Natural Areas Survey update identified a reduction in natural areas from 138 sites in 2009 to 137. However, with increases in natural areas in 2009 and 2010 the overall area of natural areas in the natural areas system was 17.46 ha larger even in consideration of development in Wards 8, 9, and 10 that had resulted in the loss of 0.7 ha in 2010. The size of the natural areas in the valleylands remained the same from 2009 – 2010. The proportion of natural areas associated with wetlands has remained more or less constant from 2009 with only a slight decrease from 4.75% to 4.60% in 2010.

Much of this increase was composed of valleylands, and some associated tablelands. A total of 33 vegetation communities are uncommon in the City, occupying less than 1% of the total area of the natural areas system. Of these, ten

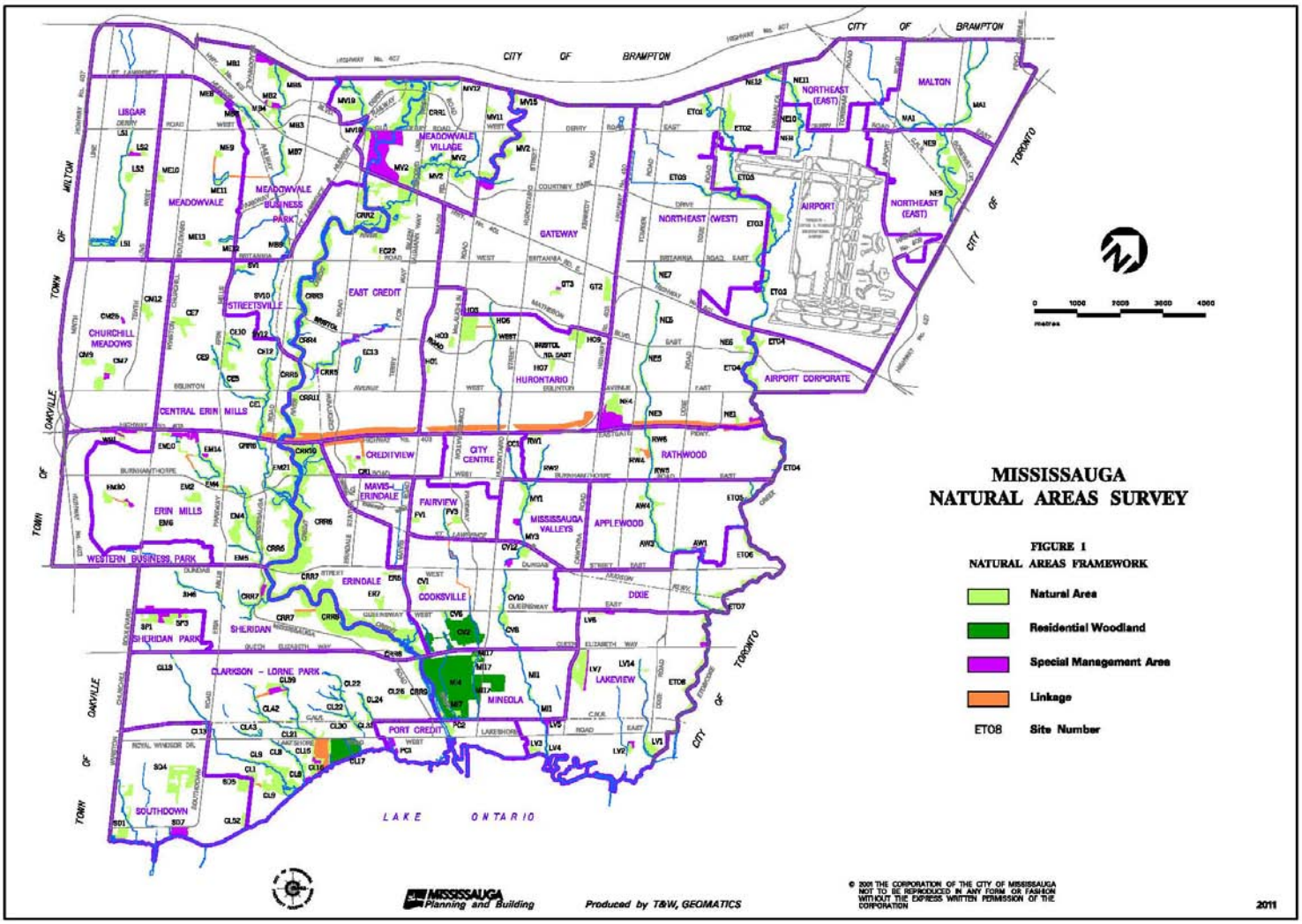
communities are "at risk" in the City, A positive trend remains to be the increase in naturalization projects undertaken by the City.

Findings of 2011 Update

40 natural areas are included in this study. The 2010 Natural Areas Survey update identified 137 natural areas consistent with 2010. However, with refinements in natural area boundaries 2010 the overall area of natural areas increased 22.34 ha within the natural areas system since 2010. The size of the natural areas in the valleylands remained more or less the same from 2010 – 2011. The proportion of natural areas associated with wetlands has remained more or less constant from 2010.

The 2011 Natural Areas Survey Plan (as approved by the City) is provided below.

The 2012 NAS update is currently in draft form but has not yet been reviewed or approved by the City.



Additions to the NAS (2008-2011)

Summary of proposed additions to the NAS as recommended from the 2008-2011 studies for sites within the CRPS study area:

Natural Area	NAS Category	Year Proposed	Potential Addition
CRR4 CRR4ADD17	Significant Natural Site	2008	Continuous habitat similar to existing natural area. Sugar maple forest along creek corridor – drains into Credit River.
CRR1 CRR1ADD20	Natural Area	2008	Significant Natural Site
CRR5 CRR5ADD4	Special Management Area	2008	
MV2 MV2ADD2 MV2ADD4 MV2ADD5 MV2ADD6 MV2ADD7 MV2ADD8 MV2ADD9 MV2ADD10	Natural Area	2008	Natural Green Space
CRR7 LINK 21	Linkage	2009	Extension of current linkage towards the west to link two lower portions of CRR7.
CRR8 CRR8SMA	Special Management Area	2009	Additional habitat for species utilizing the Credit River corridor. Evidence of ad-hoc paths.
CRR11 PADD10SMA	Special Management Area	2010	Provides additional buffer area to the Credit River and with management and restoration, would add to interior habitat in CRR11.

CRR2 PA21SMA PA22SMA PA23SMA PA24SMA PA26SMA PA27SMA	Special Management Area	2011	Six old fields which could be re-generated into large meadows and/or planted with trees to provide buffer to the CRR2 forests adjacent. Also includes one cultural meadow along Creditview Road which provides buffer to the Credit River. With management the area could provide greater function for wildlife.
CRR2 PA25CUM1-1 /CUW1 PA29CUM1-1	Special Management Area	2011	Provides a linkage and buffer to natural features within the CRR2 natural area.
CRR1 PA28SMA	Special Management Area	2011	Pond has potential for amphibian breeding habitat. Area also provides linkage function between CRR1 and MV12. With management, this pond could be further naturalized; increasing function for wildlife habitat. Cultural meadow around SWM pond.

2.4

Source: http://www.topix.com/album/detail/ca/mississauga-on/LPIK9IJE16I8QESG

2.4 Fundamental Policy Directions

Based upon the review of the various policy documents described in the Appendix D, a suite of fundamental policy directions was identified. The policy framework served not only to provide guidance in the process of generating the CRPS but also as a tool to confirm the conformity of the CRPS with the policies of federal, provincial and municipal governments.

The Credit River valley is identified as an "External Connector" in the Greenbelt Plan (2005) promoting the protection and enhancement of natural heritage features and functions and the mitigation of potential impacts associated with urban run-off. Both Region of Peel and City of Mississauga Official Plans (including Regional Official Plan Amendment 21 (B)) emphasize the protection and enhancement of natural heritage features and functions as well as the restoration of natural areas as central themes.

Fundamental Policy Directions

Natural Heritage

- Protect enhance natural heritage features and functions;
- Protect enhance aquatic habitat;
- Restore natural areas;
- Enhance connectivity;
- Protect habitat for SAR and endangered species;
- Enhance canopy cover;
- Manage invasive species; and,
- Secure lands in public ownership to protect features and enhance connectivity.

Cultural Heritage / Archaeology

- Protect, enhance celebrate cultural heritage features and landscape.

Transportation

- Provide a transit supportive multi-modal transportation system; and,
- Maintain navigation within Credit River.

Water Resources

- Protect enhance surface and groundwater quality;
- Manage storm water quantity; and,
- Mitigate impacts of urban run-off.

Natural Hazards

- Focus development/ site alteration away from hazard lands and floodways (except in SPA areas).

Community

- Support healthy, active living;
- Provide cultural, social and recreational amenities; and,
- Accommodate all members of the community.

Sustainability

- Improve sustainable building development solutions;
- Ensure financial sustainability; and,
- Implement sustainable management practices.

Public Safety

- Ensure public safety through hazard avoidance and application of Crime Prevention through Environmental Design (CPTED) principles.

A catalogue of the policies with implication for the CRPS is provided in Appendix D.

2.5

2.5.1	Definition of Study Area and "Feature Sites"
2.5.2	General Description of Study Area
2.5.3	Study Area Context
2.5.3.1	Credit River Watershed
2.5.4	Landscape Context
2.5.4.1	Existing Land Uses
2.5.5	Open Space System
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2.5.7	Land Management
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2.5.8	Natural Heritage Assessment
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2.5.8.3	Natural Heritage Features Mapping
2.5.8.4	Intent of the Sensitivity Analysis
2.5.8.5	Findings
2.5.8.6	Integration with CVC Classification System
2.5.8.7	Landscape Management Issues
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2.5.8.10	Cultural Landscape
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2.5.9.4	Bluffs, Erosion Sites and Control Measures
2.5.9.5	Ice Conditions
2.5.9.6	Riverine Structures
2.5.9.7	SWM Facilities/ Outfalls
2.5.9.8	Proposed Stormwater & Erosion Control Facilities
2.5.10	Transportation and Transit Context
2.5.10.1	Transit Network – Regional and Local
2.5.10.2	Cycling Network
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2.5.10.5	Railway Network
2.5.11	Service and Infrastructure Context
2.5.11.1	Hydro Transmission Network
2.5.11.2	Natural Gas Distribution Network
2.5.11.3	Oil Pipeline Network
2.5.11.4	Cellular Communications Infrastructure
2.5.11.5	Sanitary Sewer Network
2.5.11.6	Former Landfill Sites
2.5.12	Visual Resources
2.5.12.1	Views and Vistas
2.5.12.2	Landmarks and Visual Features

2.5 Study Area Characterization

This section of the document provides a description of the study area and its context. The natural heritage and cultural heritage attributes of the study area are described and the context of the site within the local transportation, transit and trail networks and infrastructure systems is discussed.

2.5.1 Definition of Study Area and "Feature Sites"

The study area encompasses the Credit River valleylands extending from the Canadian Pacific Railway Bridge at Port Credit (south boundary) to Highway #407 at the Brampton-Mississauga border (north boundary). One of the most important factors in determining the study area was the City's Natural Areas System, as defined in the Official Plan; and information from the Natural Areas Survey annual updates.

The limits of the study area as illustrated on Figure 2.2 were defined by the City of Mississauga and was determined to be the greater of the following features and/or policy limits within the valley corridor:

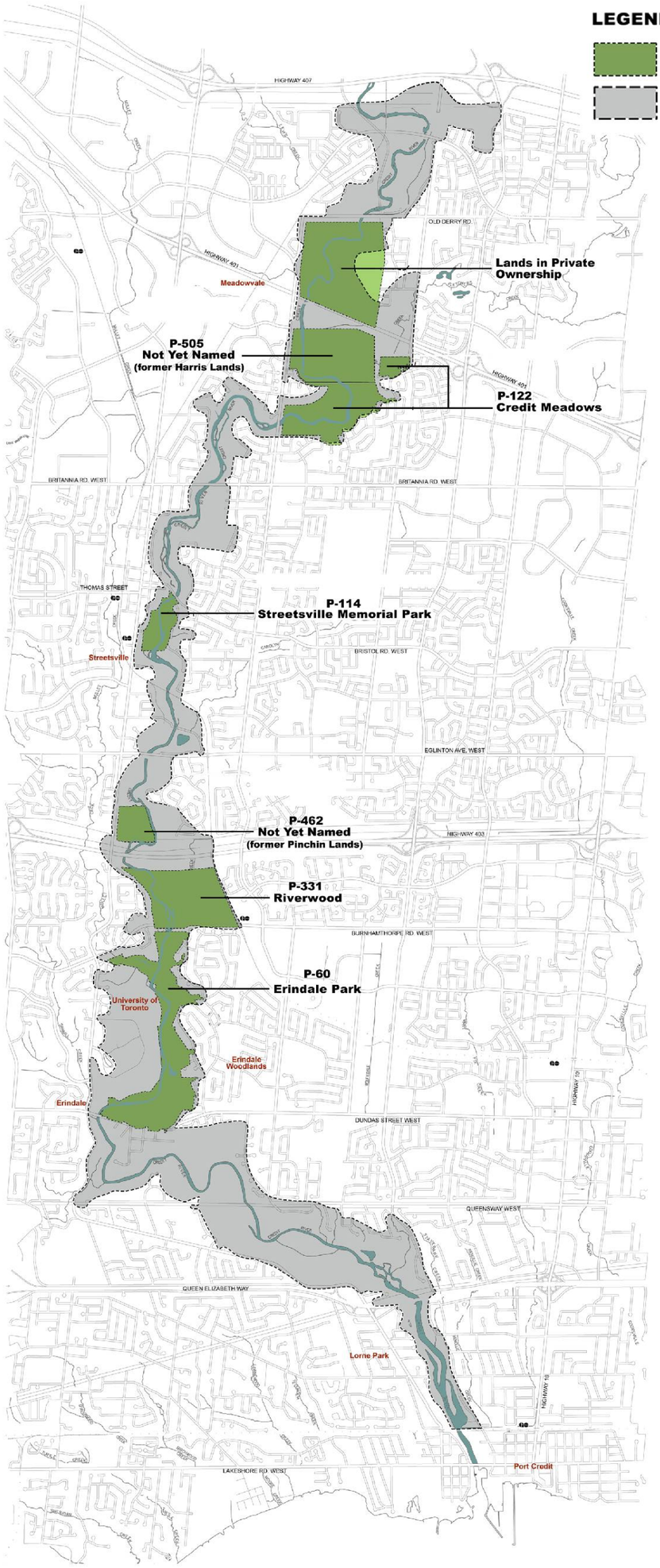
- All natural area boundaries within Mississauga's NAS;
- Buffers to existing natural features;
- Regional Woodlands – within the study area and those contiguous beyond the boundary in some cases;
- A setback into residential areas – generally one lot depth;
- CVC Regulated Area (pursuant to Ontario Regulation 160/06);
- Other biophysical factors such as topography, hydrology and soils;
- All bridges, roads and infrastructure crossing the corridor;
- Land use designations;
- Landownership boundaries;
- Areas/features of cultural interest;
- Areas containing known archaeology (as per Ministry of Tourism, Culture and Sport; and,
- Areas of archaeological potential (lands within 300m of the centre of the river).

The study area included seven individual "Feature Sites" of varying sizes including the following:

- Lands in Private Ownership north of Highway #401;
- P-505: Not Yet Named (Sanford Farm);
- P-122: Credit Meadows;
- P-114: Streetsville Memorial;
- P-462: Not Yet Named (former Pinchin Lands);
- P-331: Riverwood; and,
- P-60: Erindale Park.

Prior to initiation of the study, seven "Feature Sites" were selected based upon size, location along the river corridor, relation to surrounding neighbourhoods, proximity to known cultural and natural features, and potential to accommodate unique programs and amenities that would strengthen the diversity of the parks system. Some of the "Feature Sites" are long established parks that support existing activities and programs (Riverwood, Streetsville Memorial Park and Erindale Park) whereas others are largely undeveloped (the former Harris and Pinchin properties and Credit Meadows Park). The "Feature Sites" hold the potential to become important nodes along the valley corridor, offering opportunities for access to the river and an experience of the natural and cultural attributes of the study area.

Study Area



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NORTH

0 0.5 1.0 1.5 2.0 2.5km

credit river parks strategy

Figure 2.2: Study Area

2.5.2 General Description of Study Area

The Credit River stretches over 90km from its headwaters in Orangeville and Alton to Lake Ontario. The CRPS study area encompasses over 27km of the river and surrounding valley corridor as it meanders through Mississauga to its confluence with Lake Ontario at Port Credit. Prominent characteristics of the CRPS study area are described below.

Recreation:

- Comprised of 41 parks constituting 650 ha (1600 ac) of open space;
- Constitutes 20% of total City parkland;
- Includes 27km existing trails; and,
- Supports a world-class salmon fishery.

Cultural Heritage:

- Central to the history and civic identity of the city;
- Continuously occupied by First Nations peoples for over 10,000 years;
- Encompasses 21 archeological sites;
- Provided a constant source of food, water, building materials transportation and energy;
- Supported transportation and industry;
- Served as the foundation for the communities of Port Credit, Erindale, Streetsville and Meadowvale ; and,
- Includes 87 former mill and dam sites.

Natural Heritage:

- Located at the northern limit of the Carolinian Forest Zone;
- Includes 17 contiguous natural areas with connections to 10 watersheds;
- Encompasses 2714 identified flora, 832 identified fauna and 127 locally rare species;
- Supports 7 Provincially rare species and numerous SAR;
- Serves as a major migratory corridor for birds and mammals; and,
- Sustains a productive and healthy habitat for Salmon, Trout, Smallmouth Bass and a variety of other fish species.

2.5.3 Study Area Context

The study area is located within the Credit River watershed and encompasses natural areas, parks, agricultural lands and active recreational amenities. The study area transects the City on a north to south axis.

2.5.3.1 Credit River Watershed

The Credit River watershed has a drainage area of 850km^2. Over 80% of the watershed is located upstream of the City of Mississauga. Of the 16 centres of development within the watershed, Brampton and Mississauga are the largest. The majority of the agricultural land within the Credit River watershed is located upstream of Mississauga.

The Credit River through Mississauga is considered to be a modified system. Upstream of Highway #401 the river flows in a broad, flat floodplain and has a moderate slope. The river is free to meander across its floodplain but is constrained in a few locations by engineered structures such as bridges and revetments.

Downstream of the Queen Elizabeth Way (QEW), the river becomes broad and flat and the valley slopes decrease to the point where Lake Ontario backwaters to create a marsh. This area is lined with residential properties with docks and manicured areas that extend to the water's edge. This lower reach of the river is subject to the influence of changing Lake Ontario water levels and consequently alternates between periods of erosion and deposition. The marsh is generally a settling basin for the sediment and debris that originate upstream.

2.5.4 Landscape Overview

The findings of the landscape assessment for the study are documented in Figures 2.22A-N and photographs are included in Figures 2.23A and B. The findings of the landscape assessments for the seven "Feature Sites" are located in Section 2.6.

In the vicinity of the downstream limit of the study area, the Credit River valley is characterized as a steep-sided feature with a broad, flat floodplain. At this location, the river transitions to a braided system comprised of multiple channels and wetlands. The valley walls are well-forested with native hardwoods. The river valley is traversed by the QEW. Exceptional views over the river are afforded from the highway bridge. The QEW bridge that traverses the river is an elegant structure comprised of a series of arches that was originally constructed in 1934 and widened in 1960.

Downstream of the QEW, both sides of the valley are flanked by private residential properties. The Credit River within this segment is navigable by small water craft and several residences have docks that are located along the banks of the river. Public access to this area is limited by private land ownership and, immediately south of the QEW, topographic constraints in the form of steep eroding bluffs. Water levels within this reach of the Credit River are influenced by fluctuations in lake levels in Lake Ontario.

Upstream of the QEW, the valley retains this characteristic form however the natural vegetation within the floodplain gives way to the maintained landscapes associated with the Mississaugua and Credit Valley Golf and Country Clubs.

Dundas Street West traverses the valley north of the Credit Valley Golf and Country Club property. Views upstream and downstream are afforded from the bridge.

Erindale Park is located north of Dundas Street West. Erindale Park is the City's largest park and includes facilities for picnicking and events. The park is a popular angling destination. The David J. Culham Trail (herein referred to as the "Culham Trail") starts in Erindale Park and extends northward through the valley. Within this area, the valley remains a steep-sided feature with a broad floodplain that is maintained for parkland uses. Remnants of the former hydro-electric dam and landfill site are evident. The University of Toronto Mississauga (UTM) campus is located on the west side of the

Informal connection to UTM campus

valley. Along its length, the campus is isolated from the river valley by a fence. Breaks in the fence (as shown in the photograph) suggest that there is a desire for connectivity to established trails in the valley.

The Burnhamthorpe Road bridge traverses the valley north of Erindale Park. This monumental bridge incorporates viewing areas that afford dramatic vistas over the valley in both the upstream and downstream directions. The west side of the valley is not accessible from Burnhamthorpe Road but a stairway affords access to the Culham Trail on the north side of the road, at the entrance to Riverwood. Upstream of Burnhamthorpe Road, the valley becomes more incised and the river slows within a naturalized floodplain. Several trails link the valley with Riverwood and the historic Chappell House and VAM facility. Old growth woodlands are located on both valley walls.

Burnhamthorpe Road bridge

This landscape character extends northward to Eglinton Avenue West with the Culham Trail paralleling to the river. Several large armourstone revetments are located along the river banks downstream of Eglinton Avenue to address erosion and bank stability issues.

A driveway extends from the valley floor to Eglinton Avenue West on the east side of the valley at Hewick Meadows. A parking lot and playground are located in this area.

The Culham Trail continues north beneath the Eglinton Avenue West bridge and crosses the river. The trail is diverted out of the valley north of the ADM Mill site and proceeds northward on Queen Street to circumnavigate the Kraft (Foods) Mill site. At Streetsville Memorial Park, the Culham Trail crosses the river and continues northward.

Culham Trail at Britannia Road West

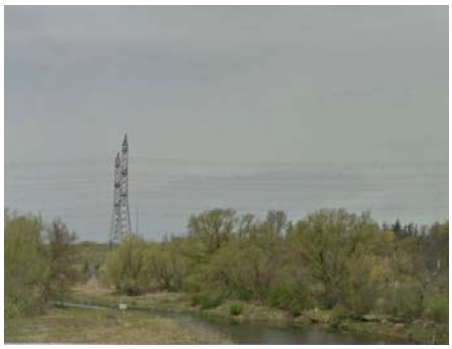
On the east side of the Credit River between Credit Meadows Park and Britannia Road West there are a number of trail connections to the surrounding neighbourhoods. In this stretch, private homes back onto the Culham Trail.

South of Riverview Park, the Culham Trail winds beneath the bridge crossing at Britannia Road West, which provides 3m of clearance, requiring cyclists to dismount when crossing below the bridge. The trail continues southward on the east side of the river.

At this point along the Culham Trail, another trail connects to the adjacent neighbourhood and River Grove Community Centre providing access to a playground, sports fields, tennis courts and a pool.

At the former Harris property the valley transitions to a broader, shallower, flat-bottomed feature. The floodplain was formally used as pasture land and is presently in active agriculture as cropland. Notwithstanding its history of agricultural use, the Harris property provides important terrestrial and aquatic habitat functions and supports an extensive herd of deer. This property is contiguous with Credit Meadows and the valley corridor associated with Fletcher's Creek and comprises a sizable block of natural cover. Old Derry Road crosses the river utilizing a low bridge and north of this crossing the Credit River meanders through the CVC's administrative office property. The CVC property includes several looped trails that offer an experience of nature.

North of Derry Road, the floodplain of the river is very broad and includes wet meadows and wetlands. The river meanders across the width of the floodplain. The floodplain is traversed by railway and hydro transmission corridors. The City of Mississauga recently implemented the Samuelson trail which extends northward from Derry Road West. This trail follows a former railway embankment and connects to Glamorgan Way on the west side of the valley.



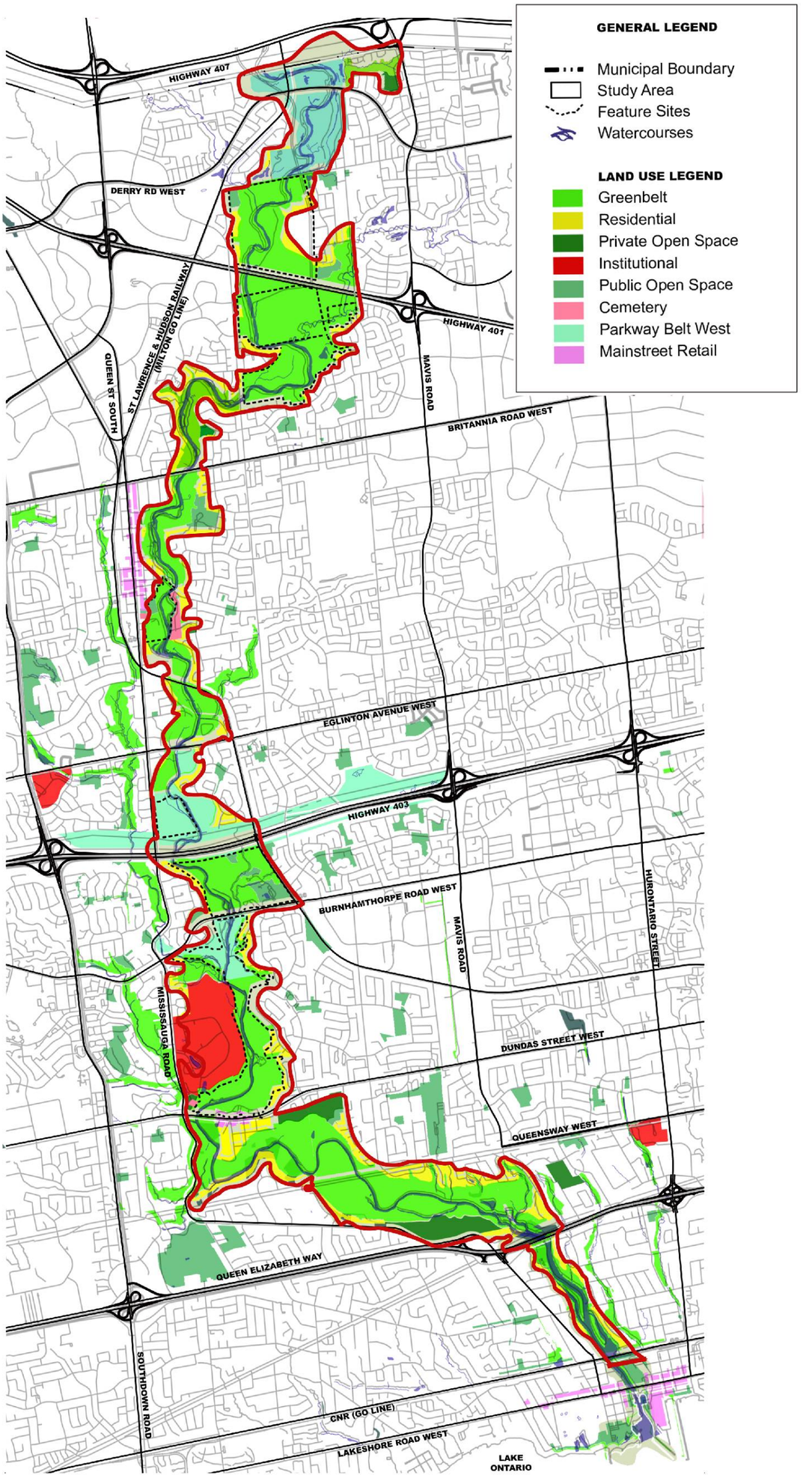
View north from Derry Road West

Dramatic views over the valley are afforded at the major road way bridge crossings, elevating the visual prominence of the valley corridor within the urban landscape.

2.5.4.1 Existing Land Uses

The existing land uses within the study area relate primarily to open space uses. Existing land uses within the study area (refer to Figure 2.3) include:

- Cemetery – 0.3%;
- Greenbelt – 44%;
- Parkland – 8%;
- Undeveloped Open Space – 5%;
- Schools – 0.7%;
- Golf Courses – 11%;
- Private Residential Properties (periphery of study area) – 17%; and,
- Miscellaneous right-of-ways (railways, roadways and utilities) – 14%.



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NORTH 0 0.5 1.0 1.5 2.0 2.5km

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Figure 2.3: Existing Land Use

2.5.5 Open Space System

Schedule 4 – Parks and Open Spaces in the City of Mississauga Official Plan approved in September 2010 includes the natural areas and linkages identified on Schedule 3 – Natural System to the Mississauga Official Pan as well as parks, open spaces and educational facilities that contribute open space and combine to establish the overall greenlands system within the City. Furthermore the City of Mississauga "recognizes that City parks contribute to environmental sustainability and strengthen communities." and the CRPS embraces this statement.

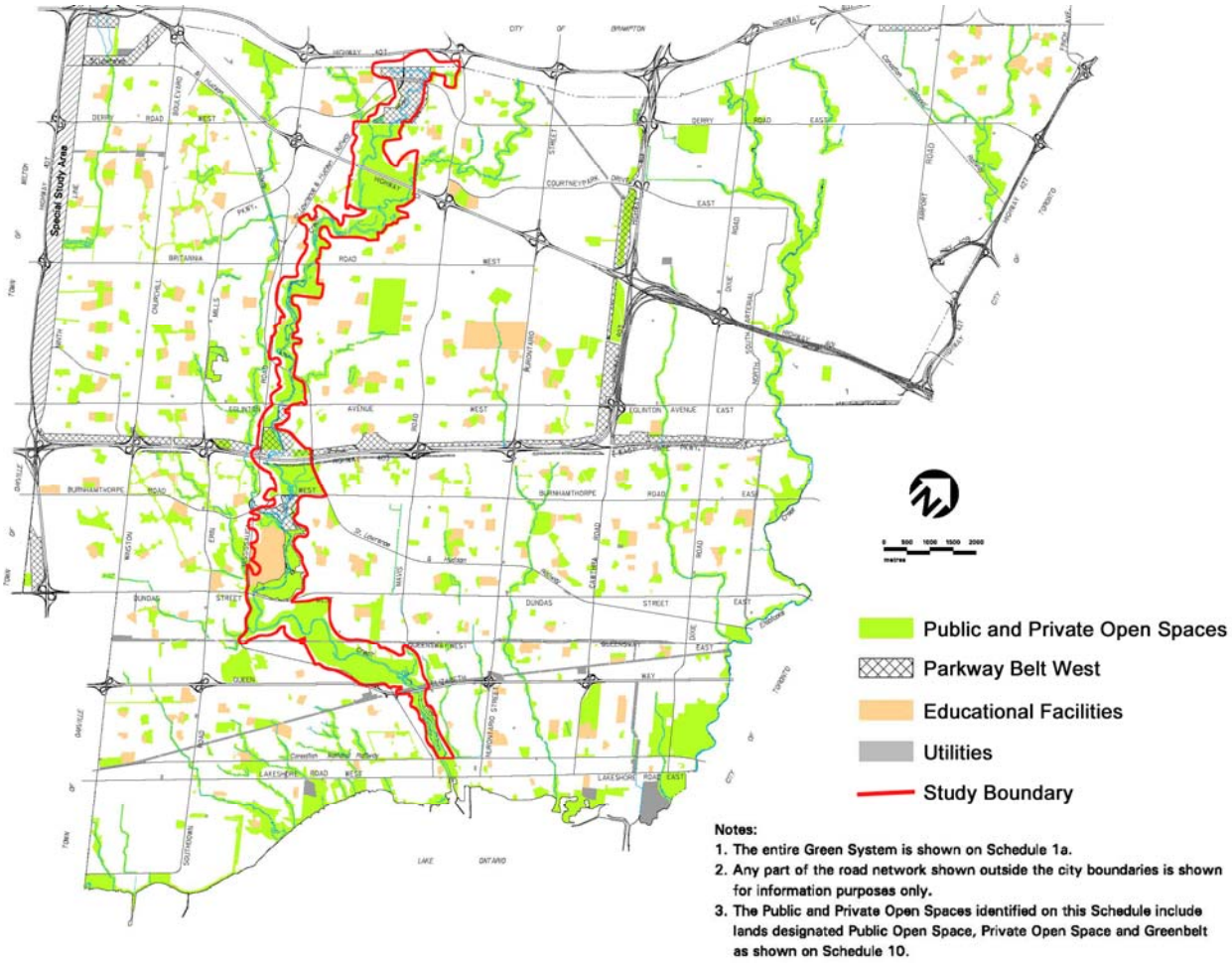


Figure 2.4: Parks and Open Spaces
Source: Schedule 4: Parks and Open Spaces, City of Mississauga Official Plan, Sept 2010

2.5.6 Land Ownership

The majority of the lands that comprise the CRPS study area are held in public ownership. Lands under the ownership of the City of Mississauga (approx. 341ha) or the CVC (approx. 195ha) comprise 528 hectares of the total 650ha study area. Figure 2.5 provides an illustration of the patterns of land ownership within the study area.

CVC and the City of Mississauga are currently pursuing a new master lease agreement for all the CVC owned lands within the City that will bring them all into conformity in terms of lease length and conditions, establishing as part of the process, cooperative management goals and objectives for conservation.

