



# CLAIREVILLE

Conservation Area  
Land Management  
Implementation Plan

December 2014



## AUTHORITY RESOLUTION

At Meeting #10/14 of Toronto and Region Conservation Authority held on January 9, 2015 the following was adopted by Resolution #A212/14.

WHEREAS the Claireville Conservation Area Management Plan Update was approved by Toronto and Region Conservation Authority (TRCA) in 2011;

AND WHEREAS TRCA is in receipt of funds to implement the Claireville Conservation Area Land Management Implementation Plan;

THEREFORE LET IT BE RESOLVED THAT the Claireville Conservation Area Land Management Implementation Plan be approved;

AND FURTHER THAT TRCA staff continue to implement the Claireville Conservation Area Management Plan Update.

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## EXECUTIVE SUMMARY

The Claireville Conservation Area Management Plan Update (Toronto and Region Conservation Authority, 2012) was prepared by Toronto and Region Conservation Authority (TRCA) in partnership with the Humber Watershed Alliance, municipal partners and the general public. The updated Claireville Conservation Area Management Plan is a comprehensive management plan to guide future use of this conservation area and replaces the 1997 version. New policies, plans and other studies as well as current land management planning techniques were considered in the updating of the management plan.

Based on input from partners, stakeholders and the public, the following statement was developed to reflect a strategic vision of Claireville Conservation Area in the next 50 years and to provide strategic direction of the updated management plan:

Claireville Conservation Area is an oasis for wildlife and people – a healthy, diverse urban forest and one of the largest natural corridors in a major city region. It is a destination where the natural and cultural heritage resources are protected and restored through partnerships and community-based stewardship. Visitors enjoy year-round nature-based recreation and education experiences while respecting the unique environmental features.

Management recommendations were developed based on these zones and information from relevant plans and policies. It was anticipated that implementation of the plan would take place over a 10 year period. Detailed concepts and cost estimates were not developed as part of the management plan update. Toronto and Region Conservation Authority has worked to implement the recommendations of the management plan since approval of the updated management plan for Claireville Conservation Area in 2011.



The Claireville Conservation Area Land Management Implementation Plan will guide TRCA and its partners in the continued implementation of the Claireville Conservation Area Management Plan Update in the near future. The implementation plan considers the recommendations of the updated management plan, as well as new founded influences such as Building The Living City: 10 Year Strategic Plan 2013-2022 (Toronto and Region Conservation Authority, 2013).

It was recognized that a comprehensive implementation plan for the Claireville Conservation Area Management Plan was required to determine priorities based on current influences and funding frameworks. The result is the development of the Claireville Conservation Area Land Management Implementation Plan.

The Claireville Conservation Area Land Management Implementation Plan provides additional implementation details for key recommendations in the Claireville Conservation Area Management Plan Update and projects and initiatives that are consistent with the vision and

recommendations presented in the [Claireville Conservation Area Management Plan Update](#). The projects were then evaluated based on anticipated funding and associated restrictions, urgency, ease of implementation, and potential for partner support and corresponding supporter recognition. Priority projects include the following:

- Completion of the West Humber inter-regional trail connection
- Wiley concrete bowstring bridge rehabilitation designs and restoration
- Natural gas service installation to Claireville dam and the dam operator house
- Site conditions and assessments
- Dam and dam operator house septic system replacement
- Revision of Claireville dam's operation, maintenance and surveillance manual
- Site servicing improvements
- Site securement and protection
- Gathering event venue feasibility study and business case development
- Natural area enhancements.

Many of these projects will each take 12 months to three years to complete, while others are opportunistic and some are required on an ongoing basis. The initiatives detailed in the [Claireville Conservation Area Land Management Implementation Plan](#) are estimated to cost \$23,510,000.00, including contingency and surcharges but excluding HST (in 2014 dollars), to fully implement. A prioritized list of projects is included in the [Claireville Conservation Area Land Management Implementation Plan](#).



# 1 INTRODUCTION

## 1.1 Claireville Conservation Area

Claireville Conservation Area is an 838 hectare (2,100 acre) parcel of land owned by Toronto and Region Conservation Authority (Map 1.1) that includes 747.51 hectares of land and approximately 90 hectares of the Claireville Reservoir. It is located in the West Humber subwatershed and totals almost 15 per cent of the lands owned by Toronto and Region Conservation Authority in the Humber River watershed. Within Claireville Conservation Area, the Salt Creek converges with the West Humber River, north of Regional Road 107 (also known as Queen Street East).