Large areas of open space within the CRPS study area are held in private ownership including lands under the ownership of the Mississaugua and Credit Valley Golf and Country Clubs. The Kraft and ADM mill properties, as well as the lands north of Highway #401 are privately-owned and thus impose limitations on public access at this time.

A description of each of the private land holdings along the Credit River in Mississauga is provided below.

Mississaugua Golf and Country Club

The property owned by Mississaugua Golf and Country Club is located north of the QEW near the downstream limit of the study area and encompasses 134ha. The property extends across the width of the valley and includes a portion of the valley of Stavebank Creek. Mississaugua Golf Club was founded in 1906. The 6,900 yard 18-hole championship golf course was designed originally as a 9-hole course by Percy Barrett. In 1909, George Cumming prepared the design to expand the course to 18 holes. Donald Ross, in 1919, made revisions to the course, and in 1927, Stanley Thompson lengthened the course in preparation for the 1927 Canadian Open[1]. The site if the Credit Mission Native Village (1826-1847) is located within the golf club property. This heritage site presents opportunities for interpretation.

Portions of the golf course are subject to flooding and periodic damage from ice movement. At various times since its establishment, the golf club has experienced extensive damage resulting from the migration of ice across fairways, tees and greens. Ice movement within the golf course resulted in damage to trees and vegetation, manifested in scarring and the stripping of bark off of the lower areas of the trunks of trees. In 1999 the Club completed a project aimed at stabilizing a reach of the Credit River utilizing biotechnical stabilization techniques. This project eliminated concrete revetments and included the realignment of a 900 meter reach of the river in order to achieve a more stable meander geometry and profile. This project was successful in alleviating bank erosion and instability problems along this segment of the river within the golf course. Public access to the golf club's lands is not permitted; although informal use of the lands by members of the public for walking or cross-country skiing occurs in the off season.

[1] www.mississauguagolf.com

Credit Valley Golf and Country Club

The Credit Valley Golf and Country Club is located immediately north of the Mississaugua Golf and Country Club property. The Credit Valley Golf Club was established in 1930. Notable golf course architects that evolved the design of the course include Stanley Thompson and Robbie Robinson. The golf course was extensively damaged by Hurricane Hazel in 1954 and again as a result of a flood in May of 1974. The club's land holdings encompass 32ha extending across the Credit River valley. The lands are not generally accessible to the public although informal use for walking and cross-country skiing occurs during the off-season.

ADM Mill, Streetsville

The ADM Mill is located in Streetsville on the east side of Queen Street. The plant produces cocoa-based products for the bakery and confectionary industry. The mill includes a number of silos, an administration building, shipping and receiving and outdoor storage and parking areas. Public access to the property is not permitted, however a pedestrian trail is routed around the north side of the property. This trail crosses the railway right-of-way at a level pedestrian crossing and connects to a bridge that traverses the Credit River.

Kraft Mill, Streetsville

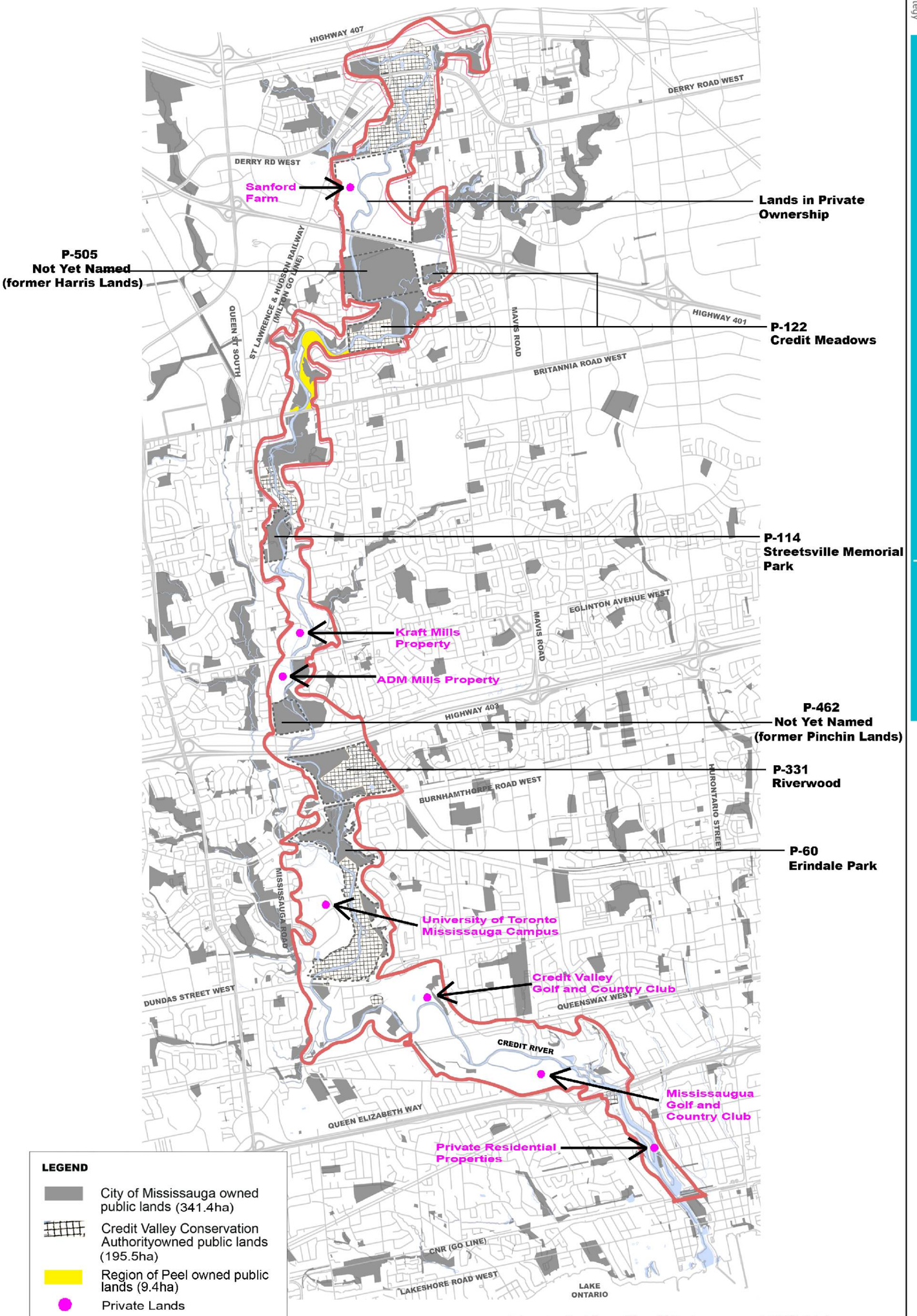
The Kraft Mill property encompasses a large industrial operation on the site of the former Reid Mill that was established in 1820. Portions of the original mill are contained inside the modern mill complex. The mill was expanded in 1969 and again in the 1980s. The Kraft Mill property encompasses 15.28ha and extends across the Credit River. Public access to the property is restricted and the Culham Trail diverts from the valley to Queen Street to circumnavigate the mill property. Development of the mill property has included stabilization work along the west bank of the Credit River. The historic Streetsville dam and fishway are located within the Kraft Mill property.

Lands in Private Ownership North of Highway #401

The Sanford Farm property is located north of Highway #401. A significant proportion of the property is contained within the floodplain of the river. The lands are presently in agriculture. An easement to accommodate the Region of Peel's sanitary trunk sewer traverses the property just north of Highway #401. Access to the lands south of the highway is afforded via a farm lane that is located under the Highway #401 overpass on the east side of the Credit River.

Private Residential Properties

Portions of the study area are held in private ownership as residential properties. The valley south of the QEW is comprised almost entirely of residential lots. This situation constrains to public access and presents some potential challenges to achieve a continuous natural corridor throughout the length of the CRPS study area.



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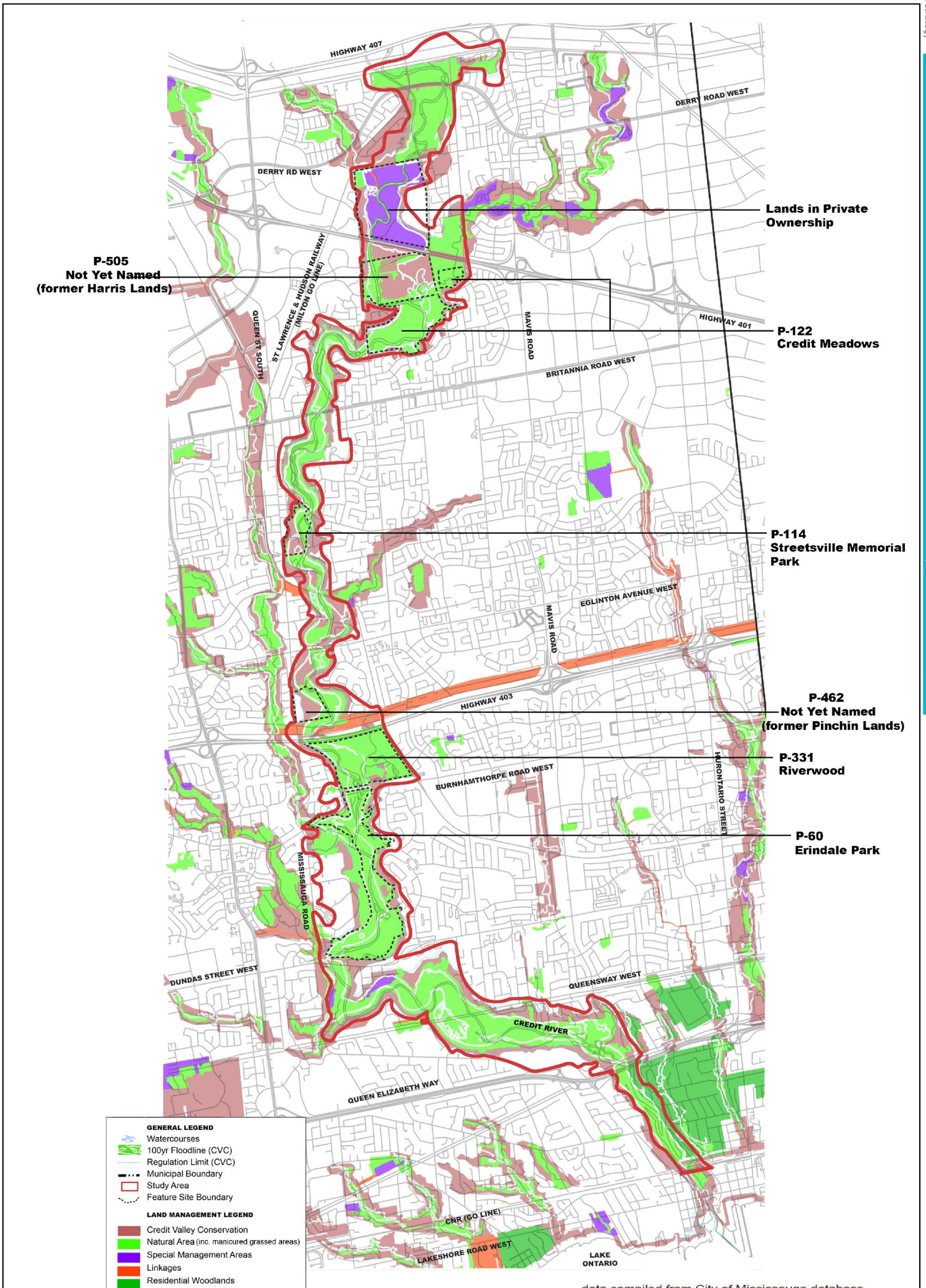
NORTH 0 0.5 1.0 1.5 2.0 2.5km

Figure 2.5: Public and Private Land Ownership

2.5.7 Land Management

Figure 2.6 is adapted from Schedule 3 – Natural System from the City of Mississauga Official Plan and provides an illustration of the management and regulatory context of lands within the study area. Read in conjunction with the policies of the CVC and City of Mississauga, this figure illustrates how land uses within the study area align with different policy and management directives (refer to Figure 2.6).



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NORTH

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Figure 2.6: Jurisdiction Land Management

2.5.7.1 Biophysical Context

(a) Physiography/Soils

The City of Mississauga includes three physiographic regions; the South Slope, which is the southern slope of the Oak Ridges Moraine and includes moraine deposits of limited relief made up of till soils; the Peel Plain, which is a level to undulating tract of clay soils that lies over top of the South Slope till soils; and the Lake Iroquois Shoreline, which consists of a narrow band of sandy soils bordering the north shore of Lake Ontario. Figure 2.7 shows the extent of physiographic regions in Southern Ontario.[2]

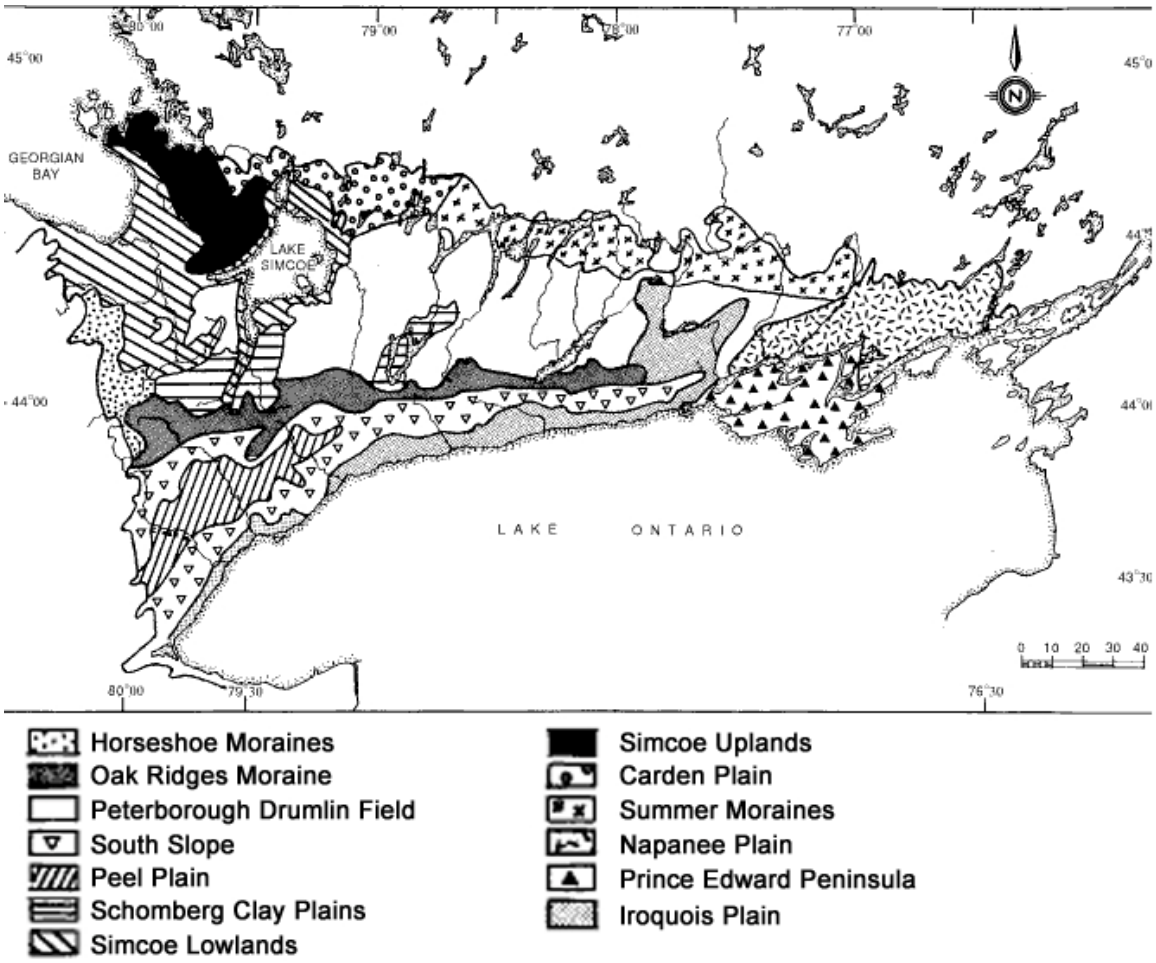


Figure 2.7: Physiography of South Central Ontario [2]

Prior to European colonization, the silty-clay-loam and sandy-loam soils of the South Slope, which are moisture retentive and highly fertile, supported mixed forests of maple, beech and white pine. The heavy clay soils of the Peel Plain which have poor drainage characteristics, supported a mixture of maple, beech, oak and hickory. The sandy soils of the Lake Iroquois Shoreline are freely-drained and supported open forests of oak and hickory.[3]

[2] Chapman, L.J. and Putnam, D.F., 1984
[3] Warrick, Gary A., 2008

(b) Landform/Topography

The landform of the study site largely reflects the underlying surficial geology and is influenced by patterns of prior land use and natural fluvial processes. In southern Ontario, this geology is a result of the last glaciation period (approximately 12000 years ago). The key landform characteristics of elevation, aspect and degree of slope are, when combined with climate, the main controlling factors that define ecological processes, both terrestrial and aquatic.

(c) Stormwater Management

With regards to conveyance of stormwater, a portion of the City was developed prior to the enactment of current SWM practices. As such, there are some areas where uncontrolled stormwater is released directly into the Credit River, potentially increasing downstream erosion and flooding. There are five existing SWM ponds within the study area, of these one has been identified for rehabilitation in the City of Mississauga's Capital Work Forecast. Potentially four SWM facilities that are proposed to be constructed within the study area are included in the Capital Work Forecast currently all beyond the 10-year Capital Forecast.

Throughout the City, areas of acute erosion have been identified, and each has been assessed in terms of risk to public safety as part of the Credit River Adaptive Management Study (CRAMS). Since this assessment in 2005, numerous restoration projects have been completed, two projects are presently underway, and four other restoration projects are forecasted to be implemented by 2018.

2.5.7.2 Natural Heritage Context

(a) Regional Greenlands System

The Region of Peel Official Plan stipulates specific requirements for protection of core areas, natural areas, corridors and potential natural areas and corridors within the Greenlands system (identified on Figure D-3 in Appendix D). The Official Plan limits development and site alteration in these areas and promotes the establishment of connections to other natural heritage features outside of study area. The City of Mississauga Official Plan further recognizes that the Green System in Mississauga, consisting of the Natural Areas System, Natural Hazard Lands and Parks and Open Spaces, contribute to a valuable natural environment in the City that these lands "…perform an essential ecological function. As such Mississauga will promote and be proactive in the management of its Natural Areas System."

The study area is also identified as an "External Connector" in the provincial Greenbelt Plan (2005), further emphasizing the primacy of natural heritage objectives. The process of developing of the CRPS considered the policies and objectives that guide the protection and enhancement of the NAS, especially when determining locations for recreational facilities, park programming activities and recommended alignments for trails.

(b) Corridors and Connections

The following provides a summary of the context of the CRPS study area in relation to local and regional natural corridors and connections.

- The Credit River valley is the largest and most important ecological linkage through the City of Mississauga;
- The watercourses and valleys associated with the Credit River aid the movement of wildlife and the dispersal of flora throughout the subwatershed, albeit limited by the extent of urban development;

- Linkages afforded by the river valley provide connections across the landscape to facilitate the long-term movement/dispersal of all plants and animals; and,
- Linkages within the study area provide connections amongst isolated natural heritage features that accommodate the local movement/dispersal requirements of plants and animals.

2.5.8 Natural Heritage Assessment

2.5.8.1 Existing Natural Heritage Features

The characterization of existing natural heritage features was based on various sources (Refer to Appendix C). Using Geographical Information Systems (GIS) software the data were mapped over an aerial photograph of the study area to illustrate the specific locations of sensitive species and habitats, where available, and natural heritage feature summaries per NAS site (Figure 2.10). Summarized data included vegetation communities, vegetation quality indices, flora and fauna occurrences, wetland locations, forest interior habitat, management issues and special features. Each of these data sets is described below.

a) Vegetation Communities: These were derived from NAS mapping, and are categorized as Ecological Land Classification (ELC) communities (Lee *et al.* 1998). Vegetation communities were evaluated to identify the more sensitive habitats including wetlands and interior forests (i.e., the central area of a woodland no closer than 100 m to the forest edge). Interior forests provide significant habitat for forest interior nesting bird species. The boundary of wetland communities were identified using NAS mapping and CVC data.

b) Flora: Floral data was compiled from the NAS and CVC databases. All data provided were screened in the NAS database to determine species' statuses. For example, records of SAR including endangered, threatened and special concern species were noted (as listed by COSEWIC[4] and/or COSSARO[5]). Provincially rare, identified as S1-S3 by the NHIC, and locally rare, identified by the City of Mississauga (Mississauga Ranks 0-1), species were also noted.

c) Vegetation Quality: This parameter was assessed using the Floristic Quality Index (FQI) and the mean Coefficient of Conservatism (CC) of each natural area. FQI, a measure of both habitat conservatism and species richness and thus an indicator of vegetation quality, is the average CC divided by the square root of the number of plant species in the community (Oldham et al. 1995). CC is a measure of a plant's specificity of habitat requirements, with a coefficient of zero (0) indicating a plant tolerant of a wide range of conditions and ten (10) indicating a plant that has the most specific habitat requirements. Mean CC is thus a measure of a plant community's habitat requirements.

d) Fauna: Information was compiled from the NAS database and CVC records. All fauna data provided were screened in the NAS database to determine species' statuses. For example, SAR including endangered, threatened and special concern species were noted (as listed by COSEWIC and COSSARO). Provincially

[4] Nationally rare species are designated by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) and are subject to the Species at Risk Act (SARA).
[5] Provincially rare species are designated by The Committee on the Status of Species at Risk in Ontario (COSSARO) and are subject to the Species at Risk Act (SARA).

rare species, identified as S1-S3 by the NHIC, and regionally rare breeding bird species, identified by CVC (Bird Species of Conservation Concern Tier 1-3), were also noted. Records of area sensitive breeding birds of both forested and open habitats were identified, as were records of ground nesting birds of both forested and open habitats. The Ministry of Natural Resources (MNR) Significant Wildlife Habitat Technical Guide (SWHTG 2000) was used as the reference for area sensitivity, including species that are dependent on forests or open areas. Ehrlich et al. (1988) was used to confirm professional judgment to identify ground nesting birds, including species that nest in forests or open areas.

e) Wetlands: Information regarding wetland boundaries was identified using two different sources of information:
   - Mississauga NAS Wetland Layer: this layer consists of wetland boundaries mapped through fieldwork conducted as part of the City of Mississauga's NAS; and,
   - Credit Valley Conservation 2006 Wetland Layer: this layer consists of wetland boundaries provided by CVC (5 Oct 2010).

   Wetland boundaries reported from the NAS were confirmed through field investigations and classified using the ELC system (Lee *et al.* 1998). CVC's 2006 wetland layer is composed of several different sources of information, including the MNR wetland layer, field investigations, and aerial photography interpretation. The MNR wetland layer provided by CVC may not be the most up to date, and CVC staff recommended that MNR be contacted directly (Adèle Labbé, pers. comm. 5 October 2010) to confirm wetland boundaries. Substantial updates to wetland boundaries are judged not to be required within the study area boundary because relatively detailed studies have been conducted by MNR within the Credit River corridor to identify wetlands in the past, including PSW (e.g., Credit River Marshes PSW).

   In order to represent the full extent of wetlands within the study area boundary, the two available wetland layers were joined to create one wetland layer, using GIS software. The outermost wetland boundary was used in all cases to present a conservative estimate of wetland patch size. The combined wetland layer was used as part of the sensitivity analysis (Section 2.5.8.2).

f) Management Issues: Management issues were summarized from NAS fact sheets prepared for each NAS site and from CVC's Conservation Areas Overview from the Lands Department (CVC 2010). Management issues, such as erosion, invasive species, encroachment and ad hoc trails, were summarized for each NAS site (Table 2.2).

g) Special Features: The characteristics of special features were summarized from NAS fact sheets prepared for each NAS site. Special features include prairie remnants, vernal pools, old growth forest, significant wildlife habitat and seepages.

(a) Vegetation Communities (ELC)

Vegetation community classification information was derived from NAS mapping, and was categorized according to ELC vegetation community type (Lee *et al.* 1998). Refer to Figure 2.8 below for ELC mapping. The majority of the Credit River corridor is broadly classified as forest, ranging from bottomland forest dominated by green ash *(Fraxinus pennsylvanica)* to upland wooded slope forest dominated by sugar

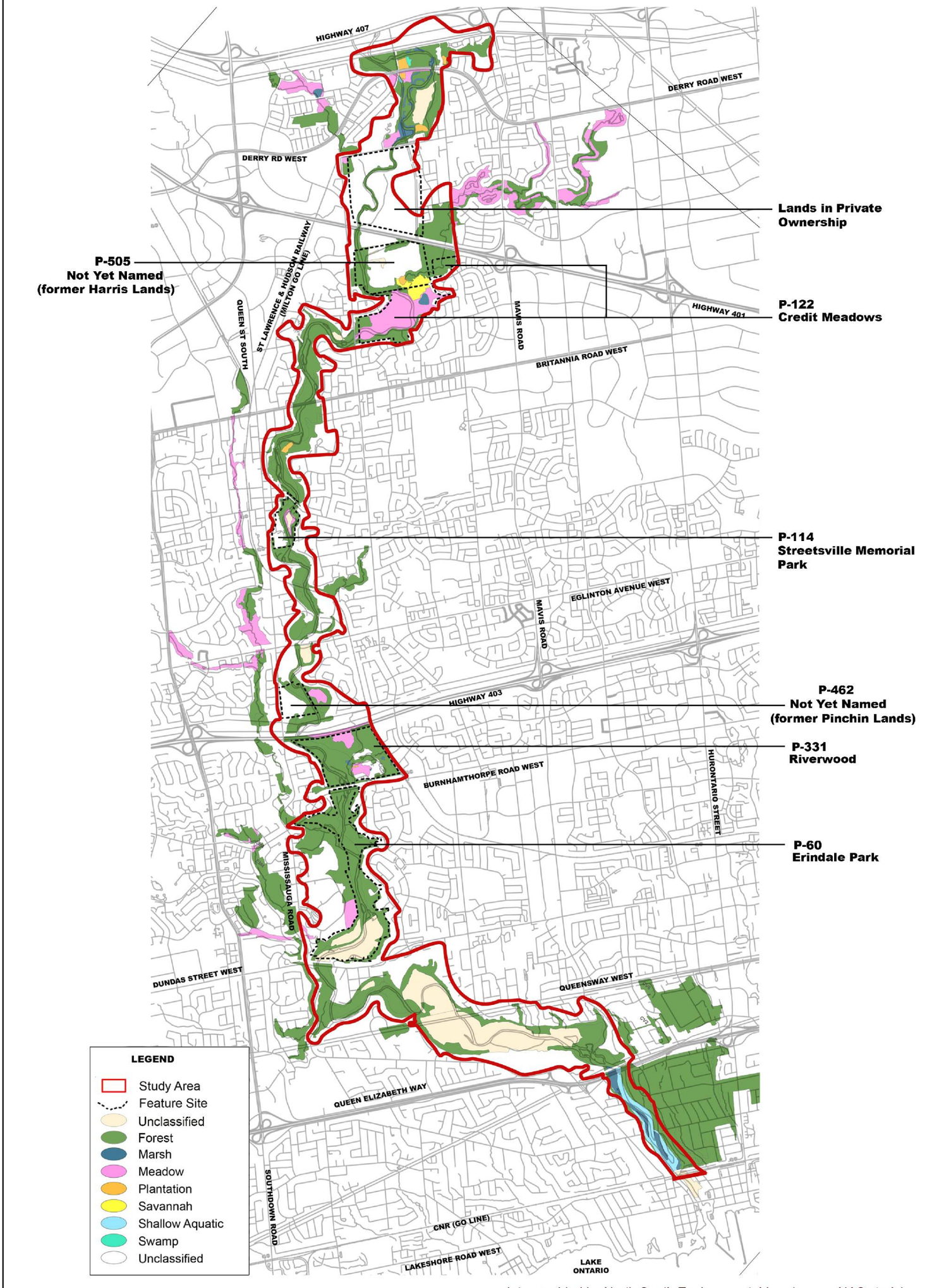
maple *(Acer saccharum ssp. saccharum)* and red oak *(Quercus rubra)*. Large patches of cultural meadow were also present is several locations within the Credit River corridor. Small patches of cultural savannah and plantation were present, but in very limited numbers. Wetland vegetation communities included swamp, marsh and shallow aquatic. These vegetation communities were found in association with the floodplain of the Credit River, and are generally quite small in size. One PSW complex, Credit River Marshes PSW, is located within the study area at NAS sites CRR8 and CRR9.

Several areas of unclassified or human influenced landscapes were identified within the CRP System, including areas associated with golf courses and manicured public parks.

Several natural areas found within the study area support forest interior conditions. This type of habitat provides important refuge for species that are area-sensitive and require larger tracts of forest to complete their life cycles. Forest interior conditions were found at the following NAS sites: MV12, MV2, CRR2, CRR3, CRR5, CRR11, CRR10, CRR6, CRR7, and CRR8. Forest interior habitat is rare in the City of Mississauga. Much of the forest interior habitat found in the City of Mississauga is located within natural areas found along the Credit River corridor, all of which are captured within the study area boundary of the CRPS project.

(b) Flora and Fauna Species of Concern to CVC

CVC has developed lists of "Species of Conservation Concern", to support the implementation of policies intended to protect species at risk, significant wildlife habitat, and the biodiversity and ecological integrity of the Credit River watershed. Species of Conservation Concern have been identified in three tiers, with Tier 1 species most in need of protection and Tier 2 and Tier 3 species are recommended to be monitored and more carefully managed to better understand their status and threats to reduce the likelihood that they could become Tier 1 species. Tier 1 species termed "Species of Conservation Concern" by CVC are either currently protected under Canada's Species At Risk Act (SARA) or Ontario's Endangered Species Act (ESA). These species have been designated as SAR by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) or by the Committee on the Status of Species at Risk on Ontario (COSSARO), or have been assigned a Subnational Rank (S-rank) of S1-S3 by the Natural Heritage Information Centre (NHIC). Tier 2, denotes "Species of Interest", which are species that may be at risk of extirpation from both rural and urban areas of the Credit River Watershed. Tier 2 species were identified based on rarity status established in existing lists of local flora (*e.g.*, Varga *et al.* 2000; Kaiser 2001). Tier 2 species also appear to be exhibiting population declines, or are naturally rare, or are known or suspected to be sensitive to habitat loss and the effects of urbanization. Tier 3 species, termed "Species of Urban Interest" are identified in a similar manner to Tier 2 species, with the addition of a review of City of Mississauga NAS Ranks for local flora. The identification of Tier 2 and Tier 3 species was undertaken to encourage additional monitoring and management of their habitats in order to prevent these species from becoming Tier 1 Species of Conservation Concern. In general, portions of the study area that support high concentrations of CVC Species of Conservation Concern contain unique and high quality habitats within the City of Mississauga. The presence of CVC Species of Conservation Concern was used as a criterion in the Sensitivity Analysis.



data provided by North South Environmental Inc. (source NAS study)

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Figure 2.8: Ecological Land Classification

Within the CRPS study area boundary, several records of Tier 3 species are present, which include species of flora (*e.g.*, great blue lobelia, white oak, wild columbine, and wild crane's-bill), and fauna (*e.g.*, American toad, big brown bat, great blue heron, and midland painted turtle). Populations of these species have been recorded at several locations within the CRPS study boundary; however, a particularly high density of these species has been recorded at Riverwood (NAS Site CRR10). Several records of Tier 1 species have also been noted within the study area boundary including: black-crowned night-heron, butternut and northern long-eared bat. Black-crowned night-heron was noted at NAS site CRR9, several records of butternut have been noted at Riverwood (NAS site CRR10) and northern long-eared bat has been recorded at CRR1 within Meadowvale Conservation Area, adjacent to CVC's Head Office.

2.5.8.2 Natural Heritage - Sensitivity Analysis

In order to gain an understanding of the overall sensitivity of the CRPS study area landscape, a "Sensitivity Analysis" was completed. Existing natural heritage information was compiled for each NAS site within the study area. Some NAS sites extend beyond the study boundary and in these cases the entire NAS site was included. Following this exercise, a sensitivity analysis was completed to synthesize natural heritage information and determine the sensitivity of the natural heritage features found at each NAS site within the study area. This exercise provided direction of the assignment of in the process of determining appropriate programming and defining proposed trail alignments.

The following text provides a brief overview of the information sources and methodology used to complete the sensitivity analysis. As part of this work, two maps were prepared to illustrate the findings. Figure 2.9 illustrates the natural heritage features found within the study area; and Figure 2.11 illustrates the ecological sensitivity of habitats within the study area.

2.5.8.3 Natural Heritage Features Mapping

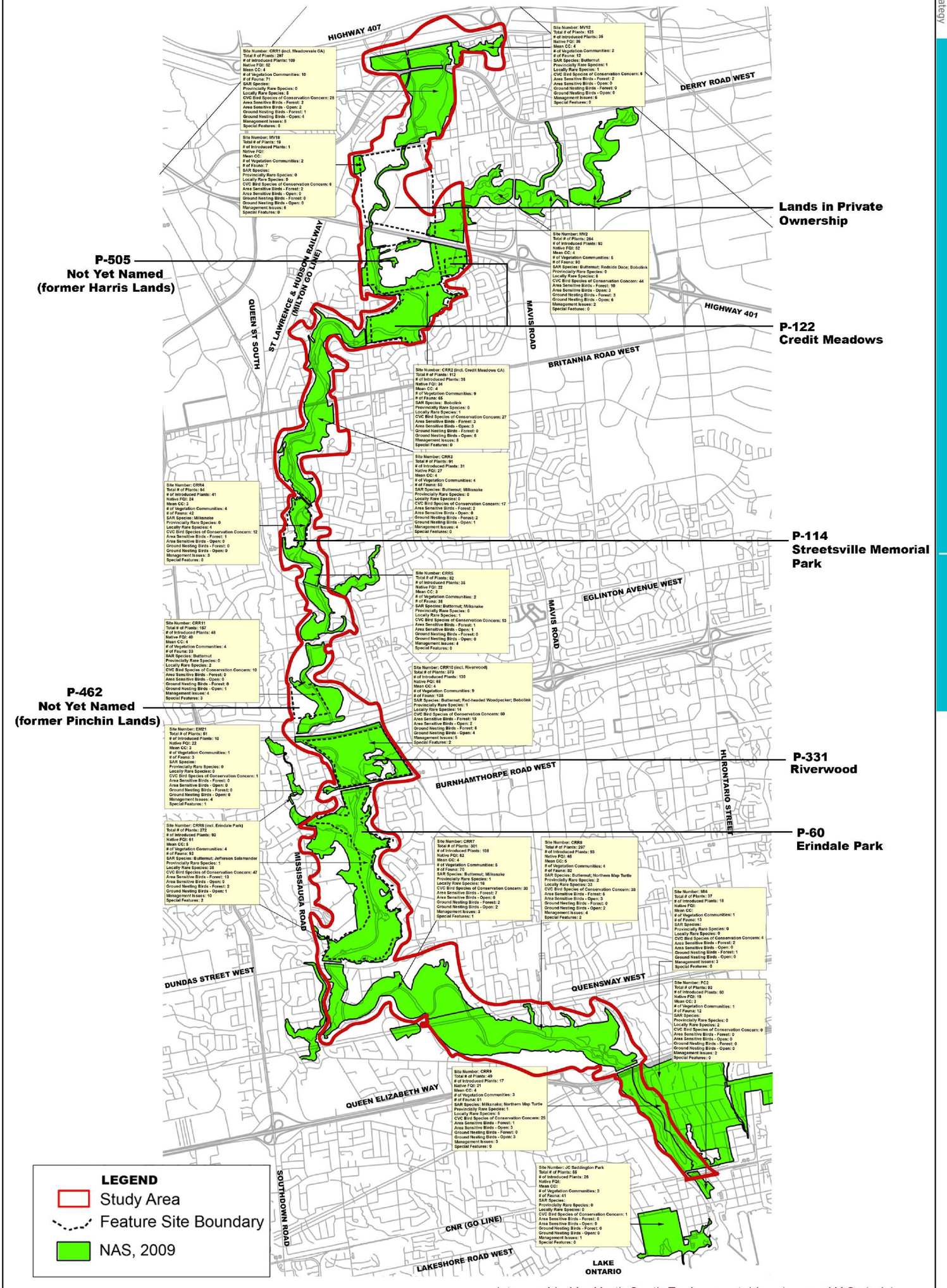
Natural heritage features were mapped to provide a context and visual aid for the sensitivity analysis (Figure 2.11). NAS data are collected at the site-specific level rather than on the basis of locations of individual species and populations. In order to make the plethora of available data more useable, data summaries for each site were prepared and displayed on Figure 2.9 - Study Area Natural Features. The following categories were used to summarize the available data in order to describe each site:

- total number of plants;
- number introduced plants;
- native FQI;
- mean CC;
- number of vegetation communities;
- number of fauna species;
- number of locally rare flora species (based on Mississauga Ranks 0-1);
- number of CVC Bird Species of Conservation Concern (Tiers 1-3);
- number of area sensitive birds of forested and open habitats;
- number of ground nesting birds of forested and open habitats;
- management issues; and,
- special features.

An additional map was prepared based on the City of Mississauga's database of natural areas and the CVC's database of Environmentally Sensitive Areas ESA's and Provincially Significant Wetlands (PSW). Together with the Study Area Natural Features information as identified in Figure 2.10 provides a complete picture of the

species richness, distribution (by NAS area only) and habitat characteristics throughout the study area.

The Study Area Natural Features map (Figure 2.9) also illustrates the locations of CVC Species of Conservation Concern (Tiers 1-3) representing the locations of regionally rare species, CVC fish records of SAR (i.e., Redside Dace and American Eel), and NHIC records of significant species where available. A detailed description of the natural features present within each NAS site is provided in Appendix F.



data provided by North South Environmental Inc. (source NAS study)

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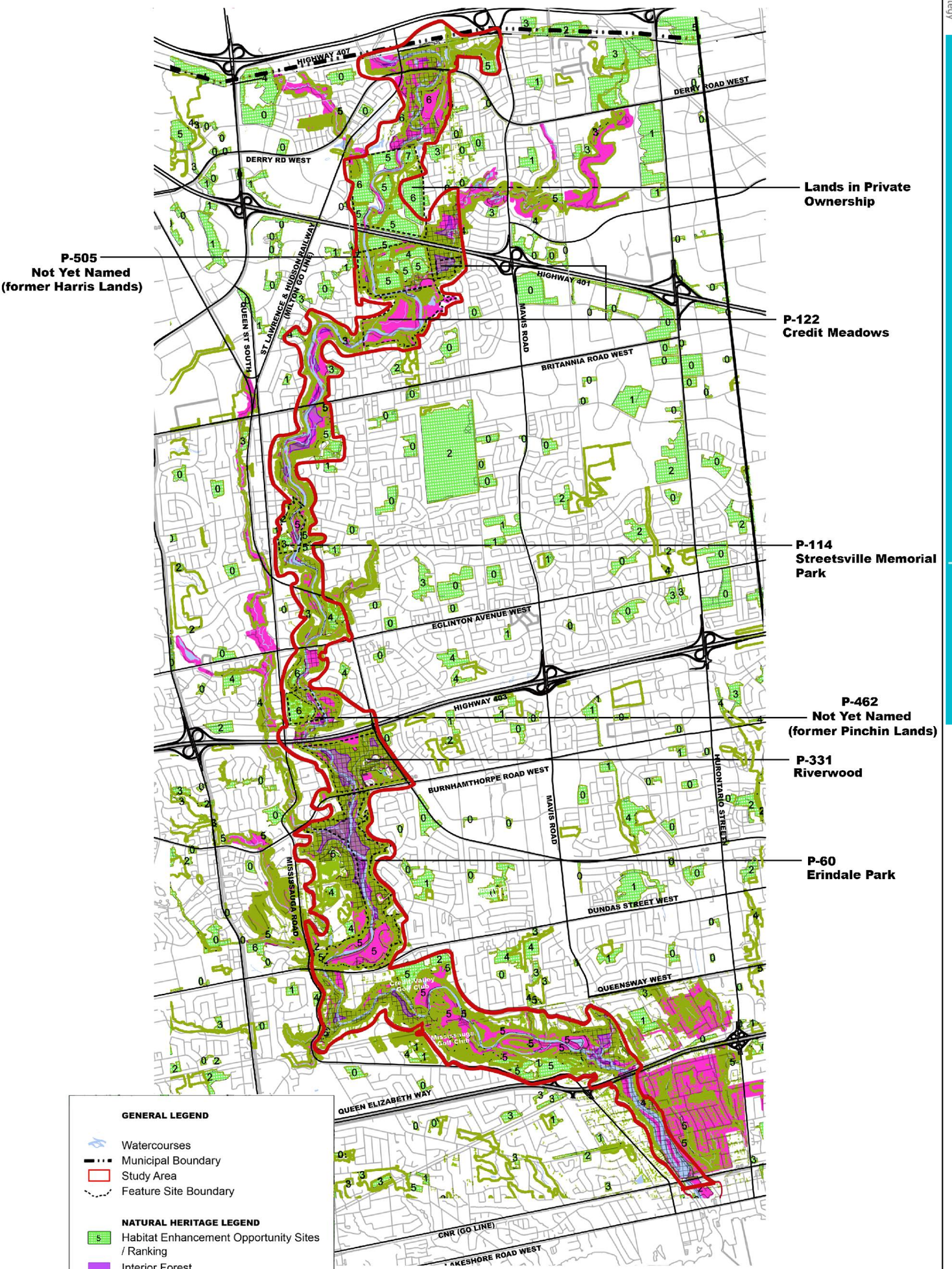
Figure 2.9: Study Area Natural Features



*Note Credit Valley Conservation Landscape Scale Analysis (LSA) and Habitat Enhancement Opportunity Analysis are shown as draft and are subject to change.

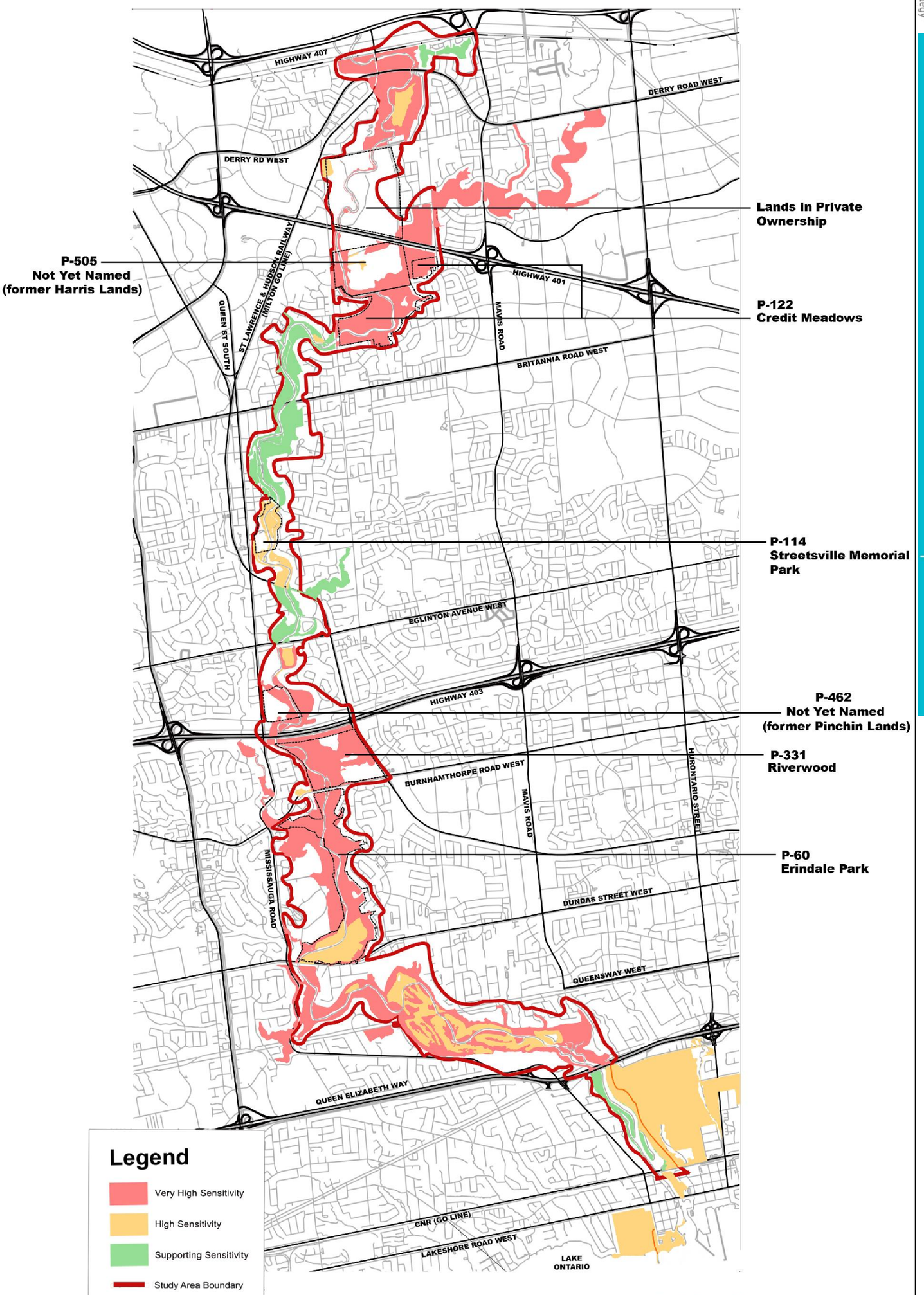
data compiled from City of Mississauga and CVC databases

credit river parks strategy

Figure 2.10: Natural Area Significance

2.5.8.4 Intent of the Sensitivity Analysis

The sensitivity analysis does not quantify the ecological value of the natural areas along the Credit River in Mississauga. Rather, the intent of the sensitivity analysis was to rank the ecological sensitivity of each area with the purpose of informing decision-making related to programming, the determination of trail alignments, the prescription of permitted uses and requirements for management. Outcomes of the analysis were not intended to be used as a constraint mapping exercise to set absolute rules about what should and should not be done in various parts of the Credit River valley. The sensitivity analysis was used to determine appropriate patterns of proposed uses within the study area, while also offering insight into priorities for enhancement of natural heritage features.


HIGHWAY 407
DERRY ROAD WEST
DERRY RD WEST
Lands in Private Ownership
P-505
Not Yet Named
(former Harris Lands)
ST LAWRENCE & HUDSON RAILWAY (MILTON GO LINE)
QUEEN ST SOUTH
HIGHWAY 401
MAVIS ROAD
P-122
Credit Meadows
BRITANNIA ROAD WEST
P-114
Streetsville Memorial Park
EGLINTON AVENUE WEST
HIGHWAY 403
P-462
Not Yet Named
(former Pinchin Lands)
P-331
Riverwood
BURNHAMTHORPE ROAD WEST
MAVIS ROAD
HURONTARIO STREET
P-60
Erindale Park
MISSISSAUGA ROAD
DUNDAS STREET WEST
QUEENSWAY WEST
QUEEN ELIZABETH WAY
CNR (GO LINE)
LAKESHORE ROAD WEST
LAKE ONTARIO
Legend
Very High Sensitivity
High Sensitivity
Supporting Sensitivity
Study Area Boundary
data developed by North-South Environmental Inc.
MISSISSAUGA
Leading today for tomorrow
SCHOLLEN & Company Inc.
credit river parks strategy
Figure 2.11: Ecological Sensitivity Mapping
NORTH
0 0.5 1.0 1.5 2.0 2.5km

2.5.8.5 Findings

Table 2.1 provides a breakdown of the sites assessed according to sensitivity category and corresponding sensitivity scores. The final result of the analysis identified eight areas designated as "very highly sensitive", four areas as "highly sensitive", and six areas as "supporting natural areas".

Table 2.1: Ecological sensitivity scores and categories reported for sites assessed within the study boundary.

Site	Score	Sensitivity Category
PC2	0	supporting
JC Saddington	0	supporting
MV18	2	supporting
CRR4	2	supporting
EM21	2	supporting
MI4	2	supporting
MV12	3	high
CRR5	3	high
CRR3	5	high
CRR9	5	high
CRR1	6	very high
CRR2	6	very high
CRR11	6	very high
MV2	7	very high
CRR7	8	very high
CRR6	8	very high
CRR10	8	very high
CRR8	9	very high

Following the sensitivity analysis, a map was prepared to indicate the sites that were considered to be very high, high or supporting (see Ecological Sensitivity Map, Figure 2.11). This layer was further refined by coding all anthropogenic areas as supporting sensitivity, regardless of the sensitivity of adjacent habitats (e.g., the large manicured portion of Erindale Park was moved from very high sensitivity to supporting). Conversely, the Credit River itself was coded as very high sensitivity to highlight the importance and inherent sensitivity of the watercourse. The sensitivity categories and mapping (Figure 2.11) were used to inform the proposed location of trails and proposed types of trails and recreation uses in consideration of the degree of sensitivity of specific area.

2.5.8.6 Integration with CVC Classification System

CVC completed a Landscape Scale Analysis (LSA) within the City of Mississauga, as part of the Lake Ontario Restoration Plan. The LSA was completed by characterizing and assessing existing natural and semi-natural areas within the City of Mississauga in terms of their relative importance in contributing to ecosystem functions. The result of this analysis provided an indication of the biofunction of individual habitat patches based on scores ranging from zero (relatively small contribution to watershed functioning) to nine (extremely high contribution to watershed functioning). Based on the results of the LSA, it was determined that the entire Credit River corridor is composed of habitat patches that provide core biofunction and highly supporting biofunction (the two highest categories), and should be approached as highly significant in terms of ecological value. It should be noted that the Credit River itself is not included in the LSA as criteria were applied to terrestrial habitats only (including wetlands).

A second part of the LSA included an assessment of habitat enhancement areas. These areas consist of existing agricultural lands and manicured open space that could be strategically restored to enhance the resilience of adjoining natural areas (CVC 2010). Highest priority areas for natural function enhancements were identified using a set of criteria that are rooted in conservation biology and natural heritage systems planning principles. Patches were ranked from relatively low priority (0) to high priority (9) for stewardship or restoration activities. The outcome of this analysis was incorporated into the background mapping (identified as habitat enhancement opportunity sites with ranking illustrated on Figure 2.10) to provide context for the CRPS project. Consideration was given to restoring high priority sites within the study area in the process of developing the Master Plan and Preferred Concept Plans for the "Feature Sites".

2.5.8.7 Landscape Management Issues

Issues and recommendations related to the management of various landscape types were compiled from existing data sources (NAS fact sheets and Conservation Areas Overview (CVC 2010) for each NAS site). The number and type of management issues recorded for each site were included in natural heritage feature summaries (Appendix F) and on the Study Area Natural Features Maps (Figure 2.9). The purpose of recording management issues as part of the background exercise was to ensure that consideration was given to management issues early on in the process of generating the CRPS. Table 2.2 summarizes the management issues present at each NAS site. Erosion, invasive species, garbage and dumping, and ad-hoc trails are the most prevalent and widespread management issues. Specific locations have been defined for some management issues within certain natural areas (e.g., areas used for mountain-biking, severe invasive species infestations, giant hogweed locations). Awareness of existing management issues and impacted areas guided the development of management recommendations provided as a component of the CRPS and ensured the compatibility of proposed trail locations and recreational uses within the study area.

Table 2.2 provides a summary of management issues identified at each NAS site within the CRPS study area. The total number of issues found at each site is provided at the bottom of the table.

Management Issue	Site																
	CRR1	CRR10	CRR11	CRR2	CRR3	CRR4	CRR5	CRR6	CRR7	CRR8	CRR9	EM21	MI4	MV12	MV18	MV2	PC2
ad hoc trails	x	x	x	x	x	x	x	x	x	x		x	x	x	x		
channelization																	x
cutting & clearing								x				x					
encroachment	x		x	x				x	x	x	x	x		x			
erosion	x	x	x	x	x	x	x	x		x	x			x	x		
garbage & dumping	x			x	x		x	x	x				x	x	x		
hazard trees	x			x				x									
hazardous slopes								x									
hazardous vegetation	x			x						x							
invasive species	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
mountain biking		x	x					x						x			
remnant dam							x										
soil compaction		x		x				x				x					
stormwater management															x		
trail maintenance	x			x													
uncontrolled access	x							x						x	x	x	
TOTAL:	9	5	5	9	4	3	5	11	4	5	3	5	3	7	6	2	2

2.5.8.8 Issues Associated With Trails

A number of trails, both formal and informal, traverse the study area. In some locations, trails use is resulting in impacts on the environment. In other areas, trails are being compromised by erosion, ice movement, and other environmental influences. Observations arising from field investigations concluded the following:

- Erosion and soil compaction associated with informal trails in natural areas are impacting tree roots, potentially compromising tree health and stability (Credit Meadows);
- Informal trails may reflect preferred linkages and a desire for looped trails (Credit Meadows);
- Some trails present safety risks for users; (i.e. near top of bank of river, low bridges, at pinch points of the river, traversing steep slopes);

- Many parts of the Culham Trail are located within the floodplain and sections of the trail are frequently undermined due to periodic flooding. Erosion sites are identified on Figures 2.16A-D;
- In some areas trails intersect groundwater seepage zones resulting in wet trail conditions and trail degradation;
- In some areas river bank and valley slope erosion is occurring due to foot traffic as well as mountain bike riding and off leash dogs;
- Some trails are traversing steep slopes resulting in impacts on slope stability and erosion;
- Encroachment on vegetation is occurring impacting understorey succession;
- Some trails are fragmenting natural ecosystems; and,
- Incompatible activities / uses are occurring that have an impact on the vegetation communities and park amenities.

2.5.8.9 Cultural Heritage Context

(a) Archaeological Resources

Based on mapping provided by the City of Mississauga, dated May 2010, there are 286 known archaeological sites within Mississauga, of which 22 sites are situated within the study area. These sites are identified approximately in Figures 2.12A and 2.12B. It should be noted that this map does not convey accurately their specific geographic locations. The figures are intended to illustrate the concentrations of known archaeological find sites in the vicinity of the Credit River valley. A complete description of the various archaeological sites that are found within the CRPS study area is provided in Appendix I.

(b) Heritage/Cultural Features and Landscapes

There are numerous cultural heritage resources and landscapes within and adjacent to the study area. These include remnant orchards, homesteads, church properties and cemeteries. In addition, there is an extensive list of Heritage Designated and Listed Heritage properties. Listed and Designated Heritage properties are identified on Figure 2.13 and key heritage resources are noted. Figure 2.14 identifies the original orchard sites, homesteads, cemeteries and populated non-agricultural centres (settlements) at the time when Mississauga was still known as the Township of Toronto. The location of many of the original mill sites along the Credit River was overlain on a map prepared by Heritage Mississauga to illustrate historic homesteads that have survived to the present day. A complete description of the heritage resources that were considered in the process of generating the CRPS is provided in Appendix I.

Opportunities to tell the stories of these cultural heritage features and landscapes and heighten public awareness of their importance were explored as a component of the process of developing the CRPS.

(c) Settlements

Historically the settlements of Erindale, Streetsville, Meadowvale and Port Credit were the economic centres that laid the foundation for the establishment of the City of Mississauga. These settlements included mill sites that drove the early economy but relied on the surrounding agriculture industry for survival. Figure 2.14 identifies the locations of these settlements in 1877. Today, some of these settlements are protected as Heritage Conservation Districts. Methods to interpret the history of these settlements and better integrate them within the CRPS were explored and are reflected in the CRPS Master Plan.

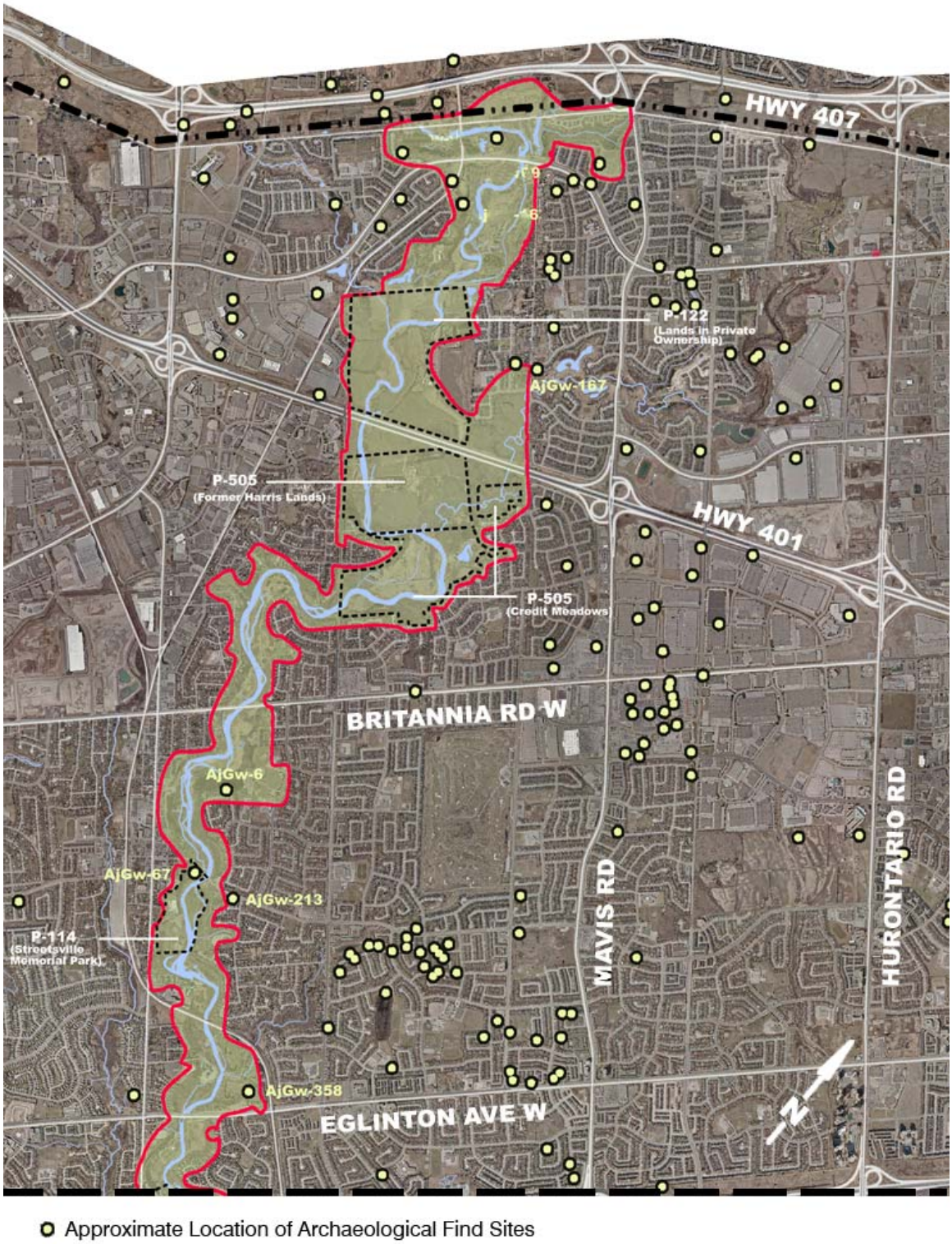
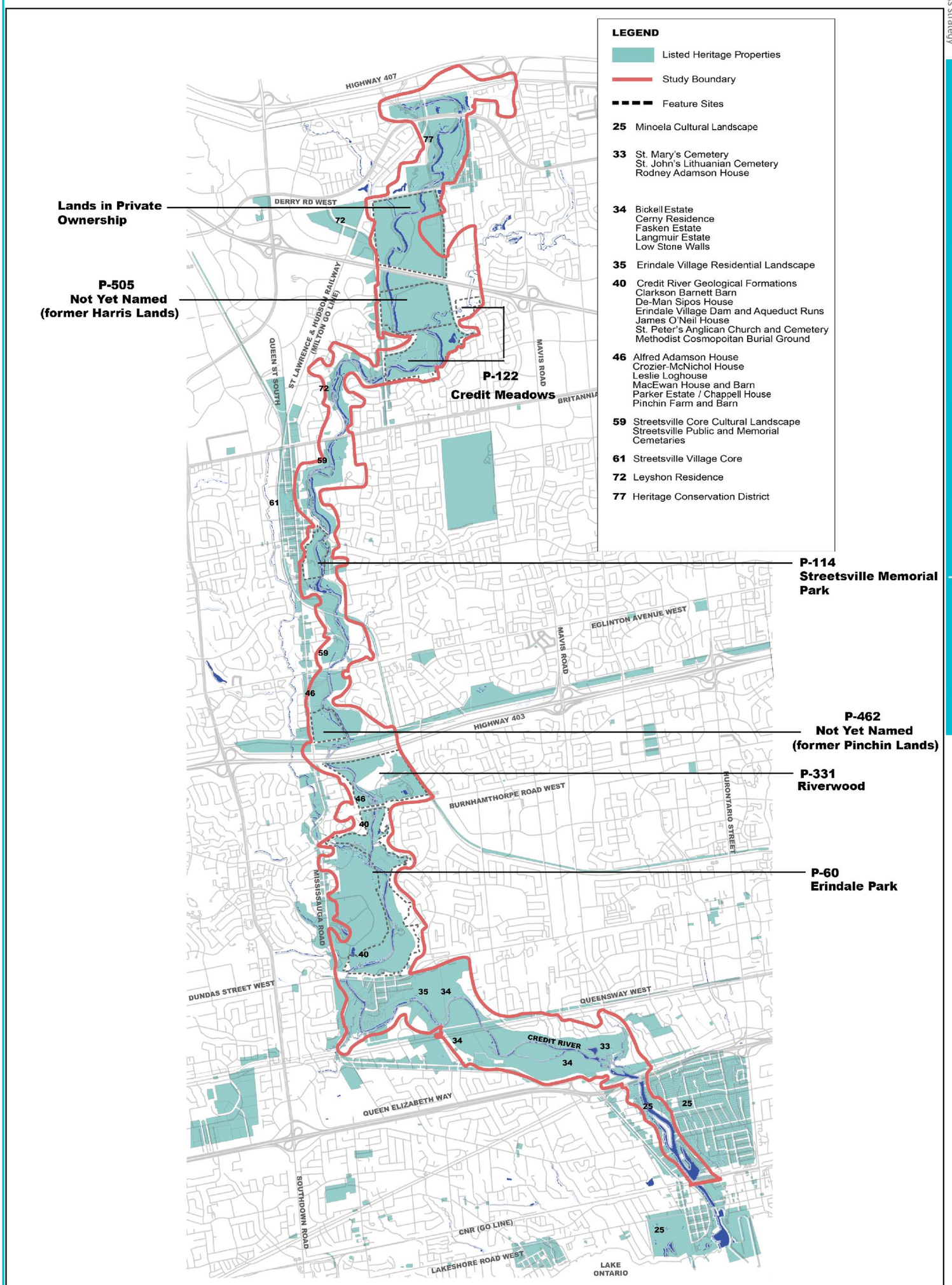


Figure 2.12A: Archaeological Sites (north)

Figure 2.12B Archaeological Sites (south)



data supplied by Mininstry of Culture and Tourism

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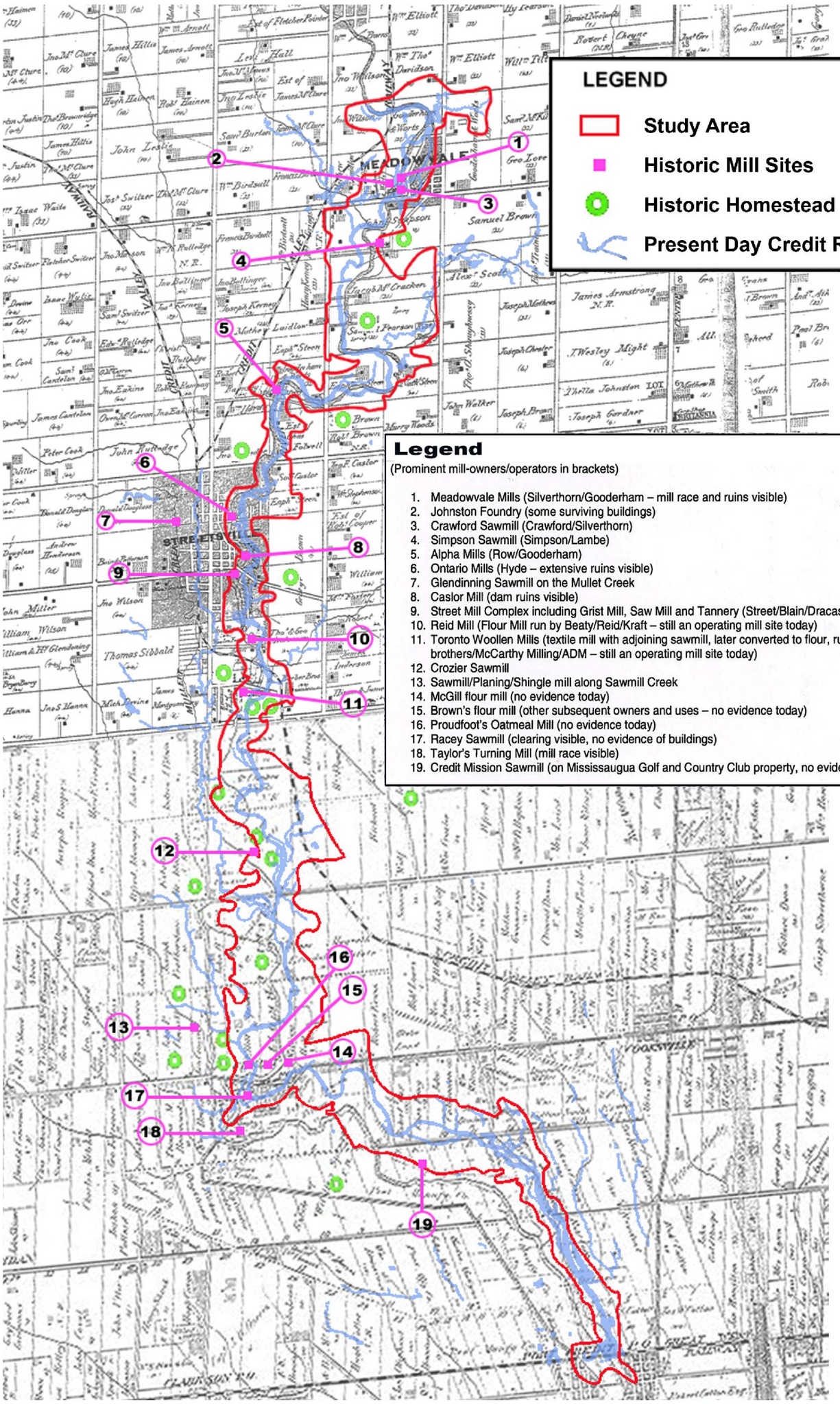
Toronto, Ontario M3B 3J8
Tel: 416.441.3044
Fax: 416.441.5010
Email: design@schollenandcompany.com

credit river parks strategy

NORTH 0 0.5 1.0 1.5 2.0 2.5km

Figure 2.13 : Cultural Heritage Features



Legend

(Prominent mill-owners/operators in brackets)

1. Meadowvale Mills (Silverthorn/Gooderham – mill race and ruins visible)
2. Johnston Foundry (some surviving buildings)
3. Crawford Sawmill (Crawford/Silverthorn)
4. Simpson Sawmill (Simpson/Lambe)
5. Alpha Mills (Row/Gooderham)
6. Ontario Mills (Hyde – extensive ruins visible)
7. Glendinning Sawmill on the Mullet Creek
8. Caslor Mill (dam ruins visible)
9. Street Mill Complex including Grist Mill, Saw Mill and Tannery (Street/Blain/Dracass)
10. Reid Mill (Flour Mill run by Beaty/Reid/Kraft – still an operating mill site today)
11. Toronto Woollen Mills (textile mill with adjoining sawmill, later converted to flour, run by the Barber brothers/McCarthy Milling/ADM – still an operating mill site today)
12. Crozier Sawmill
13. Sawmill/Planing/Shingle mill along Sawmill Creek
14. McGill flour mill (no evidence today)
15. Brown's flour mill (other subsequent owners and uses – no evidence today)
16. Proudfoot's Oatmeal Mill (no evidence today)
17. Racey Sawmill (clearing visible, no evidence of buildings)
18. Taylor's Turning Mill (mill race visible)
19. Credit Mission Sawmill (on Mississaugua Golf and Country Club property, no evidence today)

data provided by Heritage Mississauga

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NORTH 0 0.5 1.0 1.5 2.0 2.5km

Figure 2.14: Built Heritage Features
(Toronto Township Circa 1877, Peel Atlas)

2.5.8.10 Cultural Landscapes

The entire Credit River corridor is listed as a Cultural Landscape in the City of Mississauga's heritage register. Notwithstanding, the development of passive recreational facilities such as trails is permitted. However, trails and other amenities must be planned with regard for this heritage status. Many of remnant mills, or homesteads within the valley and submerged dam sites within the river are not well known by the general public and it is prudent, as a mitigation strategy, to leave these sites undetected for preservation purposes. Dam sites may be sensitively modified to permit navigation.