Claireville Conservation Area is located in the City of Brampton, Regional Municipality of Peel (728 hectares of land) and in the City of Toronto (19 hectares of land). The City of Mississauga abuts the property to the southwest and the City of Vaughan in the Regional Municipality of York abuts the property to the northeast. This proximity to major urban centres renders Claireville Conservation Area one of the most accessible TRCA properties available for public use by the Greater Toronto Area population.

The Claireville Conservation Area lands are bounded by Finch Avenue to the south, Goreway Drive to the west, Valley Creek Drive to the north and Highway 427 to

the east. Highway 407, Steeles Avenue and Regional Road 107 (Queen Street East) transect the property, and Highway 50 is located just east of the area. In total, the Claireville property is approximately seven kilometres long and ranges between 0.8 and 2.0 kilometres wide.



Claireville Conservation Area is one of the largest tracts of land owned by TRCA. It contains significant natural and cultural heritage features, is highly accessible to the public, and has recreation, tourism and education facilities and programs. The Watershed Plan (Metropolitan Toronto and Region Conservation Authority, 1980) defines conservation areas as lands capable of providing “a broad range of outdoor recreation opportunities supported by the development of facilities and services” (p.52). Toronto and Region Conservation Authority closed Claireville Conservation Area to public vehicle access for financial reasons in 1990. However, sections of the property that were leased to private interests, or run by TRCA as a specialized business, remained open, and access was limited to pedestrians and those accessing the leased areas.



Toronto and Region Conservation Authority completed a management plan for Claireville Conservation Area in 1997. The management plan identified Claireville Conservation Area as one of the most important opportunities for recreation, education and environmental appreciation destination areas in the Greater Toronto Area. It has since been recognized as an integral part of the local natural heritage system, cultural heritage fabric and recreation destinations. The conservation area was officially re-opened in May 2010 to allow visitors to enjoy its significant natural and cultural heritage features.

When the Claireville lands were first acquired in 1957, much of the property was actively used for agricultural purposes, which dominated the land use of the property and surrounding communities. Several woodlots were also present. Today, residential and industrial developments surround most of Claireville Conservation Area, and only a few agricultural fields (70 hectares) and woodlots (186 hectares of forest cover) are still in existence (see Table 1.1 for a breakdown of the current natural cover in Claireville Conservation Area). It should be noted that natural cover was captured by digitizing using 2002 orthophotography and has not yet been confirmed by field evaluations.. Recent reforestation efforts have increased the amount of forest cover at Claireville Conservation Area.

Claireville Conservation Area lies on the Peel Clay Plain physiographic region. The region defines the character of the vegetation communities that can persist within the area (Chapman & Putnam, 1984). There is a mixture of forest, successional forest, meadows and wetlands at Claireville Conservation Area. The site lies on the boundary between the Great Lakes-St. Lawrence and the Carolinian floristic regions, the latter of which is composed of mixed coniferous-deciduous forest.