The Mississaugua Golf and Country Club is the site of the Credit Mission Native Village (1826 until 1847). This is an important cultural resource that warrants interpretation.

Implications
As a general rule, cultural or archaeological sites within the CRPS study area must be appropriately managed in the process of planning new facilities including trails and other amenities. Cultural sites within the study area provide an opportunity for interpretation, focusing on any number of themes. Chappell Terrace, at Riverwood, stands out in this regard as it reveals aspects of Late Iroquoian lifestyles and practices.

New facilities proposed within the CRPS study area must be planned following standard practices with respect to archaeological resource management and conservation. Any activities that may affect known or potential archaeological resources are subject to appropriate identification, evaluation and mitigation through comprehensive archaeological assessment in accordance with the requirements of the Planning Act, Environmental Assessment Act and the Ontario Heritage Act.

2.5.9 Hydrologic Features

2.5.9.1 Water Quality

In general terms, the water quality of the Credit River is good. Water within the river is low in suspended sediment (turbidity), has high dissolved oxygen levels and an average temperature below 23°C throughout the summer months. This situation is due to the high volume of shallow groundwater discharging into the upper Credit River and the maintenance of the dry-weather flows (baseflow). Currently baseflow constitutes of more than 50% of flow in the river, which is exceptionally high.

The Watershed Report Card released by CVC summarizes the water quality monitoring results from 1993-2003.

Generally, water quality stations on the main stem of the Credit River identified a rank of good to fair. The 10-year analysis completed by the CVC indicated that most stations were stable or that the data was too variable to determine significant trends. Notable exceptions included a decreasing water quality trend in urbanized portions of the watershed such as the City of Mississauga.

The Credit River Adaptive Management Strategy (CRAMS) (2005) provides detailed information related to a few key water quality parameters as described below.

The annual geometric means of total phosphorous between 1965 and 2000 illustrated a remarkable feature, namely how a regulatory intervention can cause a dramatic improvement in the water quality of an urban stream. Corresponding to a federal regulation under the Canada Water Act (s. 18), regulating the phosphorus content of laundry detergents, monitored levels of total phosphorous exhibited a significant decrease after 1973.

Following the regulation, the mean annual total phosphorous level in the Credit River at Old Derry Road and Erindale has been near the Provincial Water Quality Objectives (PWQO) of 0.03 mg/L. However, Fletcher's Creek continued to exhibit concentrations that are consistently above PWQO.

The mean monthly concentrations of total phosphorous show peaks in March, a fall during the summer months and a rise in fall and winter. This pattern is attributable to high runoff during the spring thaw which carries much of the phosphorus deposited during winter months from the atmosphere, from pet wastes and residues of fertilizer from landscaped surfaces.

Because phosphorous depletes oxygen from water, it was also observed that mean annual trends in dissolved oxygen recovered dramatically when the levels of phosphorus fell after 1973. A comparison of the mean monthly water temperature and measured dissolved oxygen exhibits a consistent relationship; dissolved oxygen saturation concentrations worsen during summer months.

An evaluation of mean concentrations of total suspended solids from 1965 through 2000 on a monthly basis revealed several patterns. High total suspended solids were primarily expected during high flows associated with spring runoff in March. Secondary peaks in June and July were likely associated with summer thunderstorms. There is a recognizable increase in monthly total suspended solids concentrations downstream of Old Derry Road, through Erindale to Highway #2. This suggested that erosion is more pronounced downstream.

Findings from the recently completed Lake Ontario Integrated Shoreline Strategy (LOISS) (CVC, 2011) provided some perspective from a regional view.

As the largest watercourse within the LOISS Study Area, the Credit River has the greatest effect on most water quality parameters. The Credit River contributes more than two times the combined phosphorus load of the Clarkson and Lakeview Wastewater Treatment Plants to Lake Ontario. As well, it contributes 86% of the suspended solids (2,800,000 kg/yr), 66% of the nitrates (86,000 kg/yr), and 80% of the heavy metals (11,000 kg/yr) entering Lake Ontario. The contribution of ammonia, however, is not dominated by the Credit River; rather, urbanized watersheds contribute 90% of the ammonia while the Credit River contributes less than 1% of the total ammonia entering the Lake.

2.5.9.2 Floodlines

Floodplain mapping that designates the Regulatory Floodplain was mapped for the Credit River within CRPS study area. The Regulatory Floodplain represents the limit of flooding during the Regional Storm which corresponds with the extent of flooding experienced during Hurricane Hazel in 1954. The flood limit is contained within the overall study area and is generally confined within the defined valley feature. As it is CVC's mandate is to prevent, eliminate, or reduce risk to life and property from flooding and erosion, development within the floodplain is regulated. Figure 2.15 illustrates the extent of the floodplain (blue areas) as it relates to the CRPS study area.

Flooding at Credit River - February 12, 2009

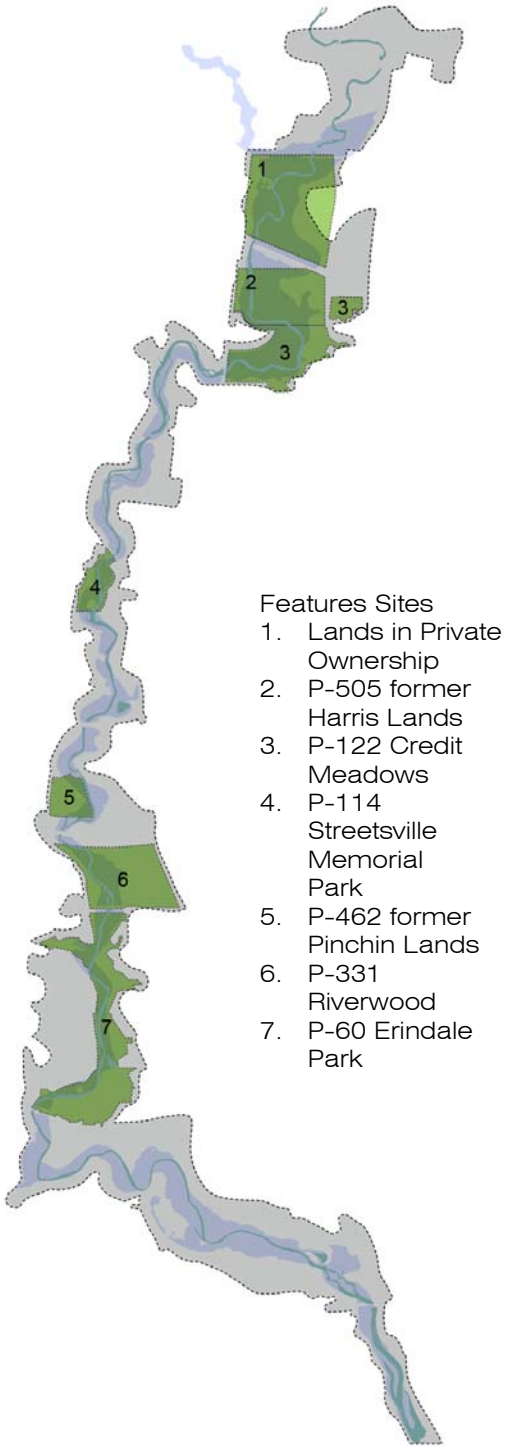


Figure 2.15: Floodplain within the Study Area

2.5.9.3 Meander Belt

The meander belt represents the area that a river channel can reasonably be expected to occupy both now, and in the future, in response to natural channel movement and migration. Meander belt delineation is one component considered in the process of generating hazard mapping within the intent of protecting natural channel processes and protecting private property from erosion. Meander belt assessments along the Credit River have been performed on a reach-by-reach basis. However, a comprehensive study for the entire valley corridor does not exist at this time.

2.5.9.4 Bluffs, Erosion Sites and Control Measures

Erosion is a natural and necessary process that occurs along all watercourses. It is important that erosion processes continue and are not unnecessarily impeded through bank protection or hardening treatments. Related to the CRPS, land uses and recreational activities within the valley system should not exacerbate erosion or require extensive hardening of the channel or banks to ensure their long-term sustainability.

The CRPS incorporates the previous works initiated by the City to assess the CRP System with respect to erosion and proposed channel restoration works. In 2005 the City initiated CRAMS. The main goal of the CRAMS was to develop a rehabilitation plan which promotes improvements to the stability and biological integrity of the river system while recognizing important economic and physical constraints. In the CRAMS, the Credit River was divided into nine major reaches based on the physical characteristics of the river system, and further subdivided into 14 Management Reaches. One of the primary objectives of the CRAMS was to identify erosion sites, evaluate risk to public health and safety, and identify alternatives for restoration.

Mapping was created to document field observations (refer to Figures 2.16A – 2.16D). The sites where erosion is occurring and high banks are involved are indicated in red. The sites where low channel banks are involved are depicted in yellow. Bank protection measures have been implemented at some of the sites. The success and integrity of the protection works varies and affects the erosion ranking. Photographs from vantage points along the river have been provided to illustrate some of the areas of concern. The numbers beside each photo indicate the type of channel adjustment that has occurred, including:

1) Stable;
2) Lateral Migration;
3) Depositional;
4) Enlarging; and,
5) Undercutting.

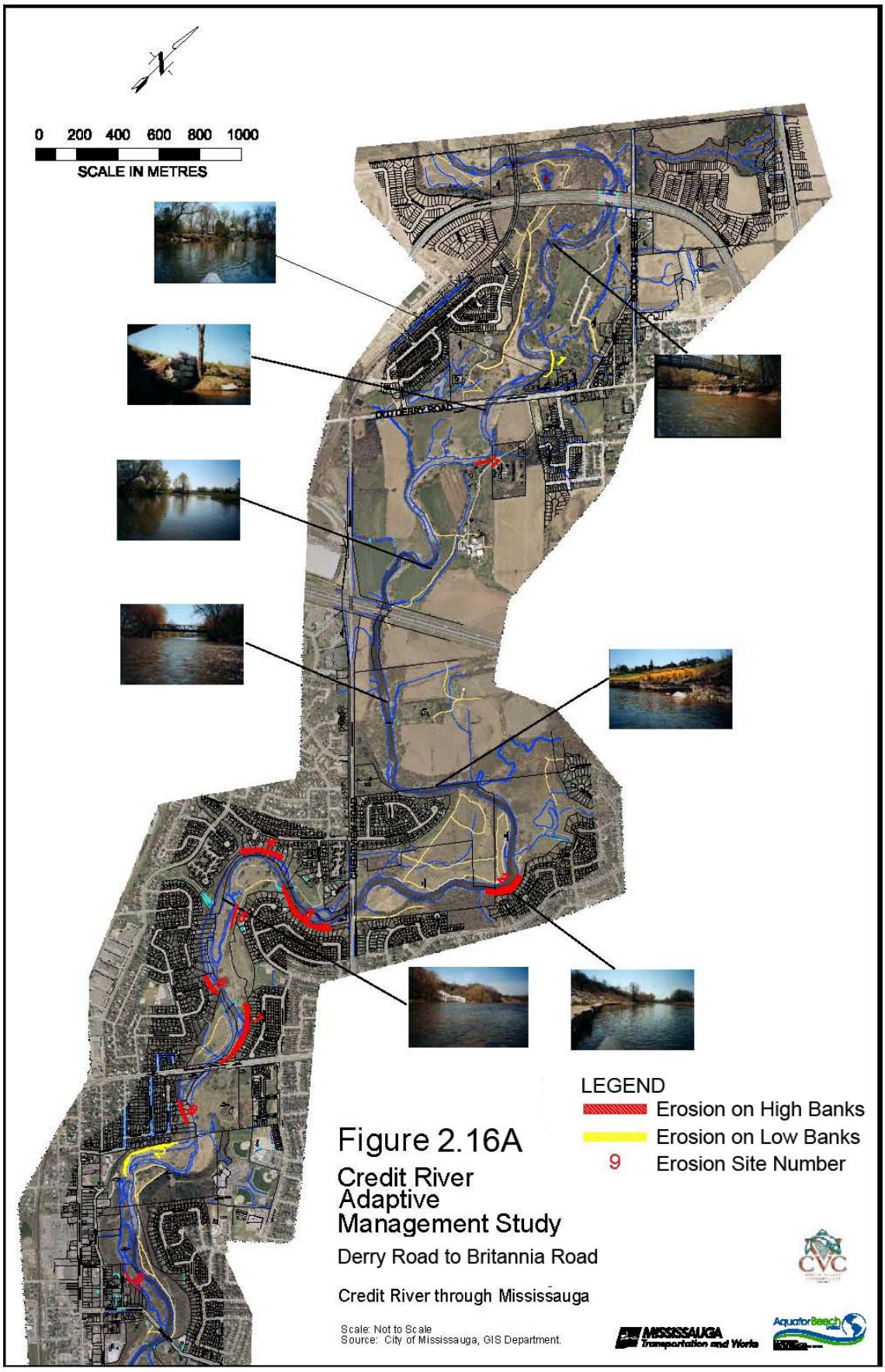
The letter(s) beside each photo indicate(s) the risk associated with the adjustments. These include:

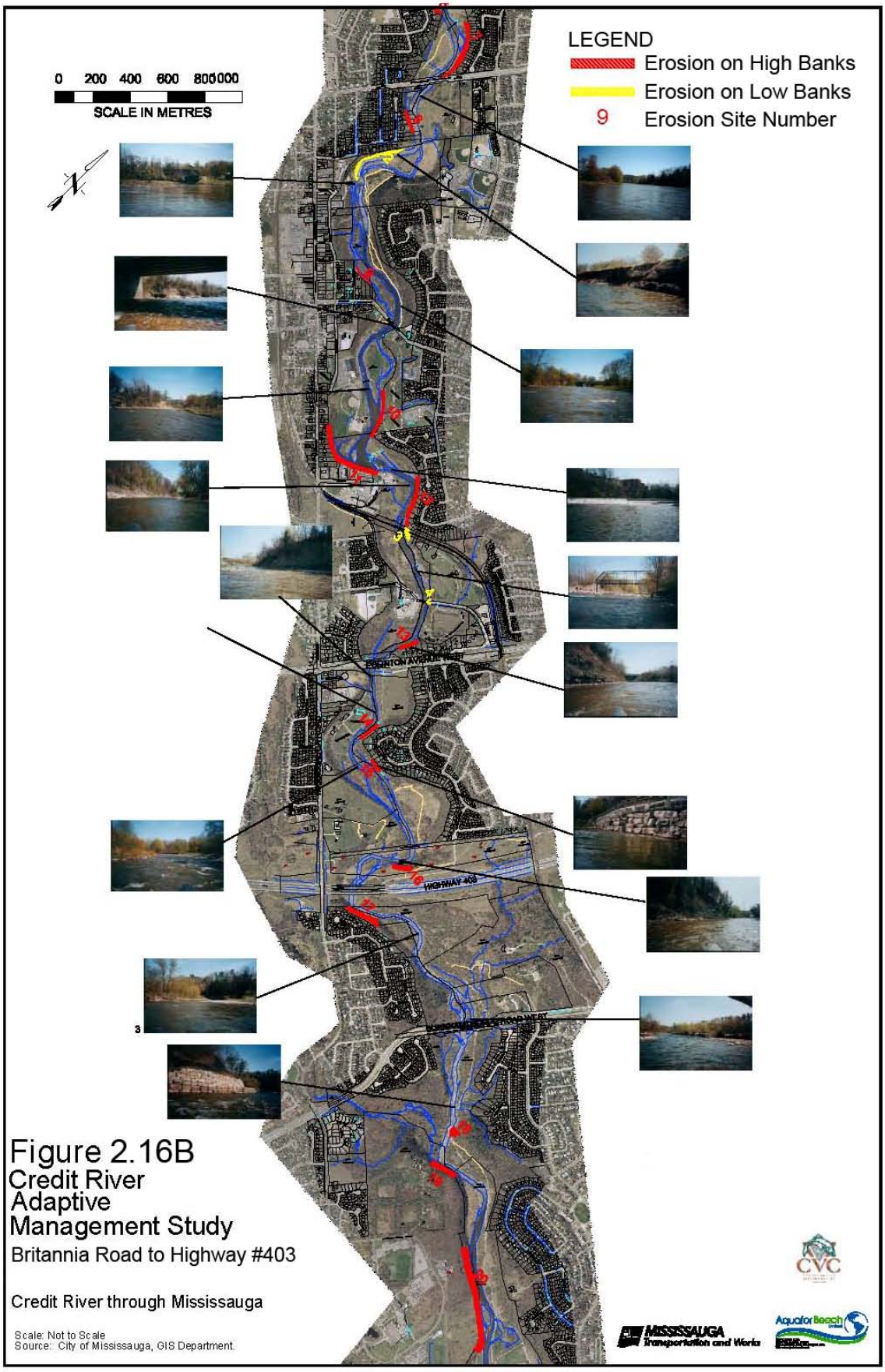
A) Risk to Public (tree and property loss, flooding);

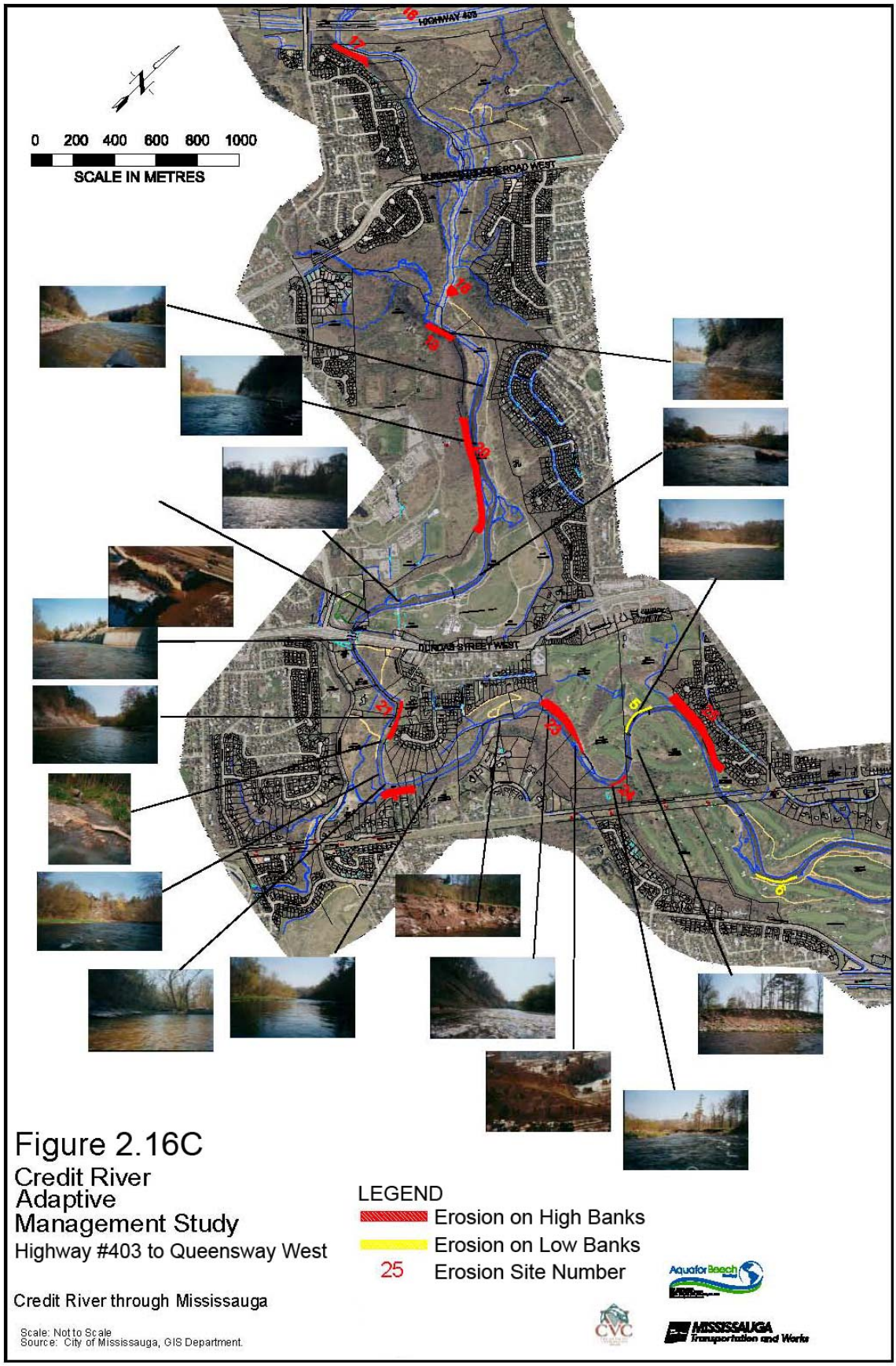
B) Risk to Structures (bridge piers, instream protection, buildings, sanitary sewers);
C) Risk to Fisheries (siltation of bed, unstable riffles, degraded water quality); and,
D) Risk to Terrestrial (floodplain vegetation damage).

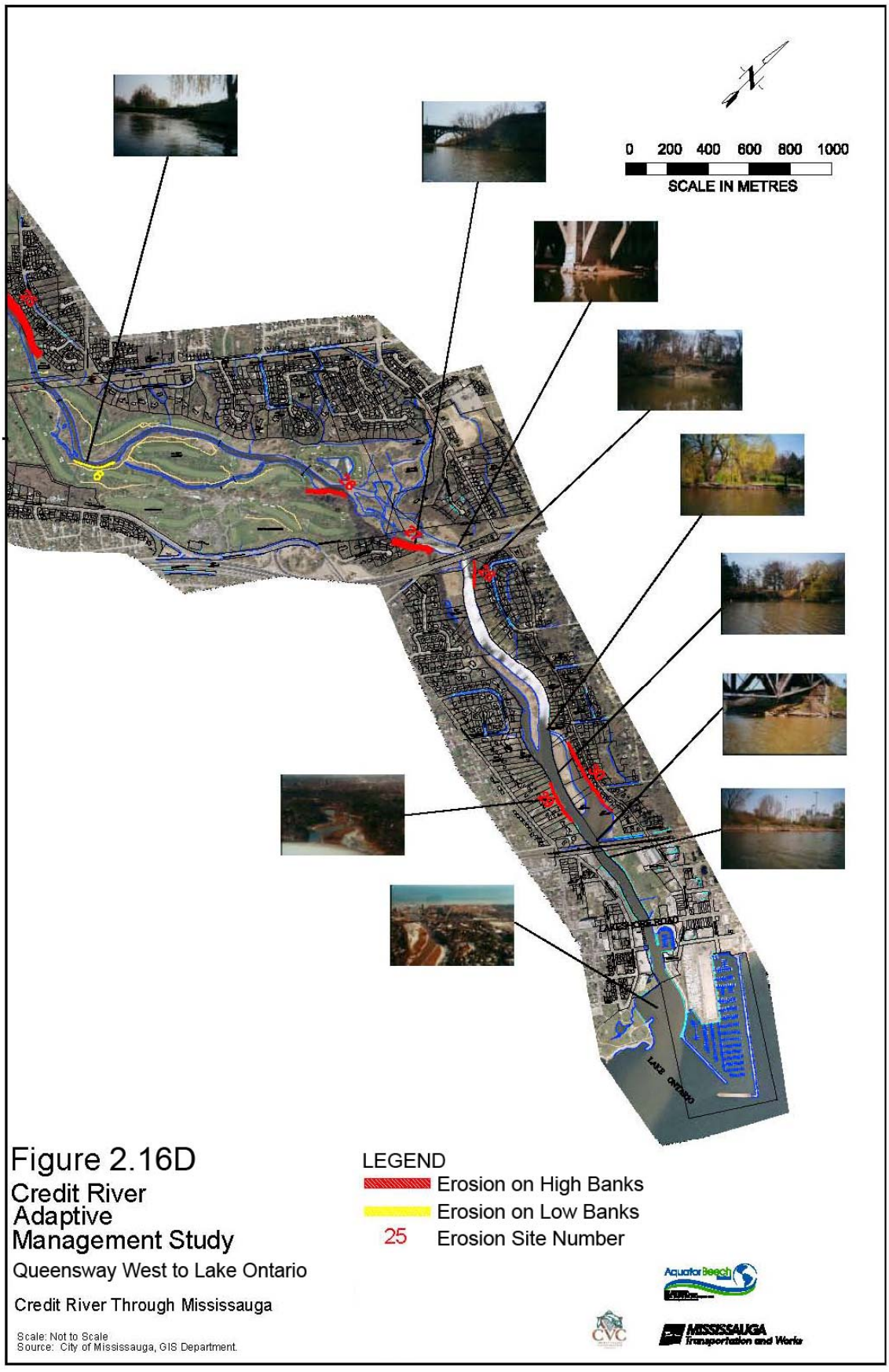
Analyses completed as part of the CRAMS indicated that while down-cutting is occurring within the river, this is a gradual process and that; the predominant mode of adjustment of the Credit River is lateral migration. Adjustments through migration are more likely to impose a risk as erosion of channel banks and valley walls will occur while the channel extends across the floodplain and/or moves downstream. As a result, the degree of anticipated risk to property/public determined the sites which were identified as high priorities for intervention.

The following figures illustrate existing erosion sites, and potential modifications that could be made to resolve the erosion issue. Risks associated with conducting the recommended erosion control initiative have also been identified.


N
0 200 400 600 800 1000
SCALE IN METRES
DERRY ROAD
LEGEND
Erosion on High Banks
Erosion on Low Banks
9
Erosion Site Number
Figure 2.16A
Credit River Adaptive Management Study
Derry Road to Britannia Road
Credit River through Mississauga
Scale: Not to Scale
Source: City of Mississauga, GIS Department.
MISSISSAUGA Transportation and Works
CVC
AquaforBeech


LEGEND
Erosion on High Banks
Erosion on Low Banks
9 Erosion Site Number
0 200 400 600 800000
SCALE IN METRES
Figure 2.16B
Credit River
Adaptive
Management Study
Britannia Road to Highway #403
Credit River through Mississauga
Scale: Not to Scale
Source: City of Mississauga, GIS Department.
MISSISSAUGA
Transportation and Works
Aquafor Beech


HIGHWAY 403
DUNDAS STREET WEST
0 200 400 600 800 1000
SCALE IN METRES
Figure 2.16C
Credit River
Adaptive
Management Study
Highway #403 to Queensway West
Credit River through Mississauga
Scale: Not to Scale
Source: City of Mississauga, GIS Department.
LEGEND
Erosion on High Banks
Erosion on Low Banks
25 Erosion Site Number
Aquafor Beech
CVC
MISSISSAUGA
Transportation and Works


0 200 400 600 800 1000
SCALE IN METRES
Figure 2.16D
Credit River
Adaptive
Management Study
Queensway West to Lake Ontario
Credit River Through Mississauga
Scale: Not to Scale
Source: City of Mississauga, GIS Department.
LEGEND
Erosion on High Banks
Erosion on Low Banks
25 Erosion Site Number
Aquafor Beech
CVC
MISSISSAUGA
Transportation and Works

A prioritized restoration plan for 25 erosion sites was prepared as a product of the CRAMS, and is summarized in Appendix G. The City identified a schedule for completion for the top 6 priority sites by 2018. Dates of proposed works are identified on Figure 2.18, some of which have already been completed or are underway. The locations of the six priority erosion sites do not coincide directly with the CRPS "Feature Sites". Due to the dynamic nature of the system, additional monitoring is recommended to determine whether there are any new erosion sites that pose a risk to public health and safety or whether previously identified sites should receive greater priority for restoration.

2.5.9.5 Ice Conditions

Ice breaker in Erindale Park

Initial discussions with the City of Mississauga and the CVC identified issues related to ice movement within the lower sections of the Credit River as a concern. Issues related to ice conditions include mass erosion as well as jamming and potential flooding. Restoration works as proposed are intended to address potential stresses caused by floating ice through the appropriate placement of protection measures. With regard to the CRPS, when assessing alternative locations for the placement of bridge structures, attention was paid to ice movement and flooding potential. The potential impacts of ice movement, erosive flows and patterns of sediment deposition are important considerations to inform the location and design of trails and other amenities in the vicinity of the river.

2.5.9.6 Riverine Structures

Structures such as dams (i.e. Kraft dam), weirs, bridges and revetments are located throughout the river corridor. Another permanent structure which spans the Credit River is the ice management structure at Erindale Park. Although the primary function of these dam structures is flood control, they are also used to partition fish species from competing with one another (Credit River Fisheries Management Plan, 2002).

Figure 2.21 provides an illustration of the various bridges and other structures that are located within the CRPS study area.

2.5.9.7 SWM Facilities/ Outfalls

The City of Mississauga initially undertook the Mississauga Storm Water Quality Control Study in 1996. The objective of this study was to develop a city-wide strategy to implement storm water controls required to service development sites. The

strategy was developed to provide more efficient protection of the City's watercourse systems in accordance with all applicable regulations and guidelines, and at reduced construction costs (to developers) and maintenance costs (for the City). An update of this study is currently underway. Additionally, the City of Mississauga has compiled an inventory of locations where future SWM ponds and erosion control works are proposed. These features are located on Figure 2.17.

Figure 2.17 also provides an overview of the existing stormwater and storm sewer facilities within the Credit River Parks study area.

It should be noted that the multitude of storm sewers that convey rainwater to the Credit River results in higher flow rates in the river. The combination of higher flow rates and flow volumes typically results in an increase in erosional stresses on the riverbed. Additionally, water quality within the river can become degraded as a result of these inputs. Some effects of rainwater discharged from storm sewer outfalls typically include:

- Influx of nutrients, which result in algae blooms and thus visual degradation of the waters (excessive levels may also result in depleted levels of oxygen within the river);
- Influx of heavy metals, which may bioconcentrate in fish;
- Increase in bacteria, which reduce recreational opportunities in Lake Ontario;
- Influx of fine sediment from construction phases;
- Thermal impacts which also effect oxygen;
- Introduction of general contaminants (e.g. suspended solids) which decrease the clarity of the receiving bodies of water, thereby degrading aesthetics; and,
- Potential for spills, which can result in visual degradation and depending upon the type of contaminants released may be toxic to aquatic life or potentially pose a threat to human health.

To mitigate some of these effects the City of Mississauga has implemented 24 SWM ponds within the Credit River watershed five of which are located within the study area. The facilities provide a variety of water quality and quantity benefits. The existing facilities (ponds) are identified on Figure 2.17 as:

- 5301
- 5303
- 4504
- 4501
- 2401

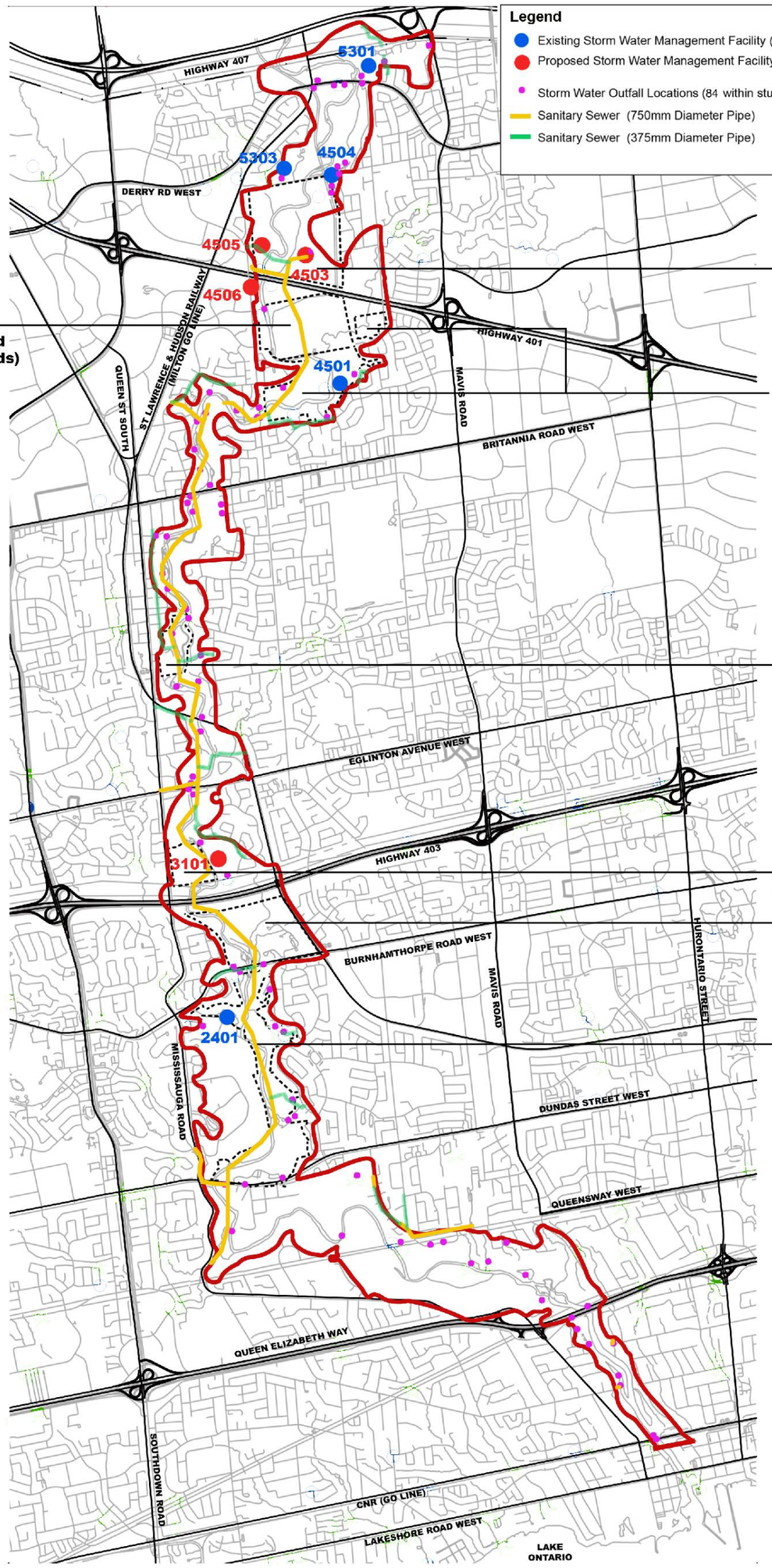
Additionally, the City of Mississauga has compiled an inventory of locations where future SWM ponds are proposed (City of Mississauga Development Charge Background Study: Storm Drainage Component, 2009). The initiatives are summarized in Section 2.5.9.8.

There are three new ponds proposed to be implemented within the study area identified on Figure 2.17 as:

- 4503
- 4506
- 4505
- 3101

The Water Quality Storm Water Control Strategy Update study is also examining the potential to incorporate source control and conveyance control measures within the City in order to improve water quality within receiving streams including the Credit River.

An example of this is in the main parking lot for Riverwood which was retrofitted in 2005 with a bioswale, a Low Impact Development (L.I.D.) method. The swale is designed to moderate the quantity and improve the quality of stormwater runoff discharged from the parking lot to the existing pond, MacEwan Creek and ultimately the Credit River.



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NORTH 0 0.5 1.0 1.5 2.0 2.5km

credit river parks strategy

Figure 2.17: Existing Storm Water Pond and Outfall Locations

2.5.9.8 Proposed Stormwater Facilities & Erosion Control Works

The proposed locations of new stormwater facilities and erosion control works within the City are illustrated in Figure 2.18, as of December 2012 (scheduling subject to change annually). Those relevant to the study area are characterized below by implementation year-reference number and include:

- *In-Progress* – CRED-1200/1500-01 – Credit River Erosion Control: North of Eglinton Avenue West/South of Britannia Road West;
- 2014 – CRED – 2000-01 – Behind Steen Drive
- 2018 – CRED-0300-01 - Credit River Erosion Control: S. of QEW, behind Pinetree Crescent ;
- 2018 – CRED-0400-01 - Credit River Erosion Control: North of QEW behind Mississauga Cres. ;
- 2020 – CRED-0200-01 - Credit River Erosion Control: North of CNR, behind Stavebank & Mississauga Road;
- 2022 – CRED-0500-01 - Credit River Erosion Control: Adjacent to Ostler Court;
- The proposed stormwater pond illustrated at location 4503 is expected to be implemented in 2015 within the Lands in Private Ownership "Feature Site". This facility is proposed as a single cell for quality and quantity control. The location is being considered within the floodplain or further east on the tableland portion of the "Feature Site."
- The proposed stormwater pond illustrated at location 4505 is proposed as a single cell for quality control. The location is proposed partly in the floodplain.
- The proposed stormwater pond illustrated at location 4506 is proposed as a single cell for quality control. The location is proposed outside of the floodplain.
- The proposed stormwater pond illustrated at location 3101 is proposed as a single cell for quality control. The location being considered is outside the former Pinchin lands "Feature Site" and either outside of the floodplain in the Hydro corridor or within the floodplain adjacent the Credit River.
- Site 5301 marks the location of rehabilitation works required to an existing SWM facility within the Fieldrun subdivision. These works are anticipated to be completed in 2016.

The works listed include those sites proposed in the current 10-year horizon, other sites are proposed outside of this forecast.

It should be noted that the Capital Works forecast is reviewed annually and proposed priorities, facility locations and schedules for implementation are subject to change.

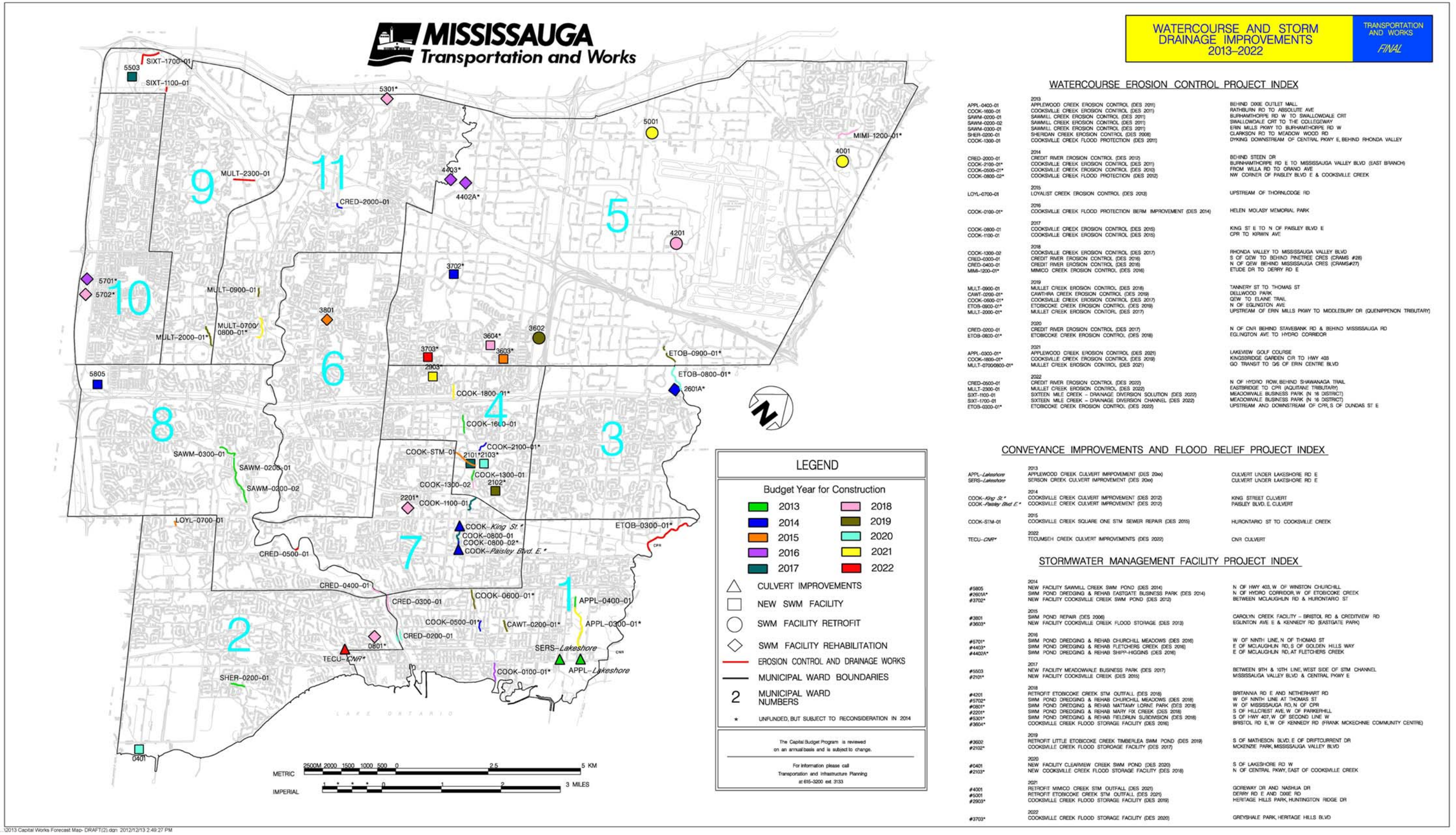
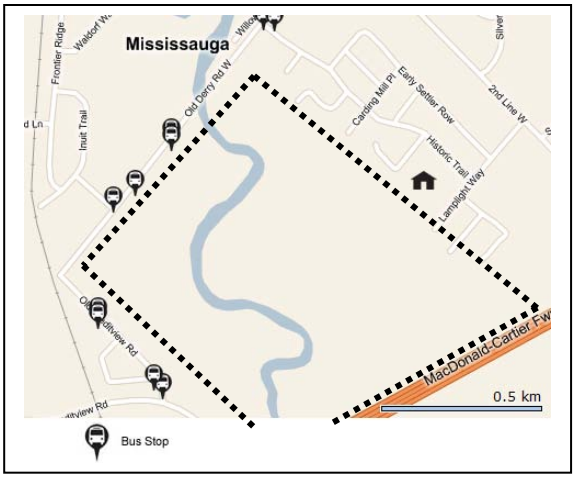


Figure 2.18: Proposed Future Erosion Control and SWM facilities Schedule

2.5.10 Transportation and Transit Context

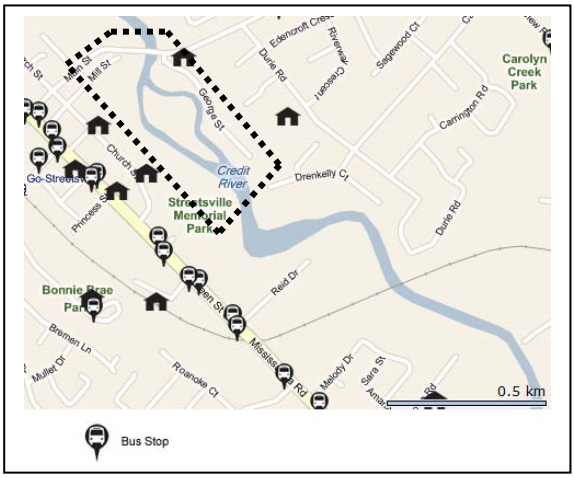
2.5.10.1 Transit Network – Regional and Local

Overall, the CRPS study area is relatively well-served by transit and affords a good degree of connectivity with the City's cycling network. Each of the seven "Feature Sites" are located within walking distance to an existing bus route. The series of maps below provide an illustration of the transit routes that are proximate to each of the "Feature Sites". (source: www.mississauga.ca/ClickNRide). It should be noted that bus routes and the locations of bus stops are subject to change. The following figures illustrate transit routes and transit stop locations current to the time that the CRPS was prepared.

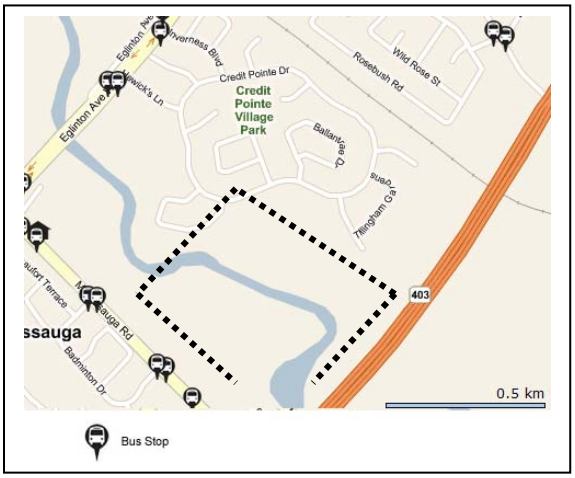


Lands in Private Ownership North of Highway #401

The former Harris lands (Not Yet Named Park #505) & Credit Meadows (Park #122)



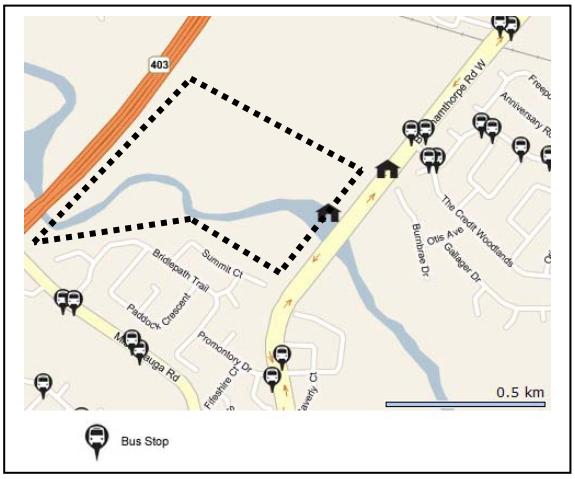
Streetsville Memorial Park (Park #114)



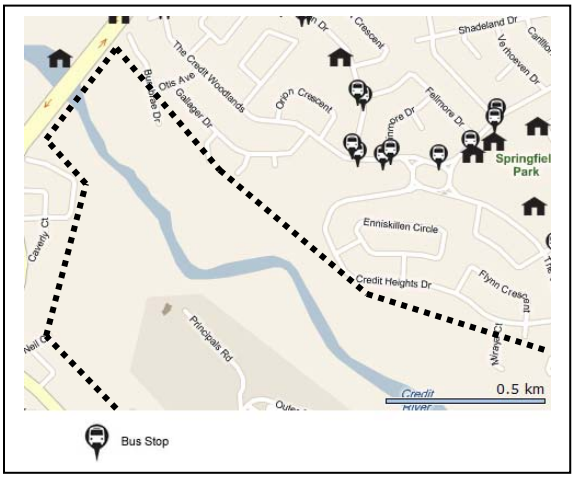
The former Pinchin lands (Not Yet Named Park #462)

Figure 2.19A: Existing Transit Stops Near "Feature Sites" (Private Ownership, Park #122, Park #114 and Park #462)

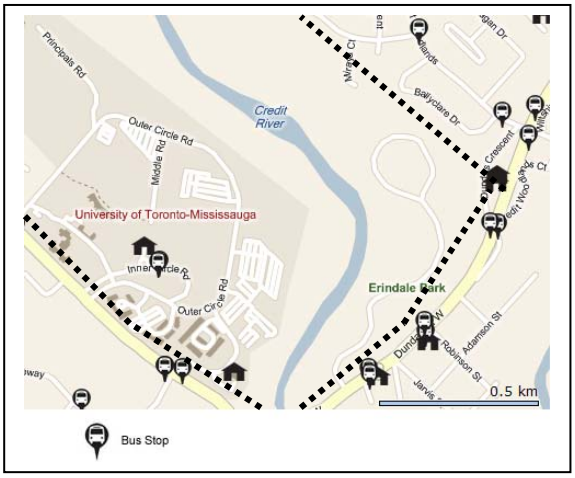
The CRPS endeavours to capitalize on available transit by creating access points into the CRP system within proximity to existing transit stops and/or recommending additional stops at key locations. This will afford the opportunity for the CRP System to serve as a recreational, social and environmental amenity to a wider constituency.



Riverwood (Park #331)



Erindale Park (Park #60)



Erindale Park (Park #60)

Figure 2.19B: Existing Transit Stops Near "Feature Sites" (Park #331 and Park #60)

2.5.10.2 Cycling Network

The City of Mississauga has prepared a comprehensive Cycling Master Plan to guide the development of over 900km of on-road and off-road cycling routes throughout the City over the next 20 years. The vision for the Cycling Master Plan is stated as follows:

> *"Cycling will become a way of life in the City of Mississauga that supports vibrant, safe and connected communities. Mississauga will be a place where people choose to cycle for recreation, fitness and daily transportation needs enhancing our overall health and quality of life."*

The plan is focussed on the following:

- Fostering a culture where cycling in a way of life;
- Building an integrated network of on road and off route cycling routes as a component of a multi-model transportation system; and,
- Adopting a "safety first" approach to cycling.

The plan provides a multi-model approach to transportation, connecting destinations while positioning 95% of the population within 1km of a primary cycling route. The plan is aimed at connecting all major natural and cultural destinations with the cycling network. Within the CRP system, the existing Culham Trail is identified as an integral component of the overall cycling network. The development of the CRPS presents the opportunity to implement key components of the cycling network as envisioned in the Cycling Maser Plan.

The existing and proposed routes are identified in the approved City of Mississauga Official Plan. Existing and proposed cycling routes are illustrated on Figure 2.20.

2.5.10.3 Trail Network

The CRPS study area encompasses the Culham Trail as well as a host of local trails. Currently segments of the Culham Trail extend north to south through the following locations:

- Derry Road West currently terminating at the north limit of the City within the Meadowvale Conservation area;
- Creditview Road to Vic Johnston Arena (Streetsville Memorial Park);
- ADM Milling to Credit Pointe Drive; and,
- Wellsborough Place through Riverwood and Erindale Park to Dundas Street West.

At Streetsville, the Culham Trail is diverted out of the valley and follows the street fabric as the private property associated with the Kraft Mill limits public access. The trail also deviates from the valley west of Creditview Road. The trail traverses the river at several points with bridges affording long views up and down the river.

Local trails within Riverwood and Erindale Park connect to the Culham Trail and offer users different landscape experiences. The trails that extend down into the valley at Riverwood are less well developed. A series of boardwalks provide access across periodically inundated areas. Within Riverwood itself connections between elements are somewhat tenuous. For example, pedestrians wishing to walk from the Chappell House to the VAM complex and the MacEwan Terrace Garden must utilize internal roads. The trail that leads from the Chappell House into the valley has been closed to public access as the stairway is unsafe for public use. A fenced off area within the valley also impedes connectivity.

The southern segment of Credit River valley is broad and deeply incised and as a result, road crossings are limited to major thoroughfares and bridge structures are high and span the width of the valley. These high structures afford ample clearance to accommodate trails within the valley. However, the steep-sided valley slopes do challenge the ability to provide practical connections from these major thoroughfares into the valley. Trails leading down the valley side slopes are difficult to negotiate and inaccessible for some users. Stairs have been installed in some locations to overcome grades, a condition that presents accessibility and maintenance issues. There are opportunities to enhance connectivity between the valleyland trail system and the communities, parks and open spaces adjacent the valley. In addition, specific consideration needs to be given to the relationship between the University of Toronto Mississauga (UTM) campus and the river corridor from the perspective of circulation and connectivity. Presently it is intended that the campus be physically isolated from the river and a fence has been installed along the property line. However, breaches in the fence and ad-hoc trails indicate a desire for better connectivity in order to address practical circulation and access issues. Ongoing consultation with representatives of UTM will be essential to arrive at the best solution to address this interface condition.

Public access within the valley south of Erindale Park is limited by private land ownership. Both the Mississaugua and Credit Valley Golf and Country Clubs own and occupy the valley within this sector. Canoe access is available through this reach and downstream to Lake Ontario.

The Culham Trail is typically 3.5m wide and is surfaced in granular. It accommodates walking, hiking, cycling and running and provides access along the river for anglers and nature enthusiasts. The trail is relatively easy to negotiate although there are some steep sections to traverse as the trail winds up the valley slopes. Parking to accommodate trail users is available at key points along the length of the trail, including Erindale Park, Riverwood, Hewick Meadows and Streetsville Memorial Park. Limited parking is provided at Credit Meadows. The Culham Trail is maintained in relatively good condition and is a popular and well used recreational amenity.

Ultimately, once gaps in the trail system are implemented, the trail will span 18km connecting the various parks within the Credit valley.

Bridges in Relation to Pedestrian/ Cyclist Access

A number of roads bisect the CRPS study area and footbridges provide access to the east and west sides of the Credit River depending on limitations for access within the landscape such as wetland areas or braided river segments. In most cases vehicular bridge crossings do not impact accessibility as most bridge structures afford appropriate vertical clearances for pedestrian and cyclist access beneath (3.0-3.5m) as well as adequate space to accommodate a trail. There are exceptions however. These include:

- A low clearance bridge at the Credit Meadows on Creditview Road (2.5m ht);
- Highway #403 between Pinchin Lands and Riverwood – armouring of river would be required to accommodate a trail;
- Derry Road – low head clearance;
- A farm track beneath bridge at Highway #401 utilized currently by Sanford Farms requires stabilization to make it safe for public access; and,
- An existing bridge at Old Derry Road at the Credit River with low head clearance.

Low clearance height at Creditview Road

Overall the north/south connectivity of the system requires only minor improvements to afford unimpeded access.

Site visits were conducted in late summer and fall 2010 as well as January 2011 to determine the general condition of access points and trails. Existing boardwalks, newly installed stairway structures (at Meadowvale Conservation area) and footbridges appear to be in reasonable condition but will require maintenance in the future. The Culham Trail is generally in good repair and widely accessible, however, many parts of the trail are located within the floodplain parts of the trail are at risk of becoming undermined due to periodic severe flood events. Erosion sites of concern are identified on Figures 2.16A-D.

Riverside trail within Credit Meadows is in floodplain and at risk of periodic flooding

2.5.10.4 Road Network

The road network in Mississauga evolved around the valley corridor. Road crossings of the valley are limited to arterial roads and freeways. The local road fabric rarely encroaches on the valley. There is potential to improve connectivity between the valleyland trail system and the existing road network. However, in most cases, the transition from the valley floor to the street fabric necessitates overcoming significant changes in grade. This condition is less severe in the areas north of Britannia Road West.

Figure 2.20 provides an illustration of planned road improvements. Although the timing for implementation is undetermined at this point, a major road widening and infrastructure improvement program is currently being planned for Highway #401. The Environmental Assessment (EA) process for this project was initiated early 2011. The EA process for the widening of the QEW is presently under way and this study may have implications on the Credit Valley.

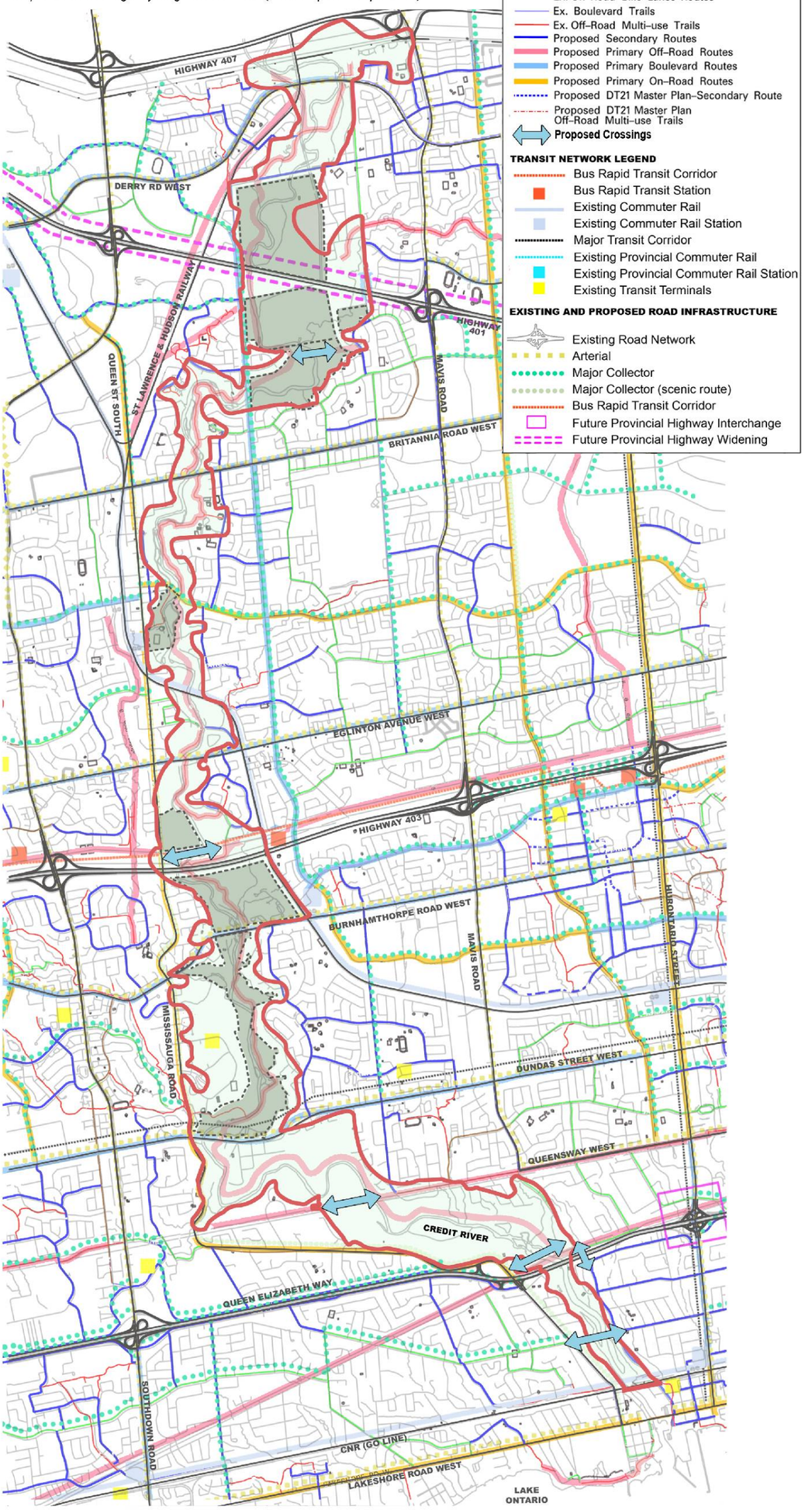
There is potential to improve connectivity of the trail system and proposed crossings in conjunction with the planned highway infrastructure improvements. City staff are currently working with the Ministry of Transportation on these opportunities.

2.5.10.5 Railway Network

Railway lines that traverse the study area are illustrated on Figure 2.20.

The rail alignments which transect the study area may present constraints related to the connectivity of trails. The implementation of trails adjacent to the rail lines will require the approval of the relevant railway authority. At minimum, it is anticipated that robust fencing would be installed to provide security along the length of trails abutting rail lines. The implementation of fencing, provision of maintenance, enforcement of safety precautions and monitoring would become the responsibility of the City of Mississauga where trails cross or abut railway corridors.

** map adapted from Schedule 4, Road and Transit Network Long Term Concept (Mississauga Official Plan - April 2010), Appendix A, Map 1, Transportation Facilities Other Jurisdictions (Mississauga Official Plan – July 2007) and Map 5-2 Mississauga Cycling Master Plan (Final Report – Sept. 2010)*



adapted from Schedules 5 & 6 Official Plan September 2010

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NORTH 0 0.5 1.0 1.5 2.0 2.5km

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Figure 2.20: Circulation Network

2.5.11 Service and Infrastructure Context

2.5.11.1 Hydro Transmission Network

Two hydro corridors cross the study area in an east-west alignment. The corridors are shown on Figure 2.21. One is located at the north end of the study, south and parallel to Highway #407, and the other is located south of Eglinton Avenue.

Development of recreational facilities on lands owned by Hydro One is subject a number of conditions as described below. In addition, it should be noted that Hydro One protects its rights for full access by maintenance equipment to their lands. The implementation of trails or other recreational facilities with right-of-way lands will require prior approval by Hydro One. The City will be obliged to enter into an agreement for shared use with Hydro One. Trails will need to be designed to ensure that a vertical clearance of 3.2m is maintained between active conductors and that suitable surfacing and grading to enable maintenance vehicles to access the corridors is provided. Currently Hydro One requires a minimum 15m horizontal clearance from all hydro poles and towers from any proposed obstruction. Hydro One also places limitations of the types and heights of plant material that can be located within a right-of-way. These provisions are subject to change over time. Notwithstanding, hydro corridors do present opportunities for recreation, habitat, enhancement and improved habitat connectivity.

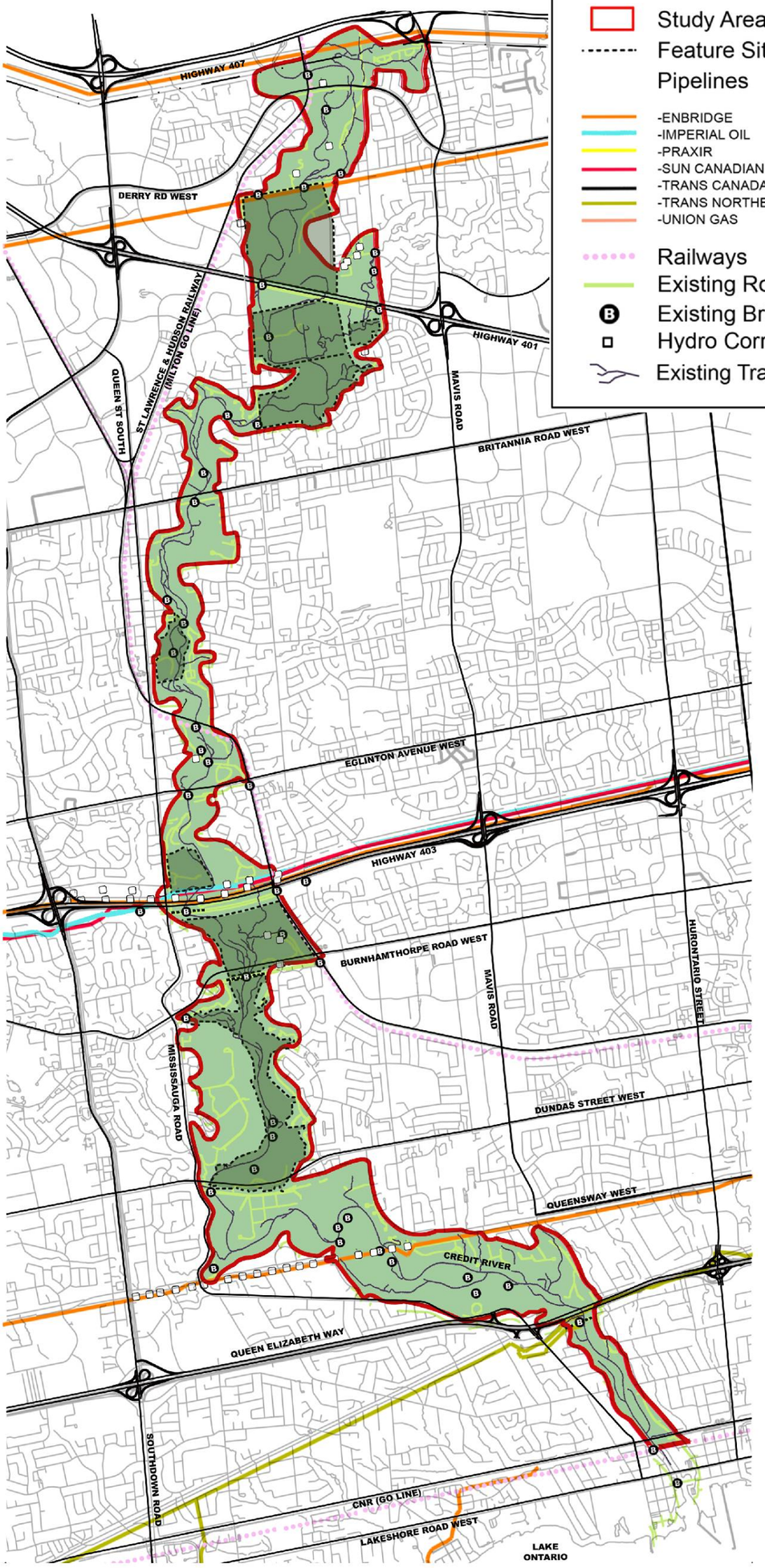
2.5.11.2 Natural Gas Distribution Network

The Ontario Regulations for gas pipelines were developed from a series of documents that generally deal with the implementation of new pipelines. However, the report "*Land Use Planning for Pipelines: A guideline for local authorities, developers, and pipeline operators*," Canadian Standards Association, Plus 663, (August 2004) proposes that, at a minimum, consultation take place if a proposed development is to be located within 200m of the centreline of a pipeline. This guideline also recommends consultation for development beyond 200m of the centreline of a pipeline when a proposed development is within a setback or emergency response planning zone associated with a given type of pipeline (e.g., some high-vapour-pressure or sour natural gas pipelines). The locations of gas pipelines within the CRPS study area are shown on Figure 2.21.

For smaller gas pipelines, the responsibility for safety setbacks and "hazard distances" is borne by the municipality. These pipelines generally operate at lower pressures than the transmission pipelines that are owned and operated by local distribution companies.

Further consultation with Enbridge, Trans Canada Pipeline (TCPL), and the City of Mississauga will be required to verify the size and depth of pipelines within the study area, determine required setback distances and confirm regulations governing the easements prior to the implementation of trails or other proposed amenities in the vicinity of pipeline easements.

* map adapted from Schedule 5 and 6, Sept 2010 in Mississauga Official Plan



data compiled from aerial photography and City of Mississauga database

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Figure 2.21: Services and Infrastructure within Study Area

NORTH 0 0.5 1.0 1.5 2.0 2.5km

2.5.11.3 Oil Pipeline Network

Oil pipelines, whether active or inactive, are subject to more restrictions than Natural Gas pipelines. Proponents wishing to conduct construction near an oil pipeline are restricted by Federal Regulations to remain outside a safety zone of approximately 3m either side of the pipeline. Although the interpretation of this zone ultimately is determined and enforced by each independent oil pipeline company proponents wishing to gain access across an oil pipeline are required to apply for crossing permits and enter an agreement with the oil pipeline company, prior to breaking ground. The location of oil pipelines that traverse the study area is shown on Figure 2.21.

2.5.11.4 Cellular Communications Infrastructure

There is one prominent communication tower within Erindale Park. This communication tower does not pose a constraint.

2.5.11.5 Sanitary Sewer Network

The location of the Region of Peel's sanitary trunk sewer system is illustrated on Figure 2.17. Within the CRPS study area, there are 31 locations where sanitary sewers cross the main channel of the Credit River. When works are proposed in the vicinity of sanitary sewers, it is necessary to ensure that a sufficient depth of cover is maintained to protect the underlying sewer. It is also important to note that the removal of vegetation is often necessary within sewer easements in order to enable access. As a result, tree planting is not recommended within sewer easements.

2.5.11.6 Former Landfill Sites

Erindale Park contains an old landfill site which is still visable within the landscape. An old farm dump site is contained below the valley slopes of the former "Pinchin Lands" "Feature Site". These sites pose certain restrictions on the actions that can be implemented within their boundaries including the implementation of restoration plantings or the construction of structures that may compromise the integrity of the capping layer.

2.5.12 Visual Resources

2.5.12.1 Views and Vistas

Viewsheds were assessed as a component of the inventory process. The locations of significant views are generally comprised of internal local views, internal long valley and external views. The views are illustrated on the Photographic Survey/ Assessment maps Figures 2.23A and 2.23B (pg. 124-125).

Internal Local Parkland Views

These views were observed in open landscape settings, capturing a number of visual landscape elements in one direction.

Internal Long Views

Long expansive views up and down the river valley are provided at footbridges which cross the river as well as at major road crossings. Views from the very north end of the study area southward provide dramatic vistas over the broad, flat river valley.

External Views

These views rely on elevation and are often provided at trailheads or along roads leading into parks. In some locations, such as in the very north end of the study area, views to the surrounding regional urban/ business centres at Creditview Road and Derry Road West, the Mississauga downtown area, or expansive views westward along the hydro corridor are provided. Other dramatic views are afforded across the valley from trails which connect to the river valley from residential areas. Examples of these include views from the access points along the east and west valley slopes of Erindale Park.

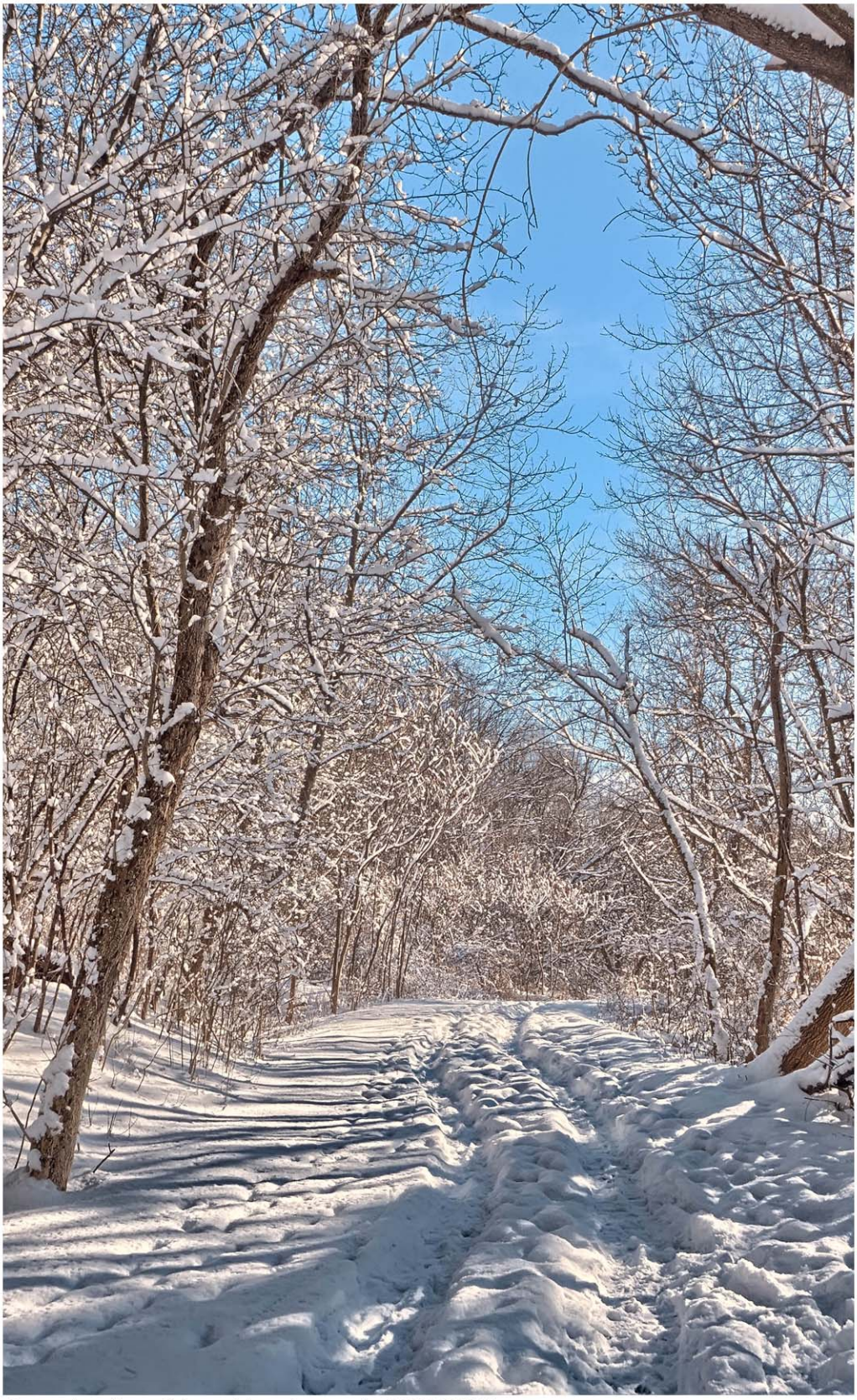
Other external views to downtown Mississauga are available at major road overpasses such as the Burnhamthorpe Road and Highway #403 overpasses between Riverwood and the former Pinchin Lands (P-462) “Feature Site”.

2.5.12.2 Landmarks and Visual Features

There are a number of landmarks within the study area that contribute to the visual prominence and character of the study area. Key features that were observed through field review include:

- Kraft Mill site;
- Landforms – valley slopes, former landfill sites;
- Footbridges and vehicular crossings;
- Large infrastructure/ overpasses;
- Dams, stormwater outfalls and ice jam break up structures;
- Farmlands;
- Outbuildings and farm houses;
- Hedgerows;
- Apartment buildings/ urban centre in context to the study area;
- ADM Mill;
- The QEW / Credit River Bridge;
- The Burnhamthorpe Road West Bridge;
- The Highway #401 / Credit River Bridge;
- The Eglinton Avenue West Bridge;
- The Lower Credit River marshes;
- The Mississaugua and Credit Valley Golf and Country Clubs; and,
- Hydro towers.

2.6



Source: http://www.flickr.com/photos/mustangjoe/8483558566/

2.6.1 "Feature Sites"
2.6.1.1 Lands in Private Ownership North of Highway #401
2.6.1.2 P-505: (former Harris Lands)
2.6.1.3 P-122: Credit Meadows
2.6.1.4 P-114: Steetsville Memorial Park
2.6.1.5 P-462: (former Pinchin Lands)
2.6.1.6 P-331: Riverwood
2.6.1.7 P-60: Erindale Park

2.6 Characterization of "Feature Sites"

2.6.1 "Feature Sites"

The vignette maps included in the subsequent sections illustrate the location and configuration of all seven "Feature Sites" within the study area. A description of each of the "Feature Sites" complements the vignettes. The landscape, topography, natural and cultural heritage characterization of each of the seven "Feature Sites" is also provided. The characterization for each "Feature Site" includes a description of the location of the site, a general description of the history and context of the site, a summary of the existing natural and cultural heritage features and recreational amenities found within each site and a summary of policies that are relevant to the site. Additional detailed natural and cultural heritage inventory information is provided in Appendices G and I respectively.

Field notes, points of interest and community facilities are summarized in an assessment map at the end of each park description. Figures 2.23A and B at the end of this section provide a photographic survey and summary of all issues, facilities and points of interest identified for all of the "Feature Sites".

2.6.1.1 Lands in Private Ownership – Sanford Farm Lands

Figure 2.22A: Key Map – Lands in Private Ownership – Sanford Farm Lands

Site Location

This "Feature Site" abuts Highway #401 on its south side and extends to Old Derry Road. Creditview Rd and 2nd Line West provide the west and east boundaries of the site respectively (refer to Figure 2.22A). This "Feature Site" is 93.1ha in size and is contained largely within the floodplain.

Site Description

This site is also known as the Simpson Sanford Farm lands. Presently, the lands north of Highway #401 are privately-owned and the owner continues to farm this property as well as the surrounding lands. Both the Credit River and Levi Creek traverse the site. The agricultural fields that are located in the north area of the site are prone to periodic flooding. Based upon personal communication with the landowners, the section of the Credit River within the "Feature Site" presents excellent opportunities for kayaking and canoeing, including challenging sections that afford a white-water experience. Much of the site is encompassed within the floodplain of the Credit River and is therefore subject to regulation by CVC.

The main road into the property is located above the regional flood level and provides long views westward.

Natural Heritage Features

- Much of the site is currently under agricultural production;
- This area is designated as a "Special Management Area" in the City of Mississauga's NAS. "Special Management Areas" hold good potential for restoration and enhancement;
- Data are not widely available for this site, and thus the sensitivity analysis could not be completed for this "Feature Site";

- The site is located along the Credit River and is adjacent to sites CRR1 and MV2 (refer Figure 2.9), both of which are very highly sensitive; and,
- Records of Jefferson Salamander (threatened) and Redside Dace (endangered) have been recorded at this site.

Cultural Heritage Features

- The site encompasses the Sanford Farmhouse which is an OHA Designated Building;
- Agricultural fields and outbuildings comprise the cultural landscape;
- The site includes historic mill race (a second mill race adjoins the property to the north across Old Derry Rd W);
- The site of an historic train station associated with the Toronto Guelph Radial Railway is located at the corner of Creditview Road and Old Derry Road West;
- The old Meadowvale Mill site located at Old Derry Road West and Old Mill Lane, Crawford Sawmill site and Johnston Foundry (including some surviving buildings) are located in close proximity to the site; and,
- Meadowvale Village is located northeast of the site.

Recreational Features

There are no formal recreational facilities located with this "Feature Site", however, the following recreational facilities are located within half a kilometer of the "Feature Site":

- 12 playgrounds (none are accessible);
- 2 basketball courts;
- 2 public tennis courts;
- 1 library;
- 1 gymnasium; and,
- 2 community centres.

There are also three public schools and two catholic schools which have multi-use play fields that are available for public use.

In addition, the Gooderham Estate Park offers open grassed areas and a baseball diamond. Nearby Historic Trail Park off Old Derry Rd offers a soccer pitch. West of the "Feature Site", Leslie Trails Park and the Meadowvale Sports Park are home of the Mississauga Twins Baseball Club and Erin Mills Soccer Club. These facilities are approximately 1.5km away from the "Feature Site".

Existing trails within the Fletcher's Creek river valley have the potential to be linked to trails within the CRP study area.

Circulation Characteristics

- There are a number of bus stops located on Old Derry Road West and Creditview Road. Bus routes are easily accessible from the north and west sides of the "Feature Site"; and,
- An existing on-road shared cycling route is located on 2nd Line West, east of the "Feature Site".

Pertinent Policy

This "Feature Site" is presently under private ownership and falls within the following designations:

Conservation Authorities Act

- Approximately 60% of the site is located within the floodplain. These lands are regulated by the CVC.

Provincial Policy Statement

- Section 2.1 – policies 2.1.1-2.1.6 and 2.1.7.

Region of Peel OP Designation

- River Valley Connections Outside of the Greenbelt – Schedule D3, April 2010; and,
- Core Areas of the Greenlands System – Schedule A, April 2010

City of Mississauga OP Designations

- Green System - Schedule 1/1a, September 2010;
- Natural Areas - Schedule 3, September 2010;
- Special Management Areas - Schedule 3, September 2010;
- Public and Private Open Spaces – Schedule 4, September 2010; and,
- Greenbelt/Natural Hazards – Schedule 10, September 2010.

City of Mississauga Zoning By-Law Designations

- Part 10, G1 Zone (Greenbelt- Natural Hazards) December 31, 2011; and,
- Part 12, D (Development 'D') March 31, 2012. It is recommended that this zoning designation be changed to 'G' Greenbelt to support the protection of the existing woodlot and to prevent development within these lands.

Figure 2.22B: Site Assessment Map - Lands in Private Ownership – Sanford Farm

2.6.1.2 P-505 – Former Harris Lands

Figure 2.22C: Key Map – P-505 – Former Harris Lands

Site Location

Park #505, known as the former Harris Lands, was purchased by the City in late 2010. It is located along the Credit River within the area bounded by Creditview Road to the west and Highway #401 to the north (refer to Figure 2.22C). The park shares a common boundary with Credit Meadows Park to the south and east. This park is 54.7ha in size and due to its proximity to the Credit River, it is almost entirely within the regional floodplain.

The property was first deeded to Thomas Kennedy in 1819 and was subsequently purchased by James Kennedy in 1823. A small farm was established on the property. The farm was purchased in 1846 by James Pearson who renamed the property "Valley Home Farm", He constructed the farm house in 1847, that can be seen on the property today. The farm was became well known for the wooden bridge traversing the Credit River and its expansive lawn, orchards and vegetable gardens. The farm stayed in the Pearson Family for two generations (1946-1912) and became well known for shorthorn cattle and Berkshire pigs. William Philmore Fraser purchased the property in 1912 and renamed it "Bridge Farm". As treasurer of the Canadian Racing Association and the Ontario Jockey Club, the farm gained prominence for the breeding of thoroughbred horses.

A portion of the Toronto Guelph Suburban "Radial Railway" traversed the property and remnants of this railway remain evident today. This inter-urban railway began running on April 14, 1917 carrying passengers and freight over a 79km stretch. The railway fell into receivership during the Great Depression and was closed on April 15, 1931.

Lieutenant Colonel Walter Gow, a Toronto barrister, and former Deputy Minister of the Militia during World War I, purchased the property as his family's summer home in 1931. He expanded the existing Pearson House and operated the farm until 1944 when it was sold to Homer Newall, and subsequently to David Harris in 1946.

Under ownership by the Harris family, the site became known as "Balma Farm" after Balmacara, the Scottish village in which Mr. Harris and his bride spent their honeymoon. The Harris family added a greenhouse, veterinary care facility and equipment sheds to the property; and. had the existing steel truss bridge over the Credit River constructed in 1947 after the original wooden bridge collapsed in 1946 under the weight of an oil delivery truck. The farm was subsequently owned by two generations of the Harris family until purchased by the City of Mississauga in November 2010.

Site Description

The site is bisected by the Credit River and includes agricultural fields, meadows and a plantation in the bottom lands. The slopes associated with the valley feature on the west side of the site support a mature woodland community that includes a former sugar bush. The slopes were confirmed by geotechnical assessment to be sound with no seepage. Much of the site remains in agricultural production.

The laneway provides access into the site directly from Creditview Road and bus/transit services make the site accessible to the broader community. Views eastward from Mississauga Road across the property are striking from clearings north of the existing woodland.

The agricultural lands on the eastern side of the river have been cultivated since 1980 and are accessed from the Sandford Farm property on the north side of Highway #401 via a farm lane that passes under the highway on the east bank of the Credit River. The terrain is flat and low which makes it susceptible to periodic flooding.

Natural Heritage Features

- This site predominantly supports culturally modified vegetation communities;
- In the City of Mississauga's NAS, portions of this park are located within site CRR2 (refer Figure 2.9);
- CRR2 was ranked as "very highly sensitive" in the sensitivity analysis (Section 2.5.8.2) based on the following ecological features:
    1. one "species at risk" (bobolink, a grassland bird);
    2. habitat for area sensitive and ground nesting birds;
    3. interior forest habitat;
    4. relatively low proportion of non-native species (31.2% non-native);
    5. wetland habitat (1.5 ha); and,
    6. Contains portion of a regional life science Area of Natural or Scientific Interest (ANSI) (Meadowvale Station Woods).
- A total of eight management issues (Table 2.2) have been identified for CRR2; and,
- The majority of this "Feature Site" is composed of agricultural fields, cultural meadow and hedgerows.

Cultural Heritage Features

The original Pearson-Harris farmhouse (circa 1847), outbuildings and steel bridge (circa 1947) are intact, in good condition and retain much of their authenticity. The main farmhouse is an OHA Designated Building. These resources offer excellent interpretive potential. The farmhouse was built by James Pearson using bricks that were formed on site. The present steel bridge, which requires maintenance, was erected in 1947 to replace an original timber structure. Cultural heritage features within the site also include hedgerows with cultural landscape value and a sugar bush.

Harris Farm House

Recreational Features

There are no formal recreational facilities located within this "Feature Site".

The following recreational facilities are available within half a kilometer of the "Feature Site":

- 7 playgrounds (none are accessible);
- 2 basketball courts; and,
- 1 public tennis court.

There are also two public schools and one catholic school that provide multi-use playing fields which are available for public use.

Circulation Characteristics

- Bus stops are located along Creditview Road at Argentia Road and Falconer Drive; and,
- Existing on-road shared cycling routes are located along Bancroft Drive and Donway Drive. These routes could provide linkages to the "Feature Site" from the east and the west via Creditview Road.

Pertinent Policy

This "Feature Site" is owned and managed by the City and falls within the following designations:

Conservation Authorities Act

- Approximately 70% of the site is located within the floodplain. These lands are regulated by the CVC.

Provincial Policy Statement

- Section 2.1 – policies 2.1.1-2.1.6 and 2.1.7.

Region of Peel OP Designations

- River Valley Connections Outside of the Greenbelt – Schedule D3, April 2010; and,
- Core Areas of the Greenlands System – Schedule A, April 2010.

City of Mississauga OP Designations

- Green System - Schedule 1/1a, September 2010;
- Natural Areas - Schedule 3, September 2010;
- Public and Private Open Spaces – Schedule 4, September 2010; and,
- Greenbelt/Natural Hazards – Schedule 10, September 2010.

City of Mississauga Zoning By-Law Designations

- Part 10, G Zone (Greenbelt) September 31, 2011;
- A Zone March 31, 2012; and,
- RR Zone March 31, 2012.

Recognizing that the features proposed for this "Feature Site" are supported by the 'A' agricultural zoning there is no immediate action required. However, in the medium term (5-10 years) efforts should be undertaken to bring the zoning into conformity with the present bylaw through a site specific zoning amendment that recognizes the requirements for urban agricultural use.

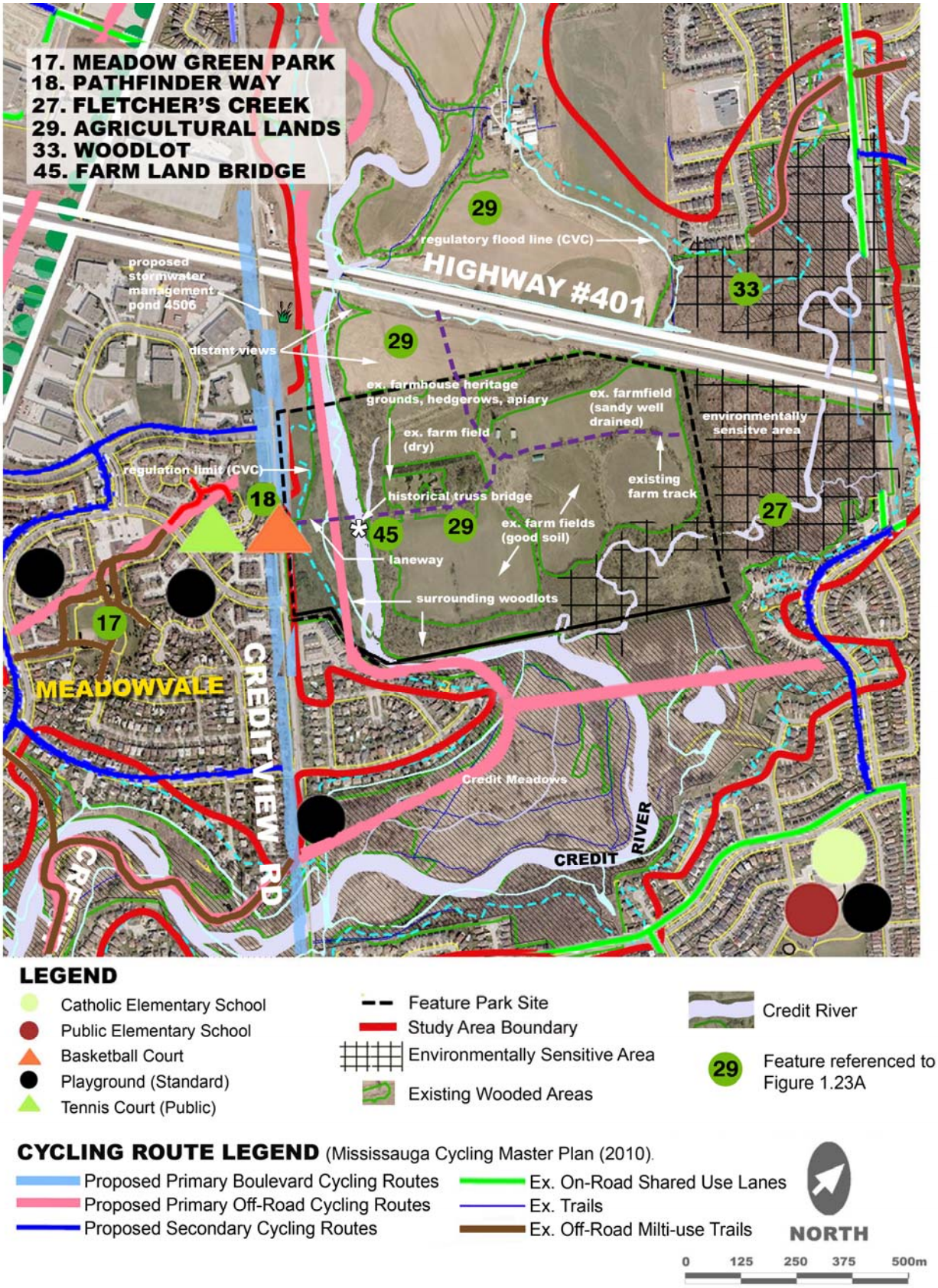


Figure 2.22D: Site Assessment Map – P-505 – Former Harris Lands

2.6.1.3 P-122 – Credit Meadows

Figure 2.22E: Key Map – P-122 – Credit Meadows

Site Location

Credit Meadows is located along the Credit River to the east of Creditview Road and south of Highway #401 (refer to Figure 2.22E). This park is 57.9ha in size and is situated within a flat expanse of the river floodplain. A small section of park that is detached from the larger portion situated is located off of 2nd Line West. This smaller portion is characterized by densely vegetated steep valley slopes.

Site Description

A small parking area serves a modest picnic area at Credit Meadows. This parking lot is located directly off of Creditview Road. The site is accessible by public transit at this location. Informal trails lead from this location and meander along the river's edge, providing an experience of nature and affording good bird watching within the meadowlands.

The bridge over the Credit River at Creditview Road has a low clearance height of approx. 2.5m.

Low clearance height at Creditview Road

Rear private lots backing onto the northern edge of the site are generally not fenced and some minor encroachments have occurred into the Credit Meadows site.

Natural Heritage Features

- The landscape predominantly supports culturally modified vegetation communities;
- The Credit River is relatively stable as it passes through the site;
- In the City of Mississauga's NAS, Credit Meadows Park is located within site CRR2 (refer Figure 2.9);
- CRR2 was ranked as "very highly sensitive" based on the following ecological features:
    1. one "species at risk" (bobolink);
    2. habitat for area sensitive and ground nesting birds;
    3. interior forest habitat;
    4. relatively low proportion of non-native species (31.2% non-native); and,
    5. wetland habitat (1.5 ha).
- A total of eight management issues (Table 2.2) have been identified for CRR2; and,

- The majority of Credit Meadows is early successional forest and cultural meadow.

Cultural Heritage Features

- The "Feature Site" does not contain any cultural heritage features of note.

Recreational Features

Apart from extensive informal hiking trails frequented by bird watchers, hikers and dogwalkers the "Feature Site" provides only limited picnic facilities directly adjacent to a small parking area that is located off of Creditview Road.

The following recreational facilities are available within half a kilometer of the "Feature Site":

- 7 playgrounds (none are accessible);
- 2 basketball courts; and,
- 1 public tennis court.

There are also two public schools and one catholic school that provide multi-use playing fields which are available for public use.

Nearby Swinbourne Meadows, Bidwell Trail Common and Bancroft Park offer additional playfields and baseball diamonds.

Circulation Characteristics

- A bus stop is located along Creditview Road at Kenninghall Boulevard;
- There is a bus route with a number of stops along Bancroft Dive enabling a walking distance of less than 400m to Credit Meadows; and,
- Bancroft Dive and Donway Dive include existing on-road shared cycling routes that provide linkages to the "Feature Site" from the east as well as the west via Creditview Road.

Pertinent Policy

This "Feature Site" is owned by both the CVC and the City and is encompassed by the following designations:

Conservation Authorities Act

- Approximately 60% of the site is located within the floodplain. These lands are regulated by the CVC.

Provincial Policy Statement

- Section 2.1 – policies 2.1.1-2.1.6.

Region of Peel OP Designations

- River Valley Connections Outside of the Greenbelt – Schedule D3, April 2010; and,
- Core Areas of the Greenlands System – Schedule A, April 2010.

City of Mississauga OP Designations

- Green System - Schedule 1/1a, September 2010;
- Natural Areas - Schedule 3, September 2010;
- Public and Private Open Spaces – Schedule 4, September 2010; and,
- Greenbelt/Natural Hazards – Schedule 10, September 2010.

City of Mississauga Zoning By-Law Designation

- Part 10, G1 Zone (Greenbelt- Natural Hazards) December 31, 2011.

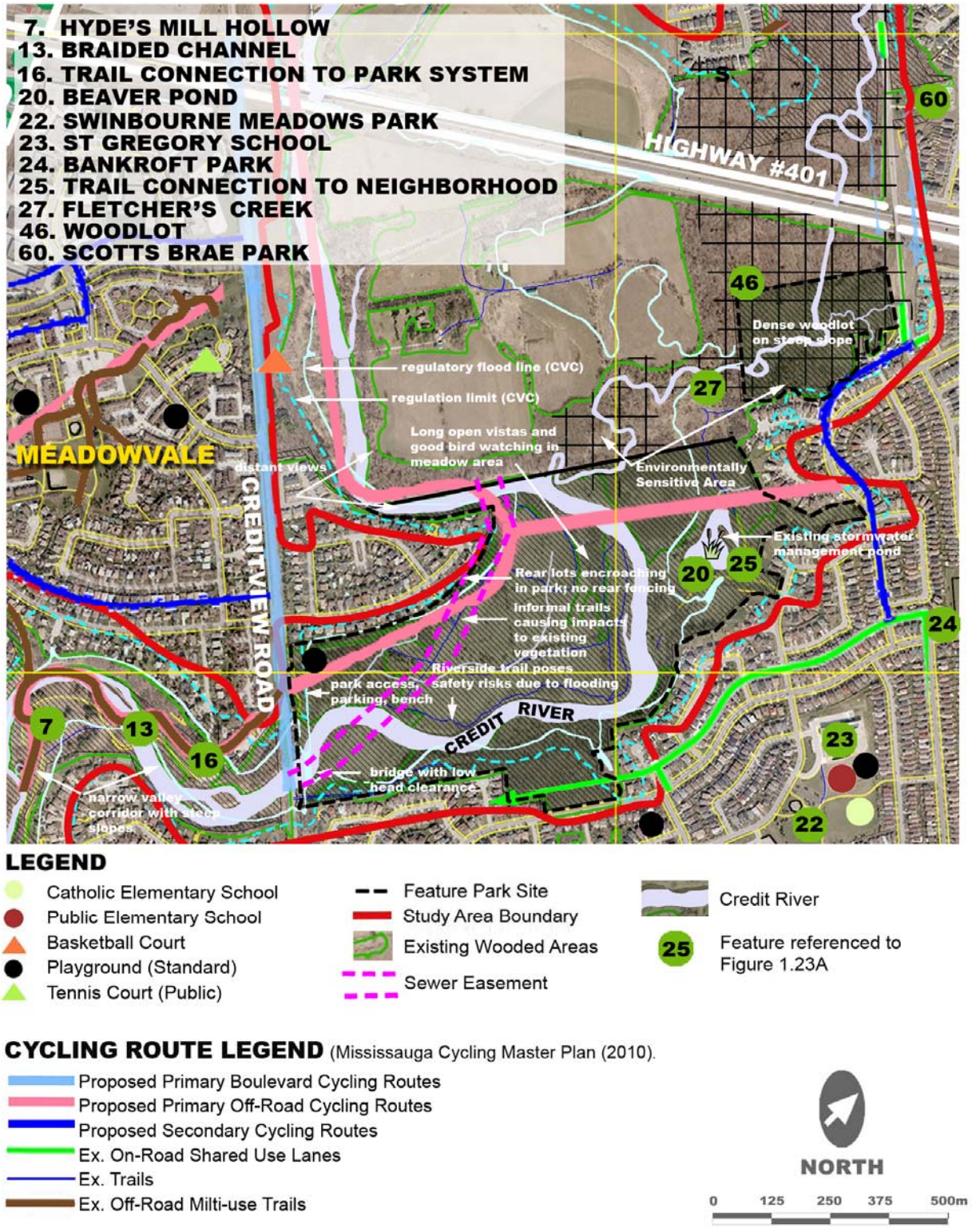


Figure 2.22F: Site Assessment Map – P-122 – Credit Meadows

2.6.1.4 P-114: Streetsville Memorial Park

Figure 2.22G: Key Map – P-144 Streetsville Memorial Park

Site Location

Streetsville Memorial Park is located along the Credit River in the historic village of Streetsville, south of Main Street and east of Queen Street South (refer to Figure 2.22G). This park is 16.3ha in size and is primarily situated within the floodplain of the river. The Credit River bisects the site along its north/south axis.

Site Description

Access to the site is afforded off of Queen Street. Vic Johnson Arena, pool and community centre is located immediately adjacent to the site. Parking to serve the park is shared with the community centre and a portion of the parking lot is located within the floodplain of the river.

The nearby bridge over the Credit River on Main Street affords long views north and south along the river. Ice jamming was evident at this location in late January 2011. The site is a popular spot for anglers. The parking area at the Streetsville Cemetery, located on the east side of the river valley, provides an ideal location from which to access the river. At the north end of the site, the valley slopes drop off sharply and are inaccessible.

Downstream of Streetsville Memorial Park, private property associated with the Kraft Mill presently limits the potential to establish a trail along the river south of the site.

Existing Uses and Amenities

Facilities located within the park include a picnic area that accommodates approximately 100 people, a children's playground, barbeques and a washroom building A parking lot accommodates approximately 98 vehicles and includes accessible parking spaces. The site also includes an illuminated baseball diamond.

A City of Mississauga parks operations compound is located near the south end of the park. This facility includes parking for maintenance vehicles and trailers

and outdoor storage for garbage containers, picnic tables and maintenance related materials including sand and salt. The facility is fenced and is situated immediately adjacent the west bank of the river.

A hiking trail leads from the road south along the west side of the river although the trailhead is not well defined. Cross-valley views are provided from the trail. The Kraft Mill facility is a dominant visual element in the distance. Two stormwater outfall structures are located along the reach of the river within the park.

A maintained open space on an island within the river serves as a multi-use space for passive recreation. A footbridge provides access to the island. Winter activities include tobogganing on a steep valley slope off of Queen Street and skating on the river. The site is also the location for the Bread and Honey Festival which is held annually in June.

Natural Heritage Features

- The park is a predominantly maintained landscape;
- In the City of Mississauga's NAS, Streetsville Memorial Park is located within site CRR4 (refer Figure 2.9);
- CRR4 was ranked as "supporting sensitivity (Section 2.5.8.2), based on the following considerations:
    1. Presence of one "species at risk" (milksnake); and,
    2. Presence of habitat for area sensitive birds.
- A total of three management issues (Table 2.2) have been identified at CRR4.

Cultural Heritage Features:

- This "Feature Site" is proximate to the Streetsville Heritage Conservation District as well as a number of cemeteries;
- Timothy Street House (founder of Streetsville) is located at north edge of site;
- The Hyde/ Ontario Mills site is proximate to this site;
- Caslor Mill (visible ruins) is proximate to this site; and,
- The Street Mill Complex (historical grist and saw mill and tannery) is located in the vicinity of the site.

Recreational Features:

- A multi use open space on the "island" incuding a soccer pitch is located on the "island". This area within the "Feature Site" is home to theBread and Honey Festival;
- A toboggan hill;
- A segment of the Culham Trail;
- An illuminated baseball diamond;
- Informal angling;
- A soccer pitch (used by the Erin Mills Soccer Club);
- A playground;
- Vic Johnston Arena and Community Centre which includes an indoor ice rink and indoor pool is located immediately adjacent to the site;

- Informal skating occurs on the Credit River;
- A picnic area for approx. 100; and,
- A parking area with space for 89 (with 2 disabled parking stalls).

The following recreational facilities are available within half a kilometer of the "Feature Site":

- One public outdoor pool;
- Two community centres;
- One arena;
- One library; and
- One playground (not accessible).

There is also one public school and one catholic school in the area that offer multi-use playing fields which are available for public use.

Circulation Features:

- This site is located within 400m of the Streetsville GO Station;
- There are multiple transit routes available in close proximity to the site;
- Primary and Secondary on-road and off-road bicycle routes intersect in the vicinity of the site; and,
- There is the potential for Bristol Road to provide an on-road cycling route.

Operational Characteristics

- The site of a former wastewater treatment plant is now used as a yard for parks operations and maintenance including outdoor storage and parking of maintenance vehicles.

Pertinent Policy:

This site is owned by the City and is designated as follows:

Conservation Authorities Act

- Approximately 70% of the site is located within the floodplain. These lands are regulated by the CVC.

Provincial Policy Statement

- Section 2.1 – policies 2.1.1-2.1.6.

Region of Peel OP Designations

- River Valley Connections Outside of the Greenbelt – Schedule D3, April 2010; and,
- Core Areas of the Greenlands System – Schedule A, April 2010.

City of Mississauga OP Designations

- Green System - Schedule 1/1a, September 2010;
- Natural Areas - Schedule 3, September 2010;
- Public and Private Open Spaces – Schedule 4, September 2010;
- Greenbelt/Natural Hazards – Schedule 10, September 2010; and,
- Public Open Space - Schedule 10, September 2010.

City of Mississauga Zoning By-Law Designations

- Part 9, OS-2 Zone (Open Space) June 30, 2010; and,
- Part 10, G1, G1-14 Zone (Greenbelt- Natural Hazards) December 31, 2011.

Figure 2.22H: Site Assessment Map – P-144 – Streetsville Memorial Park

2.6.1.5 P-462 – Former Pinchin Lands

Figure 2.22I: Key Map – P-462 – Former Pinchin Lands

Site Location

This "Feature Site" is located between the Credit River and Mississauga Road, north of Highway #403. This site encompasses 16.7ha. Refer to Figure 2.22I. The Credit River marks the eastern limit of the site. A small portion of the site is located within the floodplain. The lands were purchased by the City of Mississauga in 2005.

Site Description

The site is positioned on a promontory over the Credit river valley, affording impressive views of the river. Coyotes and a multitude of deer have been observed utilizing the property year round. Existing ad-hoc trails follow the edge of the site where the topography dramatically drops off several hundred feet to the valley below.

A cultural review of the former Pinchin lands was conducted in 2005 and is documented in a "*Cultural Heritage Resource Inventory – Riviere Fruit Farm/ Pinchin Property"*. The property was acquired by the City of Mississauga from the Province of Ontario in 1992 with the intention of integrating the site into the overall CRP System. The site offers a number of potential interpretive and programming opportunities which are described below.

In May of 1832, Thomas Silverthorn received 200 acres in Lots 3 and 4, Range 5 as a Crown Grant. Over the decades, the property was passed through a succession of owners including Herbert Pinchin who acquired the property in 1931. Apple orchards were planted by the Pinchin family primarily in the 1930s. The Pinchins also raised turkeys and grew strawberries and pears. Buildings once located within the property included:

- The main farmhouse, (1865);
- The original barn, (1871);
- Turkey barns;
- A worker's house;
- Valley house;
- Metal storage barn; (still on-site);
- A number of outbuildings;
- A sawmill; and,
- The remnant foundation of a Cider Mill.

The Leslie log house was moved to the property in 1992.

Cultural Heritage Features

The Leslie log house, moved from Streetsville in May 24, 1992, is situated prominently facing Mississauga Road at the south end of the site. This building was recently renovated and accommodates the Museums of Mississauga on the first floor and the archives of the Streetsville Historical Society on the second floor. The grounds in the immediate vicinity of the house are maintained by the Streetsville Horticultural Society with plant material that is contemporary to the construction of the building.

A remnant apple orchard is within the property. This landscape presents opportunities for interpretation. The trees that were originally planted in 1932 are now in decline. The orchard was run for a very long time as a 'pick your own' operation and therefore the road through the former farmland was kept in good repair until recent years.

The homestead and out-buildings that belonged to the Pinchin Family have been demolished, with the exception of one outbuilding presently used by the City of Mississauga for storage. However, the remains of barns and farm roads, and an old farm dump site on the east side of the promontory are artefacts that may warrant interpretation. The remnant foundation of the Cider Barn presents the potential for adaptive re-use as a feature within the proposed concept plan for this "Feature Site".

Natural Heritage Features

- This site consists of former orchards, hedgerows and early successional forests;
- In the City of Mississauga's NAS, portions of this park are located within site CRR11 (refer Figure 2.9). CRR11 was ranked as "very highly sensitive" in the sensitivity analysis (Section 2.5.8.4 based on the presence of the following:
    1. one "species at risk" (Butternut);
    2. habitat for ground nesting birds;
    3. interior forest habitat;
    4. special features: vernal pools, old growth forest and prairie indicators;
    5. relatively high FQI (40.02); and
    6. relatively low proportion of non-native species (30.6% non-native).
- A total of four management issues (Table 2.2) have been identified at CRR11.

Cultural Heritage Features

This "Feature Site" encompasses:

- A heritage orchard;
- The Leslie Log House;
- Cider Barn remnants; and,

- A large Black Walnut identified as a "Heritage Tree".

Recreational Features

The site offers informal hiking trails.

The following recreational facilities are available within half a kilometer of the "Feature Site":

- Nine playgrounds (none are accessible);
- One community centre; and,
- One public tennis court.

The nearby Erin Mills Athletic fields provide opportunities for active recreation. There are also two public schools and one catholic school which offer multi-use playing fields that are accessible to the public.

Circulation Characteristics

There is a bus route along Mississauga Road with bus stops in close proximity to this "Feature Site".

Pertinent Policy

This site is owned by the City and is subject to the following designations:

Conservation Authorities Act

- Approximately 30% of the site is located within the floodplain. These lands are regulated by the CVC.

Provincial Policy Statement

- Section 2.1 – policies 2.1.1-2.1.6.

Province - Parkway Belt West

Region of Peel OP Designations

- Parkway Belt West Plan Area – Figure 2, November 2008;
- River Valley Connections Outside of the Greenbelt – Schedule D3, April 2010; and,
- Core Areas of the Greenlands System – Schedule A, April 2010.

City of Mississauga OP Designations

- Green System - Schedule 1/1a, September 2010;
- Natural Areas - Schedule 3, September 2010;
- Linkages - Schedule 3, September 2010;
- Public and Private Open Spaces – Schedule 4, September 2010;
- Parkway Belt West – Schedule 4, September 2010;
- Parkway Belt West – Schedule 10, September 2010;
- Greenbelt/Natural Hazards – Schedule 10, September 2010; and,
- Public Open Space - Schedule 10, September 2010.

City of Mississauga Zoning By-Law Designation

- Part 11, PB1 Zone (Parkway Belt) December 31, 2011.

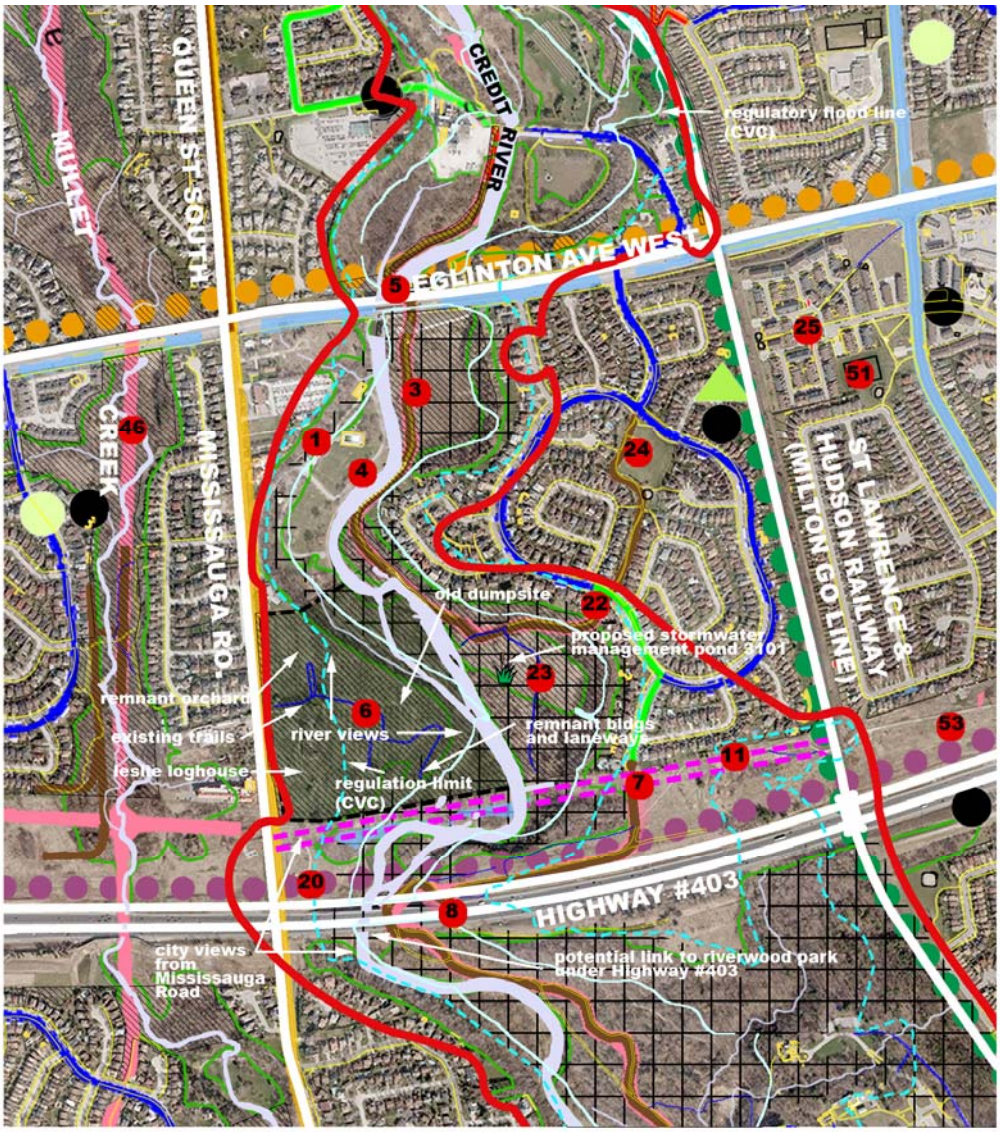


Figure 2.22J: Site Assessment Map – P-462 – Former Pinchin Lands

2.6.1.6 P-331 – Riverwood

Figure 2.22K: Key Map – P-331 – Riverwood

Site Location

Riverwood is located west of downtown Mississauga on the north side of Burnhamthorpe Road (refer to Figure 2.22K). The site is bounded by a Canadian Pacific Railway Line to the east, Burnhamthorpe Road to the south, the Credit River valley to the west, and Highway #403 to the north. The Credit River, Chappell Creek and MacEwan Creek pass through the site, as do the Burnhamthorpe Trail and Culham Trail. The site is located immediately adjacent to the Erindale GO Train station and is approximately 6.5km from Mississauga's downtown core and accessible via existing cycling infrastructure. The floodplain is narrow in this section of the corridor.

Park Description

Riverwood encompasses approximately 60ha of table land and valleyland within and on the east side of the Credit River valley north of Burnhamthorpe Road West. The park is owned by the CVC but managed by the City of Mississauga. The property contains two principal tenants, The TRC and VAM. The landscape is comprised of tablelands that accommodate parkland uses and valleylands that support a diverse ecosystem that includes old-growth woodlands and habitats for over 475 species of flora and fauna. Both TRC and VAM occupy buildings within the park.

TRC occupies Chappell House (1919) and cares for the ornamental gardens surrounding the house. TRC is a volunteer-based charity that is dedicated to the stewardship of Riverwood, environmental education, horticulture and gardening. The focus of The Conservancy is to guide the re-development of Riverwood as a public garden park and nature reserve. The construction of the MacEwan Terrace Garden was one of the projects supported by TRC.

The VAM facility is located south of Chappell House. VAM promotes an appreciation of the arts through 'active involvement and creative experiences' and offers a variety of programs aimed at bringing an appreciation of the arts of the Mississauga community.

Facilities located within the park include hiking trails and boardwalks, gardens (including the MacEwan Terrace Garden) and parking areas both on the tableland and in the valley. The trail system within the park connects to the Culham Trail. The upper parking lot in Riverwood is notable in that it incorporates an innovative SWM system that is designed to treat runoff emanating from the parking lot area, improving water quality, moderating flow rates and promoting infiltration. This parking lot represents a prototype of sustainable design and should be regarded as a model for application elsewhere in the CRP system.

Cultural Heritage Features

Riverwood has a rich history and this historical legacy combined with the diversity of cultural heritage features within this park afford opportunities for interpretive and a range of experiences.

The site encompasses the Late Woodland Iroquoian Chappell Terrace site, a pre-pioneer settlement that was discovered within Riverwood in 1991. This site was subsequently completely excavated. This site also includes artifacts from the Pioneer Period, Post-Confederation Period, Country-Place Era and Permanent-Residency Period with evidence remaining in the landscape of each of the eras.

Some of the cultural heritage features identified in the *Cultural Resource Management Plan*, 2003 and that are prominent within the site today include include:

- MacEwan House (mid 1800s);
- MacEwan Barn and Later Riding Rings (1850s);
- Fence and gate near MacEwan Barn;
- Small outbuildings near MacEwan House;
- Parker/Chappell House and associated Stone-Built Features (1919);
- Parker/Chappell House grounds;
- Tennis court and adjacent paths and steps;
- Upper farm buildings (Zaichuk Terrace);
- Fences and fence fragments;
- Orchard remnants and windbreak of Norway Spruces;
- Cattle pen; and,
- Wells.

TRC and VAM hold a significant stake in Riverwood and the objectives of both of these partners were considered in the process of generating the CRPS.

Natural Heritage Features

- In the City of Mississauga's NAS, Riverwood is identified as site CRR10 (refer Figure 2.9);
- Extensively reviewed/document by the Natural Areas Survey
- The site is one of the highest quality and most diverse in the City in terms of wildlife habitat and floral diversity having (old growth woodlands and habitats for over 475 species of flora and fauna)
- Including 40 locally rare species with 3 species at risk (butternut, bobolink and red-headed woodpecker); ;
- Area sensitive and ground nesting birds;
- Largely Interior forest habitat;
- Special features: vernal pools and old growth forest;
- Relatively low proportion of non-native species (34.9% non-native).
- TRC runs education programs out of the Park
- The City of Mississauga manage the Riverwood property;
- The Credit River, Chappell Creek and MacEwan Creek and located within the site;
- This site was ranked as "very highly sensitive" in the sensitivity analysis based on the following ecological considerations:
    1. Three "species at risk" (butternut, bobolink and red-headed woodpecker);
    2. High diversity of locally rare species (>40 species);

3. Area sensitive and ground nesting birds;
4. Interior forest habitat;
5. Special features: vernal pools and old growth forest;
6. Relatively high FQI (67.89); and
7. Relatively low proportion of non-native species (34.9% non-native).

- Five management issues (Table 2.2) were identified for CRR10, including impacts from an extensive mountain biking issue; and,
- This site is one of the highest quality and most diverse in the City in terms of, wildlife habitat and floral diversity.

Bobolink

Evolution of Riverwood

In 2002, a Master Plan and Implementation Strategy was prepared for the Mississauga Garden Park (now known as "Riverwood"). The 2002 Master Plan set out a vision for Riverwood that included a suite of gardens, a visitors' centre, an environmental centre as well as other amenities. The Master Plan also recommended a strategy to guide the management of natural and cultural heritage resources and address the implications of public access and use of the park. Work continues to progress to further the implementation of the Master Plan including the completion of the MacEwan Terrace Garden.

Recreational Features:

Recreational features within this site include hiking trails and a segment of the Culham Trail. Both TRC and VAM offer programs out of Riverwood.

Circulation Features:

- Proximate to Erindale GO Station;
- Multiple transit routes are located in the vicinity of this "Feature Site"; and,
- This site is located at the confluence of Primary and Secondary on-road and off-road bicycle routes.

Pertinent Policy:

This "Feature Site" is owned jointly by the CVC and the City. This site is managed by the City and is subject to the following designations:

Conservation Authorities Act

- Approximately 30% of the site is located within the floodplain. These lands are regulated by the CVC.

Provincial Policy Statement

- Section 2.1 – policies 2.1.1-2.1.6.

Region of Peel OP Designations

- Parkway Belt West Plan Area – Figure 2, Nov 2008 – Although Figure 2 in the Region of Peel OP illustrates Parkway Belt West lands extending across the Riverwood "Feature Site" the Provincial Parkway Belt West plans do not. It is recommended that this anomaly be addressed;

- River Valley Connections Outside of the Greenbelt – Schedule D3, April 2010; and,
- Core Areas of the Greenlands System – Schedule A, April 2010.

City of Mississauga OP Designations

- Green System - Schedule 1/1a, September 2010;
- Natural Areas - Schedule 3, September 2010;
- Public and Private Open Spaces – Schedule 4, September 2010;
- Greenbelt/Natural Hazards – Schedule 10, September 2010; and,
- Public Open Space - Schedule 10, September 2010.

City of Mississauga Zoning By-Law Designations

- Part 10, G1, G1-4 Zone (Greenbelt- Natural Hazards) December 31, 2011; and,
- Part 9, OS2-7 Zone (Open Space) June 30, 2010.

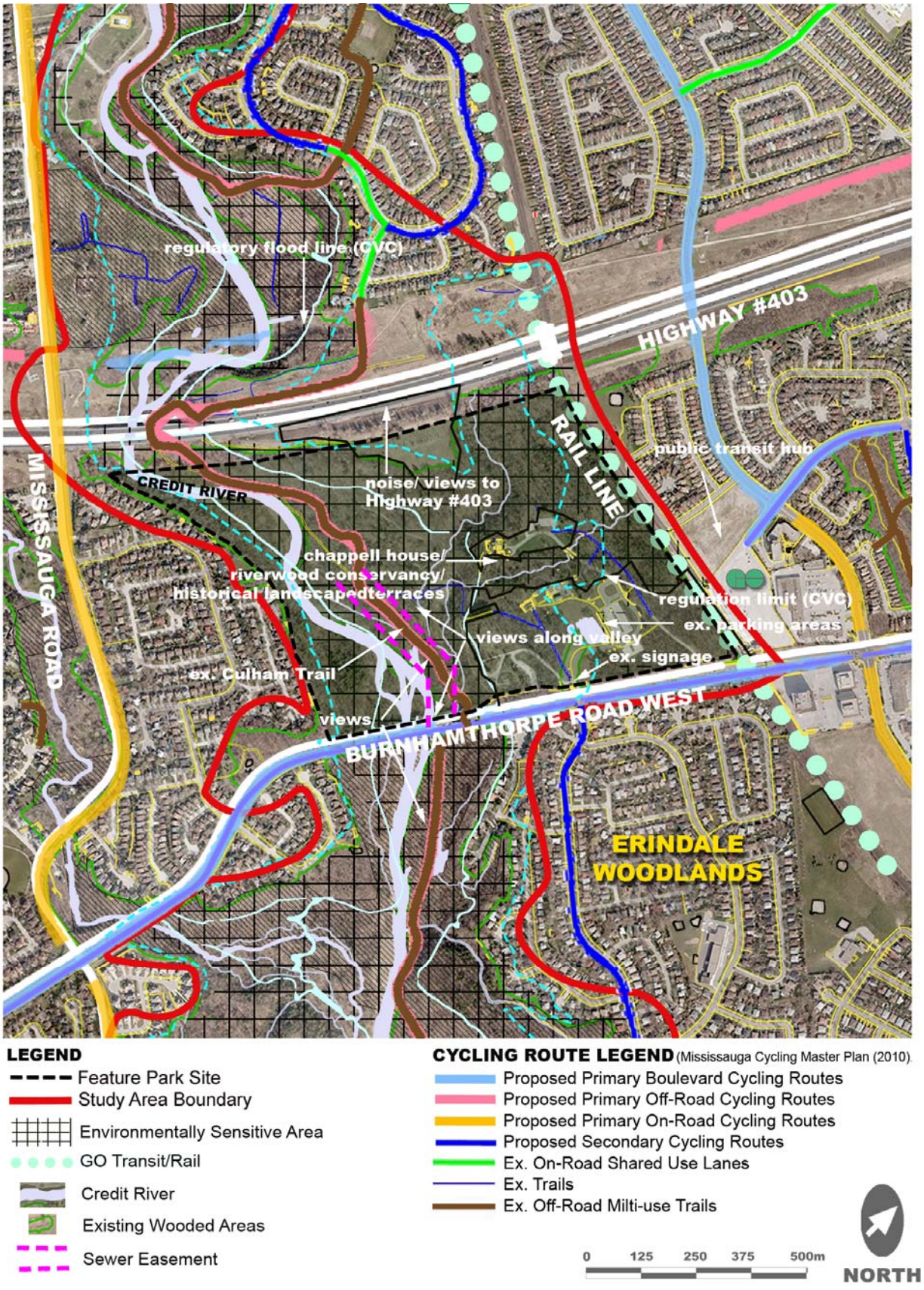


Figure 2.22L: Site Assessment Map – P-331 – Riverwood

2.6.1.7 P-60 – Erindale Park

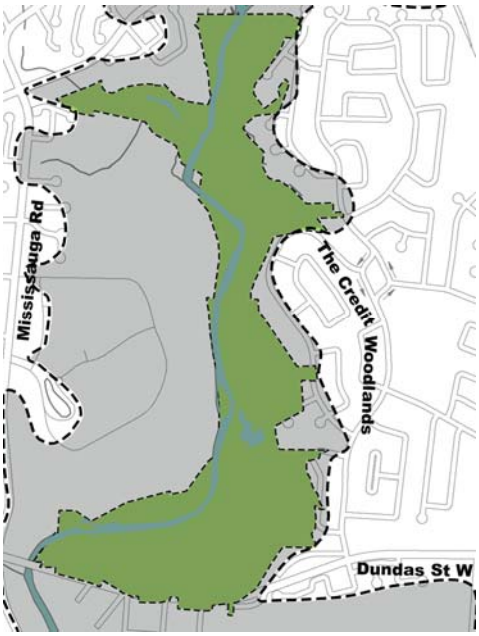


Figure 2.22M: Key Map – P-60 – Erindale Park

Site Location

Erindale Park is located on the east side of the Credit River north of Dundas Street West (refer to Figure 2.22M). The park site extends northward to Burnhamthorpe Road West. The park is located to the east of the UTM. Erindale Park has an area of 91.6ha. The Culham Trail extends through the park.

The eastern side of the park is confined by steep valley slopes. This area of the park is proximate to the rear lots of privately-owned properties, many of which include fences that extend into the corridor. Issues associated with ownership, private access into the corridor, dumping of yard waste are a concern. The floodplain is narrow and contained within the steep valley walls.

Site Description

Erindale Park is the largest park in the City of Mississauga, encompassing over 90ha. The park is the site of a former hydro-electric dam that was constructed in 1902 and demolished in the mid-1950s. Remnants of the former dam are still visible within the landscape, particularly on the west side of the river valley. A portion of the site was utilized as a landfill in the early 1960s. In the 1980s extensive stabilization work was implemented along the river banks to mitigate erosion and an ice breaking structure was erected across the river in an effort to control damage from ice movement and ice jamming downstream. Erindale Park is a popular angling area that supports runs of varieties of salmon and trout.

Facilities located within the park include the following:

- A parking area with a capacity for approximately 400 cars (including accessible parking spaces);
- Five picnic areas with a combined capacity of over 900 people;
- Four playgrounds;
- Five barbeque pits;
- A toboggan hill; and,
- Transit and cycling accessible.

Existing picnic shelter

The park also includes washroom facilities and picnic pavilions as well as open lawn areas. Naturalization plantings have been implemented in areas of the park that are less well-used. There is some visual evidence that the armourstone revetments that have been installed along the river corridor are becoming destabilized. The ice-breaking structure tends to accumulate wood debris that is conveyed down the river from upstream, necessitating periodic maintenance to remove the accumulated debris in order of avoid obstruction of the river. Wood debris removed from the river is stockpiled on the west side of the river for later disposal.

Existing underpass

Erindale Park is used by mountain-bikers because of its varied terrain and steep slopes. Erindale Park is also largely used as a venue for group picnics and festivals.

Natural Heritage Features

- This park is predominantly manicured, containing large open fields, picnic shelters and walking trails parking lots;
- In the City of Mississauga's NAS, Erindale Park is located within site CRR6 (refer Figure 2.9);
- CRR6 was ranked as "very highly sensitive", this area does not include the manicured areas north of Dundas Street West, which compose the majority of Erindale Park. These areas were ranked as supporting sensitivity. The natural areas at CRR6 were classified as "highly sensitive" based on the following:
    1. two "species at risk" (Jefferson salamander and Butternut);
    2. high diversity of locally rare species (>40 species);
    3. area sensitive and ground nesting birds;
    4. interior forest habitat;
    5. special features: vernal pools and old growth forest;
    6. relatively high FQI (61.31); and,
    7. relatively low proportion of non-native species (33.8% non-native).
- Ten management issues (Table 2.2) have been identified for CRR6.

Cultural Heritage Features

- 700ft long wall of the former Hydro Dam;
- Glen Erin Hall and St Peter's Anglican Church are nearby heritage features;
- This site is directly south of the historic sites of the McGill flour mill, Brown's flour mill and Proudfoot's oatmeal mill (no visible remains); and,
- The site encompasses a former landfill.

Recreational Features

The site offers a playground as well as a formal pathway in the Culham Trail and informal hiking trails which provide access to the river. The site includes five picnic

areas, one picnic shelter, parking areas, playgrounds and washroom facilities as described previously
The following recreational facilities are available within half a kilometer of the "Feature Site":

- Five playgrounds (none are accessible);
- One community centre;
- One private tennis court; and,
- One outdoor public pool.

There are also three public schools and three catholic schools nearby which offer multi-use playing fields and baseball diamonds that are available for public use.

In addition, trails within the "Feature Site" connect to trails within the adjoining Sawmill Creek valley.

Circulation Characteristics

There are bus routes located along Mississauga Road, Dundas Street West and Credit Woodlands.

Pertinent Policy

This "Feature Site" is jointly owned by the City and the CVC and is subject to the following designations:

Conservation Authorities Act

- Approximately 60% of the site is located within the floodplain. These lands are regulated by the CVC.

Provincial Policy Statement

- Section 2.1 – policies 2.1.1-2.1.6.

Province - Parkway Belt West

Region of Peel OP Designations

- Parkway Belt West Plan Area – Figure 2, November 2008;
- River Valley Connections Outside of the Greenbelt – Schedule D3, April 2010; and,
- Core Areas of the Greenlands System – Schedule A, April 2010.

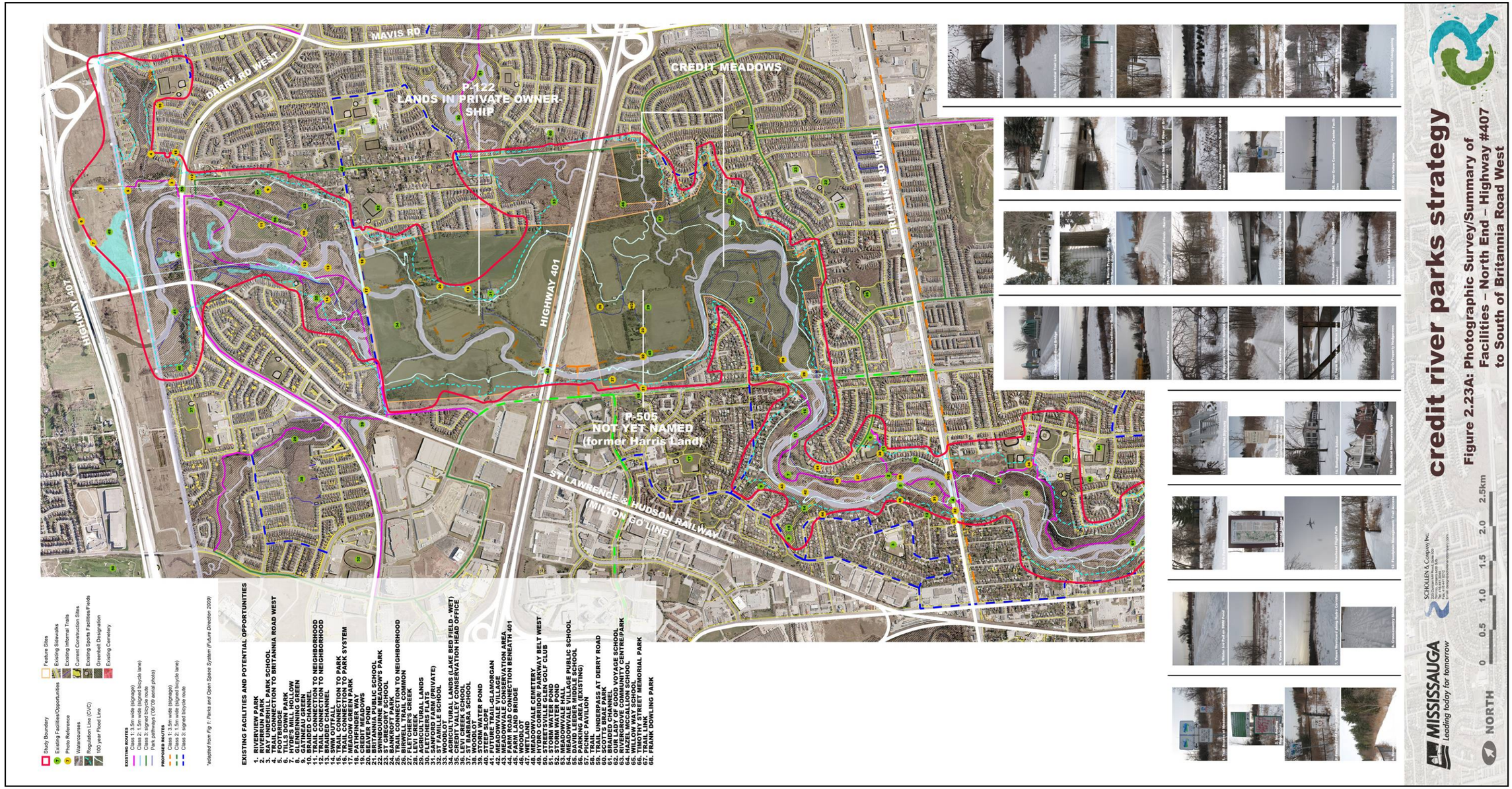
City of Mississauga OP Designations

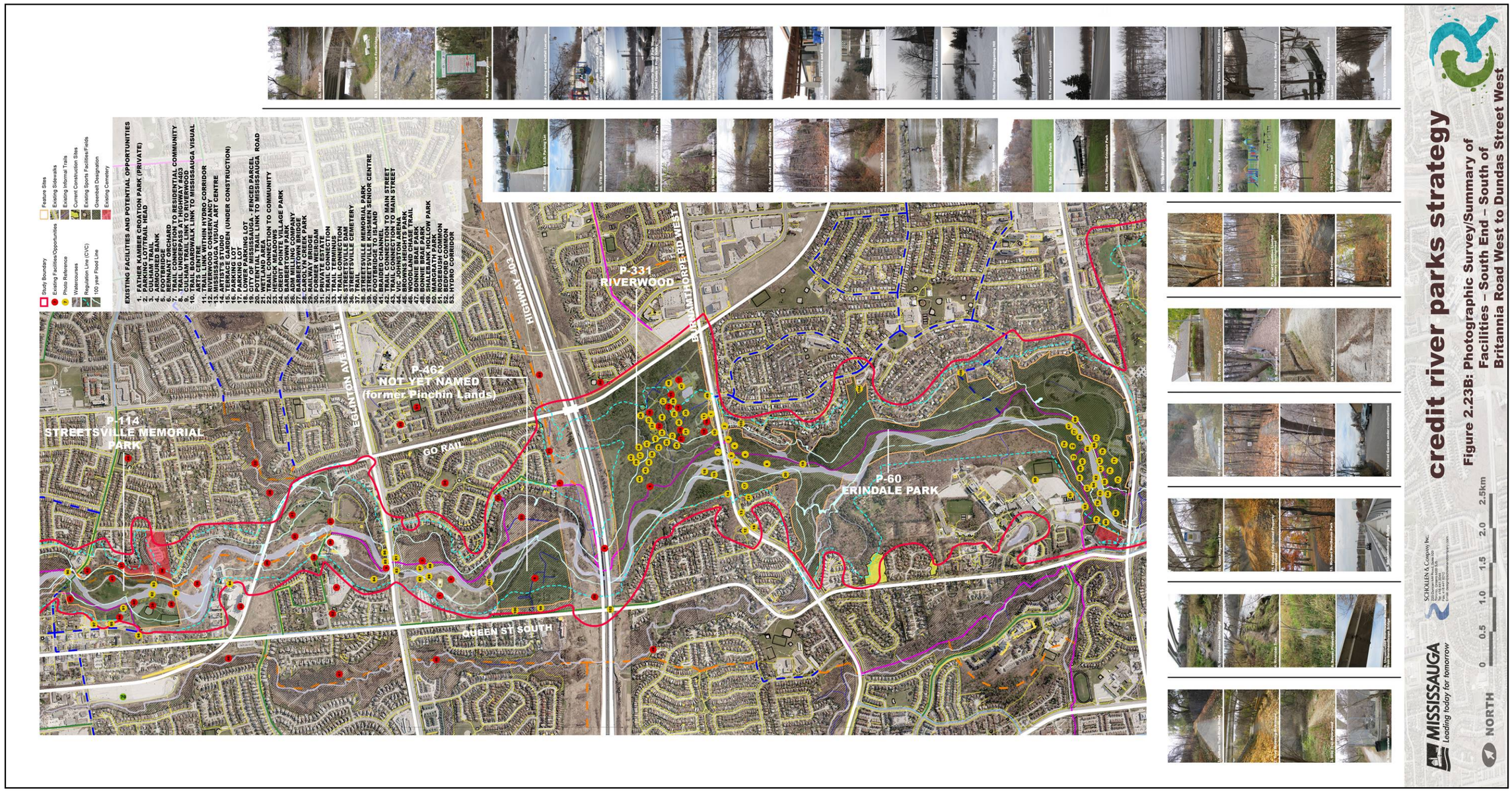
- Green System - Schedule 1/1a, September 2010;
- Natural Areas - Schedule 3, September 2010;
- Public and Private Open Spaces – Schedule 4, September 2010;
- Parkway Belt West – Schedule 4, September 2010;
- Parkway Belt West – Schedule 10, September 2010; and,
- Greenbelt/Natural Hazards – Schedule 10, September 2010.

City of Mississauga Zoning By-Law Designations

- Part 11, PB1 Zone - Parkway Belt December 31, 2011; and,
- Part 10, G1, G1-14 Zone (Greenbelt- Natural Hazards) December 31, 2011.

Figure 2.22N: Site Assessment Map – P-60 – Erindale Park


MAVIS RD
DARRAY RD WEST
P-122
LANDS IN PRIVATE OWNER-SHIP
CREDIT MEADOWS
BRITANNIA RD WEST
HIGHWAY 401
HIGHWAY 401
P-505
NOT YET NAMED
(former Harris Land)
ST LAWRENCE & HUDSON RAILWAY
(MILTON GO LINE)
Study Boundary
Existing Facilities/Opportunities
Photo Reference
Watercourses
Regulation Line (CVC)
100 year Flood Line
Feature Sites
Existing Sidewalks
Existing Informal Trails
Current Construction Sites
Existing Sports Facilities/Fields
Greenbelt Designation
Existing Cemetery
EXISTING ROUTES
Class 1: 3.5m wide (signage)
Class 2: 1.5m wide (signed bicycle lane)
Class 3: signed bicycle route
Park pathways (100 09 aerial photo)
PROPOSED ROUTES
Class 1: 3.5m wide (signage)
Class 2: 1.5m wide (signed bicycle lane)
Class 3: signed bicycle route
*adapted from Fig 1 Parks and Open Space System (Future Direction 2009)
EXISTING FACILITIES AND POTENTIAL OPPORTUNITIES
1. RIVERVIEW PARK
2. RIVERWOOD PARK
3. RAY UNDERHILL PARK SCHOOL
4. FOOTBRIDGE CONNECTION TO BRITANNIA ROAD WEST
5. TILLS DOWN PARK
6. HAZEL MCCALLION SCHOOL
7. GLENDENNING GREEN
8. GATINEAU GREEN
9. GATINEAU PARK
10. TRAIL CONNECTION TO NEIGHBORHOOD
11. TRAIL CONNECTION TO NEIGHBORHOOD
12. TRAIL CONNECTION
13. SWM OUTFALL
14. TRAIL CONNECTION TO PARK
15. TRAIL CONNECTION TO PARK SYSTEM
16. MEADOW GREEN PARK
17. RIVERSIDE GREEN
18. CREDIT MEADOWS
19. BEAVER POND
20. FLETCHERS PUBLIC SCHOOL
21. FLETCHERS FLATS
22. SWINBOURNE MEADOWS PARK
23. ST GREGORY SCHOOL
24. MAHOGANY FARM PARK
25. TRAIL CONNECTION TO NEIGHBORHOOD
26. BIENVELL TRAIL COMMON
27. ETC CREEK TRAIL
28. LEVI CREEK
29. AGRICULTURAL LANDS
30. FLETCHERS FLATS
31. SANFORD FARM (PRIVATE)
32. ST BARBARA SCHOOL
33. WOODLOT
34. AGRICULTURAL LANDS (LAKE BED FIELD, WET)
35. CREDIT VALLEY CONSERVATION HEAD OFFICE
36. LEVI CREEK SCHOOL
37. ST BARBARA SCHOOL
38. WOODLOT
39. STORM WATER POND
40. STORM WATER POND
41. FUTURE TRAIL-GLAMORGAN
42. MEADOWVALE VILLAGE
43. FARM ROAD CONSTRUCTION AREA
44. FARM ROAD CONNECTION BENEATH 401
45. FARM LAND BRIDGE
46. WOODLOT
47. WETLAND
48. MEADOWVALE CEMETERY
49. HERITAGE PARKLAND/PARKWAY BELT WEST
50. STREETSVILLE GLEN GOLF CLUB
51. STORM WATER POND
52. STORM WATER POND
53. MEADOWVALE HALL
54. MEADOWVALE VILLAGE PUBLIC SCHOOL
55. DAVID LEEDER MIDDLE SCHOOL
56. PARKING AREA (EXISTING)
57. TRAIL PAVILION
58. TRAIL
59. TRAIL UNDERPASS AT DERRY ROAD
60. TRAIL CONNECTION
61. BRAIDED CHANNEL
62. ROBERT F. KENNEDY VOYAGE SCHOOL
63. RIVERGROVE COMMUNITY CENTREPARK
64. HAZEL MCCALLION SCHOOL
65. CHRIST THE KING SCHOOL
66. TIMOTHY STREET MEMORIAL PARK
67. TRAIL LINK
68. FRANK DOWLING PARK
credit river parks strategy
Figure 2.23A: Photographic Survey/Summary of Facilities – North End – Highway #407 to South of Britannia Road West
SCHOLLEN & Company Inc.
MISSISSAUGA
Leading today for tomorrow
NORTH
0 0.5 1.0 1.5 2.0 2.5km


credit river parks strategy
Figure 2.23B: Photographic Survey/Summary of Facilities – South End – South of Britannia Road West to Dundas Street West
EXISTING FACILITIES AND POTENTIAL OPPORTUNITIES
1. FATHER KAMBER CROATION PARK (PRIVATE)
2. PARKING LOT/TRAIL HEAD
3. CHESTNUT HILL
4. ARMOURED BANK
5. FERNHAM DRIVE
6. REMNANT ORCHARD
7. TRAIL CONNECTION TO RESIDENTIAL COMMUNITY
8. TRAIL CONNECTION TO STREETSVILLE GO STATION
9. CULHAM TRAIL LINK TO RIVERWOOD
10. TRAIL BOARDWALK LINK TO MISSISSAUGA VISUAL ARTS CENTRE
11. TRAIL LINK WITHIN HYDRO CORRIDOR
12. RIVERWOOD CONSERVANCY
13. MISSISSAUGA VISUAL ART CENTRE
14. ARTISTS STUDIO
15. PARKING LOT
16. TERRACE GARDEN (UNDER CONSTRUCTION)
17. PARKING LOT
18. CITY OF MISSISSAUGA - FENCED PARCEL
19. POTENTIAL TRAIL LINK TO MISSISSAUGA ROAD
20. TRAIL ABUTMENT
21. TRAIL CONNECTION TO COMMUNITY
22. HEWICK MEADOWS
23. STREETSVILLE VILLAGE PARK
24. FIRE HALL
25. ADAMS BREEDING COMPANY
26. BARBERTOWN PARK
27. CAROLYN CREEK PARK
28. ADAMS BREEDING COMPANY
29. FORMER WEIR DAM
30. PARKING LOT
31. PRIVATE ESTATE
32. TRAIL CONNECTION
33. TRAIL TERMINUS
34. TRAIL CONNECTION
35. STREETSVILLE GO STATION
36. STREETSVILLE CEMETERY
37. TRAIL
38. STREETSVILLE MEMORIAL PARK
39. STREETSVILLE KINSMEN SENIOR CENTRE
40. FORMER RAIL BED
41. BRAIDED CHANNEL
42. TRAIL CONNECTION TO MAIN STREET
43. TRAIL CONNECTION TO MAIN STREET
44. VIC JOHNSTON ARENA
45. BROWNS HEIGHTS PARK
46. WOODLANDS PARK TRAIL
47. BONNIE BRAE PARK
48. BONNIE BRAE PARK
49. BONNIE BRAE PARK
50. MARGRATH PARK
51. BEDFORD COMMON
52. BEDFORD COMMON
53. HYDRO CORRIDOR
Study Boundary
Photo Reference
Regulation Line (CVC)
100 year Flood Line
Feature Sites
Existing Facilities/Opportunities
Existing Sidewalks
Existing Informal Trails
Watercourses
Current Construction Sites
Existing Sports Facilities/Fields
Greenbelt Designation
Existing Cemetery
P-331
RIVERWOOD
P-462
NOT YET NAMED
(former Pinchin Lands)
P-114
STREETSVILLE MEMORIAL
PARK
P-60
ERINDALE PARK
HIGHWAY 403
GO RAIL
QUEEN ST SOUTH
MISSISSAUGA
Leading today for tomorrow
SCHOLLEN & Company Inc.
NORTH
0
0.5
1.0
1.5
2.0
2.5km

Strengths, Weaknesses, Opportunities and Threats (SWOT)

Source: http://www.flickr.com/photos/andy-erna/5251434873/sizes/l/in/photostream/

2.7

2.7.1 Tourism Opportunities
2.7.1.1 Existing Tourism-Based Facilities
2.7.1.2 Opportunities to Expand Tourism Facilities

2.7 Strengths, Weaknesses, Opportunities and Threats (SWOT)

Utilizing the findings of the background review, desktop and field inventory, contextual assessment and community consultation exercises as a base, the situation of the CRPS study area was described in terms of "Strengths" and "Weaknesses" and "Opportunities" to be capitalized upon in the process of generating the strategy. In addition, "Threats" that have the potential to negatively influence or undermine the Strategy were also identified. The catalogue of "Strengths", "Weakness", "Opportunities" and "Threats" identified as a product of the inventory and consultation processes is provided in Appendix K.

2.7.1 Tourism Opportunities

The Credit River Parks System holds the potential to become a premier visitor destination, offering a well-designed range of amenities and experiences which are compatible with local environmental conditions and local businesses, reflective of constituent needs, and integrate innovative and sustainably engineered solutions.

The potential to grow tourism throughout the Credit River Parks System required an identification and evaluation of what tourism-related initiatives are currently operating within the study area. These represent opportunities that can be capitalized on in order to improve visitor experience and increase City revenue.

Precedents

There are a number of successful precedent projects that connect tourism and economic development initiatives with natural heritage protection and cultural heritage interpretation and celebration centered around rivers and valley corridors. Specific examples are described below:

- River Valley Alliance, Alberta, Canada
  The River Valley Alliance (RVA) was established with the goal of creating an integrated riverfront park along an 88km reach of the Saskatchewan River. The group was formed in 2003 and includes representatives from the seven municipalities that the river valley traverses, including the City of Edmonton. The RVA generated a plan to guide the preservation, restoration and enjoyment of the river. The river system knits together a necklace of parks and incorporates facilities for passive and active recreation, tourism and interpretation. Like the Credit River valley, the park will support a rich and diverse natural heritage system and a number of important cultural heritage sites. The project is supported by the municipalities that are situated along the river corridor as well as a number of NGOs. The park area includes golf courses and other private lands. Recreational amenities include trails, active parks, campsites, ski hills and kilometers of trails. The river valley park is promoted jointly by the municipalities and the River Valley Association.

- Red River Valley, Manitoba, Canada
  The Red River is Manitoba's largest and most historically significant river. The river originates in the mid-western United States and flows northward to Lake Winnipeg. The Red River is designated as a "Canadian Heritage River". The river was one of the centres of the fur trade and has a rich history. The river is a significant feature within the City of Winnipeg's landscape and the redevelopment of the riverfront has served as a catalyst for urban renewal

and economic development within the City. Tourism and recreation along the Red River are promoted by 'Rivers West' (Red River Corridor Inc.), a not for profit organization that was established with the overall objective of 'developing the Red River corridor as a destination'. The mandate of the organization is to 'create and implement a long term tourism and conservation strategy focusing on the development, promotion and management of the natural, tourism, cultural and heritage and recreational resources of the Red River from Emerson Lake to Winnipeg'. The organization is supported by various levels of government and the municipalities that are located within the region. The organization operates a program entitled 'Routes on the Red' that includes self-directed and guided tours and interpretive programs. Tours are organized under the themes of:

- Winter Routes;
- Cross-Country Ski Tours;
- Fur Trading Routes;
- Settlers Routes Natural and First Nations Routes; and,
- Arts and Culture Routes.

Although smaller than the Red River valley in area and extent, the Credit River offers similar opportunities for tourism development based upon its rich history.

- Campbell River, British Columbia, Canada
  Campbell River is promoted as the 'Salmon Capital of the World' and has been positioned as an adventure and ecotourism destination. Campbell River flows from John Hart Lake to the Inside Passage. Campbell River is both the name of the river and the city that is situated at the confluence of the river and the strait. Although tourism is centered around sport-fishing, a number of nature-based recreational pursuits including kayaking, bird watching, hiking and canoeing are popular within the area. The Credit River is one of Ontario's most important salmon fisheries and this attribute, like Campbell River, should be promoted as a principal tourism and economic development theme.

- Miramichi River, New Brunswick, Canada
  The Miramichi River valley is located in eastern New Brunswick and is an important natural recreational, and tourism resource. The river is renowned for its fishery that supports one of the largest populations of Atlantic salmon in North America. Tourism within the river valley is promoted by the Miramichi River Tourism Association. The Association promotes the natural attributes of the river valley along with local tourism enterprises, festivals and events.

- Grand River Country, Ontario, Canada
  The Grand River is a designated 'Canadian Heritage River' that extends from Dundalk, Ontario to Lake Erie at Point Maitland. The river has a rich heritage related to First Nations habitation, European settlement, ship-building and industry, the river valley affords a wide variety of recreational opportunities, both land and water-based. The valley corridor encompasses both public and private lands and major recreational facilities along the river corridor include golf courses, parks and trails. Tourism destinations abound along the length of the Grand River valley including numerous historic villages and towns. Tourism and visitor experience is promoted by 'Grand River Country', a joint promotional effort of the various municipalities that the river valley traverses including:

- Elora and Fergus Tourism;
- Wellington North;
- City of Guelph;
- St. Jacobs Country;
- County of Brant;
- City of Brantford Tourism; and,
- Six Nations Tourism – Grand River Territory.

This joint marketing program benefits all of the partners involved and promotes the attributes, experiences and attractions located along the entire length of the river corridor.

- Hudson River Valley, New York State, USA
  The Hudson River Valley extends from New York City northward through New York State to the Adirondack Mountains north of Albany. The river valley is over 500km long and is known as 'America's Rhine' and includes a 65km reach that has been designated as the 'Hudson River Historic District', a "National Historic Landmark". The river is also designated as an 'American Heritage River'. The river valley encompasses a number of important heritage and natural areas. Tourism is promoted by 'Hudson River Valley' and is supported by the towns and municipalities that are located along the river. The tourism association promotes events, tours and programs as well as attractions, accommodation and dining establishments. The valley is rich in history and affords a range of nature-based tourism experiences.

- Rouge Park, Toronto and Markham, Ontario, Canada
  Rouge Park is North America's largest urban wilderness park, encompassing approximately 5,000ha along the Rouge River and Little Rouge River valleys. The management of the park was recently assumed by Parks Canada establishing Rouge Park and Canada's first urban National Park. The Rouge River valley encompasses a number of important First Nations heritage sites and is the site of the Carrying Place Trail, a historic aboriginal and trading route. Park programs are focused on passive recreational pursuits and nature-based experiences. Natural and cultural heritage appreciation are promoted. Recreation and tourism programs are directed by the Rouge Park Heritage Appreciation and Visitor Experience Plan (HAVE) that provides a comprehensive summary of the natural and cultural heritage resources of the park and sets out interpretive themes to guide visitor experiences. Rouge Park has adopted an approach to tourism that is rooted in education and stewardship and includes guided tours led by Rouge Park staff, volunteers and stewardship groups.

In addition to the above examples, other communities and tourism marketing agencies have utilized the following methods to promote visitation:

- Marketing programs that promote the parks and collaboration with the tourism industry. The Niagara Parks Commission has a good model for marketing and promoting the Niagara Parks system including the parks and attractions that are located along the Niagara River corridor in the Niagara Region;
- Providing visitors with easy access to information, in the form of brochures, information-centres, well-designed websites, mobile phone-app (Ottawa Parks and Recreation 2.0), etc;
- Conducting research studies on local park tourism opportunities and what would be necessary to support them;

- Hosting cultural events. For example, the Mariposa Festival at Tudhope Park in Orillia, Ontario;
- Offering superior natural and recreational facilities, such as first-class trails, water parks, nature appreciation centres or playgrounds; and,
- Promoting and providing opportunities for water-based sports, and passive or small craft sailing and power boating which may be found at the Toronto's outer harbour boating clubs.

2.7.1.1 Existing Tourism-Based Facilities

Many aspects of nature-based tourism and recreation currently take place within CRPS study area. For example, the Credit River Parks system offers excellent opportunities for fishing, picnicking, tobogganing, cross-country skiing, and snowshoeing. These activities can and do bring visitors from surrounding regions to enjoy the parks facilities and natural elements. Although outside of the study area, many of the conservation areas in Mississauga offer excellent opportunities for recreation and an experience of nature that are attractive to visitors from in and outside the City.

Heritage Mississauga currently hosts heritage walking tours in a number of locations adjacent to the Credit River, including Meadowvale Village Heritage Conservation District and North and South Streetsville. Heritage Mississauga is also creating trailhead signs that highlight the natural and human history along the given routes of trails with some areas in the study area. (Heritage Mississauga - http://www.heritagemississauga.com/index.php).

'Doors Open' is a special event put on by the City of Mississauga with Ontario Heritage Trust, which involves opening the doors of unique and significant buildings to the public. The itinerary for the "Doors Open" event changes from year to year, however, past "Doors Open" events have included sites within the study area including Riverwood, Meadowvale Heritage Village and the Franklin House. (City website: http://www.mississauga.ca/file/COM/2010_Doors_Open_Flyer.pdf). These types of events and activities offer place-based, cultural heritage related tourism opportunities in the Credit River.

Opportunities also exist to capitalize on synergies with downtown business areas, such as in Streetsville, where the park is in close proximity to local restaurants, shopping, coffee and ice cream shops. For example, visitors could be encouraged to visit Streetsville Memorial Park, then take a walk in downtown Streetsville and stop for an ice cream or refreshments on an outdoor patio.

The City of Mississauga currently provides visitors and residents with detailed information about the Credit River Parks on the City of Mississauga website, such as the types of facilities available at each park, locations and maps, closures (City website: http://www.mississauga.ca/portal/residents/parks). People can also book special events, weddings and picnic and pavilion rentals. This website provides a good foundation for increasing tourism through improved communication and information technology. The Mississauga Toronto West Tourism website currently promotes and offers information about some of the parks in Mississauga, such as Jack Darling Park and the Waterfront Trail. There is potential to build on this and improve promotion of Credit River Parks on this website and in other Mississauga Toronto West Tourism materials (Mississauga Tourism website - http://www.mississaugatourism.ca/Mississauga_Tourism_148.aspx).

11. Former ERINDALE HYDRO DAM (c.1910) Erindale Park, Dundas Street West

Construction on the dam began in 1904, however delays prevented it from being complete until 1910. When complete, the dam and hydro station produced electricity for the New Toronto area. The dam flooded much of the valley, creating a 125-acre lake where Erindale Park is today. Ontario Hydro operated the site from 1916 until 1923 when the facility was closed. In 1941 the lake was drained and the dam dynamited. In 1977, large portions of the dam and the hydro generating station were removed. Partial remnants, including a portion of the dam and the hydro tunnel which led to the generating station survive.

12. ERINDALE COMMUNITY HALL (c.1928) 1620 Dundas Street West

In the last quarter of the 19th Century, the Parish Hall, General Store and Post Office, and the Royal Exchange Hotel formed the commercial core of Erindale. In 1919, fire swept Erindale, destroying much of its old core, including the original hall on this site. A community-based committee was formed to oversee the building of a new hall. The new hall was officially opened in 1928 by Lieutenant Governor W.D. Ross. Still owned and operated by a Board of Directors and separate from municipal support, the Erindale Community Hall hosts many community events and is available for public rental.

13. BARKER-KELLHAMMER HOUSE (c.1921) 2581 Mindemoya Road

This two-and-a-half storey red brick house was built immediately following the fire of 1919, and was finished in 1921. The house was built for John and Catherine Barker and their family following the loss of the original home and general store. This picturesque home has been a private residence throughout its history. Also remaining on the property is an outbuilding that was once connected to Burke's implement shop.

14. McEWAN-WILKINSON HOUSE (c.1835) 2537 Mindemoya Road

This vernacular home is one of the older surviving buildings in Erindale. Contained within the home are remnants of an earlier log cabin, likely built circa 1835. The home was expanded in the 1870s and 1950s to its present layout, before suffering a fire in 1975. The house has served, over the years, as a farmhouse, chicken coupe, a gatehouse to the Armour Estate, hotel, and private home.

15. BLAIR-BURKE HOUSE (c.1835) 2595 Jarvis Street

This house is believed to be the oldest surviving building in Erindale Village, and may have been built Ira Van Valkenburgh, a miller, or John Blair, a carpenter, between 1835 and 1845. The property was purchased in 1902 by George Burke who ran an implement shop directly across the street from the house. Local tradition also suggests that the building once housed a small store.

16. TAYLOR-FROEBEL HOUSE (c.1878) 1584 Dundas Street West

Emerson Taylor, who immigrated to Canada in 1837 from Pennsylvania, built this house between 1875 and 1878. Emerson owned the Royal Exchange Hotel, was a local Magistrate and Justice-of-Peace, and he donated land for the building of the nearby Methodist Church in 1877. Emerson also owned a sawmill, knitting mill, and a fanning mill that produced wood furniture and grandfather clocks. A later owner was Vin Robbinson who ran a blacksmith shop and hardware store.

17. ERINDALE PRESBYTERIAN CHURCH (Formerly Springfield Methodist Church) (c. 1877) 1560 Dundas Street West

Emerson Taylor, owner of the Royal Exchange Hotel, allowed Methodist services to take place in the hall above the hotel drive shed for many years. Congregation members eventually questioned the appropriateness of the venue due to the alcohol being served in the hotel. As a result, Emerson donated a corner of his own land for a new church to be built. In 1877 the congregation commissioned Christopher Bamford of Streetsville to build the church. The Springfield Methodist Church lost its original spire circa 1921, and in 1925 became the Erindale United Church. The United congregation relocated in 1964, and sold this building to a Presbyterian congregation. The spire was replaced in 2010.

18. Former ST. PETER'S ANGLICAN RECTORY (c.1861) 1556 Dundas Street West

Under the direction of Reverend Thomas Hodge, an Anglican Rectory was built on this site in 1861, replacing a former inn that had been lost to a fire. Known as the "Old Manse", the building was built by local resident Thomas Barker in an austere Georgian Revival style. The building was sold in 1960 and converted to commercial uses. Major restorations to this Designated heritage building were undertaken in 2006 and 2007.

19. VOKES-RUSSELL HOUSE (c.1930) 1484 Adamson Street

This stone house was likely built by Miles Vokes, a stonemason, between 1925 and 1935, either for the Wilson family or for subsequent property owner, Doctor William Russell. Russell, a Toronto physician, purchased this property in 1928. Once referred to as the "Chatham House", the property once consisted of all of the land east of Proudfoot Street in the Village, with a private lane leading to Dundas Street and a gatehouse.

20. BANNAN-RAINVILLE HOUSE (c.1855) 1532 Adamson Street

Relatively little is known about the history of this early farmhouse. It is believed to have been built circa 1855 by James Bannan, and later was owned by the Wilson, Wilcox, Hopkins and Rainville families. In 1990 the house was relocated slightly east of its original location onto a new basement foundation.

21. LEES-FORD HOUSE (c.1917) 2505 Jarvis Street

This home was built circa 1917 for the Lees family, and from 1933 to 1937 was home to local historian and author Verna Mae Weeks' family. In 1937 the house and surrounding property were purchased by John Huston, and this house served as the gatehouse for his estate. It was later owned by the Ford family, amongst others.

22. "RIVERBEND" Huston-MacDonald House (c.1930) 2470 Jarvis Street

This house was built by financier and importer John Huston around 1930, who dubbed the property "Riverbend". Later owners included the Carruthers and MacDonald families. The home, built from Credit Valley stone, was originally located a short distance west of its current location, and was relocated in the early 1970s.

23. SCHNELLER LOG CABIN (c.1855) 2542 Jarvis Street

Built of hand-hewn logs around 1855, this log cabin originally stood near Molesworth, Ontario, and was relocated here by the Schneller family in the late 1970s.

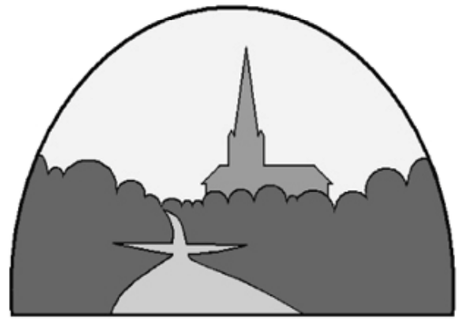
HERITAGE MISSISSAUGA

A Heritage Tour

Erindale

"The Crook of the Credit"

Est. 1825



Enjoy a tour of some of the many landmarks of Erindale Village and learn about the rich historical roots of this vibrant community.

www.heritagemississauga.com
www.erindalevillage.ca
www.mississauga.ca/portal/residents/localhistory
www3.sympatico.ca/chessie217

Figure 2.24: Heritage Tour for Erindale Brochure

Lastly, it is important to mention that Tourism has been identified as a recommendation in the Master Plan for Parks and Natural Areas in Mississauga. The Plan suggests that tourism requires a focused strategy, market assessment and economic feasibility studies, as well as a number of in house competencies, such as understanding of the market, service quality management, leisure pricing policy, leisure marketing, tourism and resource economics, finance and tourism management (Master Plan for Parks and Natural Areas – City of Mississauga - http://www5.mississauga.ca/rec&parks/websites/future_directions/master_plan_pna.pdf).

2.7.1.2 Opportunities to Expand Tourism Facilities

The varied landscapes along the Credit River afford a number of recreational opportunities such as hiking, cycling, picnicking, and other pursuits. The natural heritage elements can provide visitors with opportunities for enjoying and experiencing nature, such as bird watching, nature walks and simply relaxing. The River itself enables additional water-based recreational experiences which can be built upon to enhance tourism potential, such as kayaking, canoeing and angling. Additionally, the unique cultural heritage of the Credit Valley can offer visitors unique locally specific opportunities for cultural and historical interpretation based on the legacies of First Nations ancestry and pre and post-European settlement.

By offering a range of amenities and experiences the Credit River Parks System will appeal to Mississauga residents, and visitors from surrounding regions, thereby becoming an important source of tourism and economic development for the City of Mississauga. Tourism opportunities within the CRPS would benefit from the establishment of a Visitor's Centre. This facility would serve to provide visitors with information on the various tourism opportunities and programs offered throughout the CRP System as well as providing orientation information. In addition to amenities and experiences, increasing tourism will require strategic communication, branding and marketing, in cooperation with Mississauga Tourism.

With an emphasis on tourism, however, the Strategy also recognizes the importance of protecting and enhancing the ecological assets within the study area. Amenities and attractions aimed at attracting tourism should be planned to respect the ecological functions of the park and implement best management practices and monitoring strategies.

Summary of Background Review, Inventory and Assessment Tasks

2.8

credit river parks strategy
FOR DISCUSSION PURPOSES ONLY

2.8 Summary of Background Review, Inventory and Assessment Tasks

The process of inventory, analysis, consultation and synthesis revealed a series of issues to be addressed and opportunities to be capitalized upon in the process of generating the strategy. Key issues identified as a product of the process included:

- Requirements for conformity with policies and regulations;
- Private land ownership;
- Ecological sensitivity within many parts of the parks system;
- Natural hazards – floodplain, slope stability, ice, potential impacts on natural and cultural heritage resources from uses, geomorphic change;
- Barriers to connectivity – railways and roads, topography and environmental sensitivity;
- Integration with existing facilities – UTM, Riverwood, Erindale Park;
- Public safety; and,
- Requirements for accessibility.

Opportunities afforded by the site and its context are numerous and relate primarily to the diversity of the landscape, cultural context of the site within the City, and richness of cultural and natural heritage resources. In addition, the valley corridor is largely intact and well connected both along its length and to the communities beyond. The seven "Feature Sites" each have unique attributes and hold the potential to complement one another and the valley corridor as a whole in terms of ecological function, program and diversity of user experience. The river itself holds great potential as a regional attraction for anglers and offers opportunities for water based recreation including canoeing and kayaking.

The river is relatively healthy but there is the potential to enhance water quality and habitat through the implementation of technical solutions both within the park system and within the community beyond the limits of the valley.

Several precedents exist as models to guide tourism development and each of these provides inspiration to direct the generation of a strategy to optimize the recreational and tourism potential of the Credit River valley park system within Mississauga.