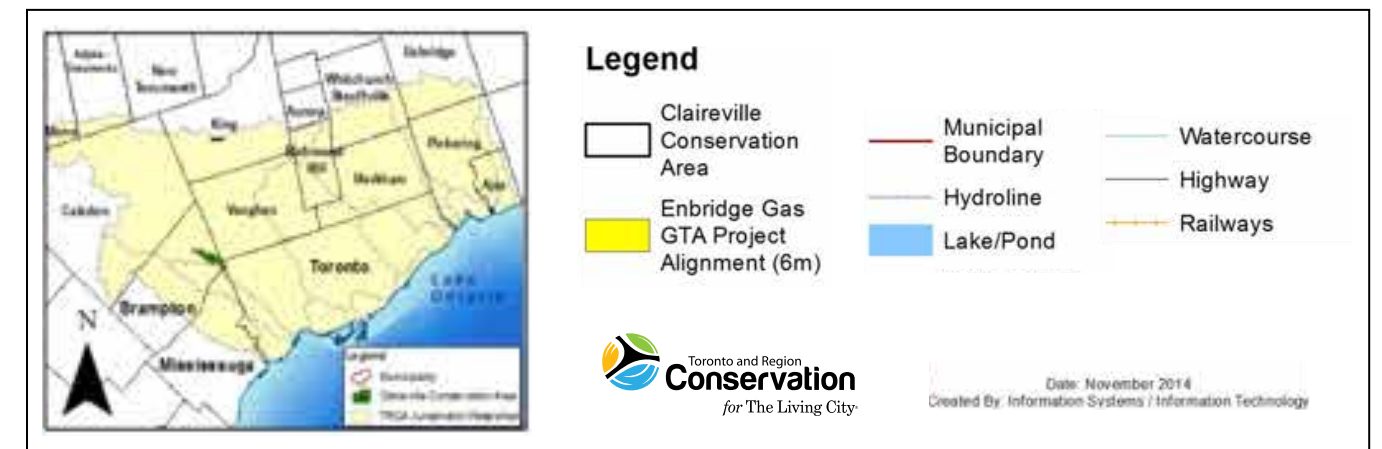
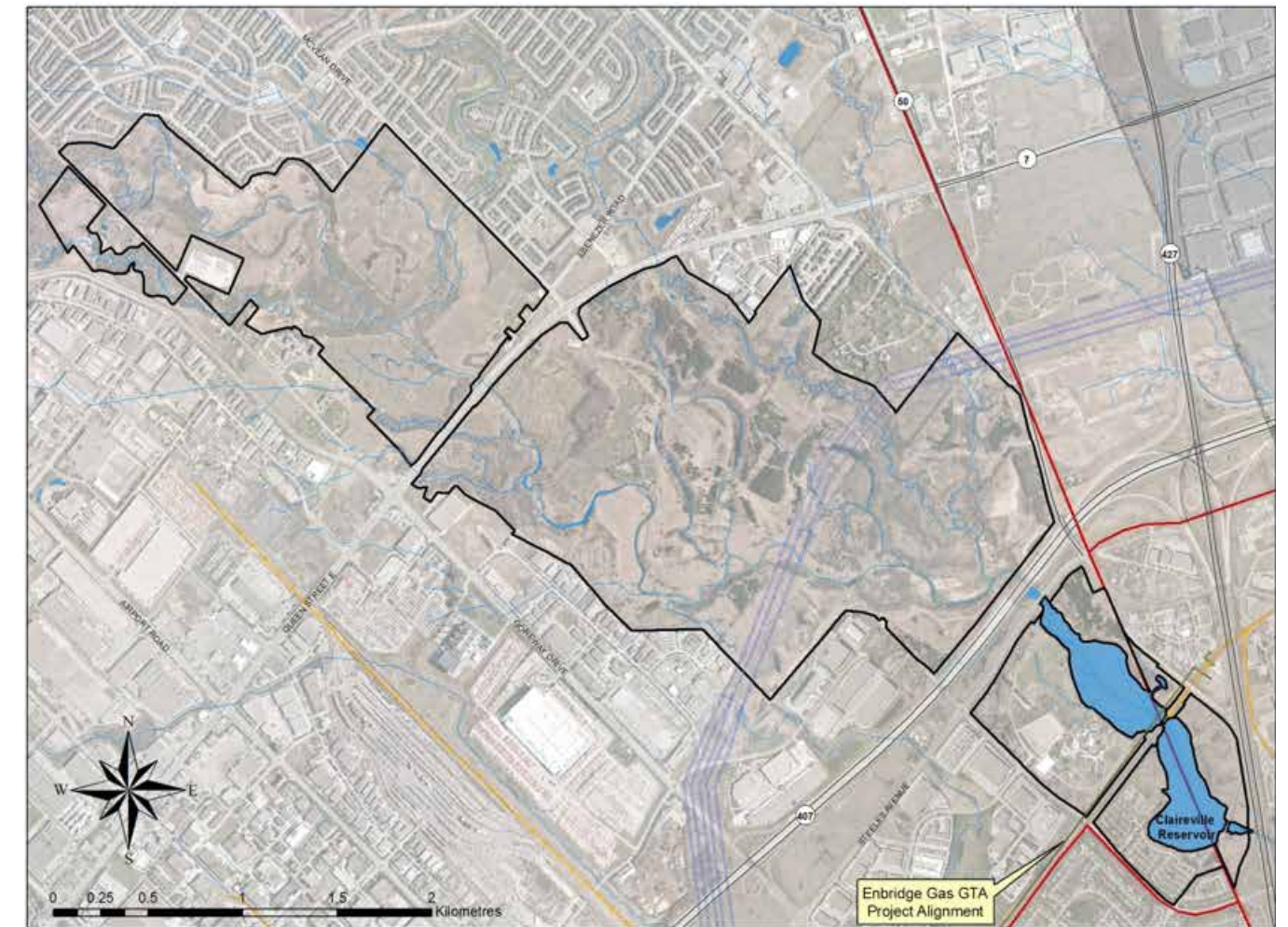


The majority of Claireville Conservation Area lies within and/or adjacent to the West Humber River valley corridor. Numerous watercourses flow through Claireville Conservation Area, and as previously mentioned, the Salt Creek converges with the West Humber River in the Claireville property.

Claireville Conservation Area is the largest natural greenspace area in the City of Brampton and provides attractions such as bird watching, boating, fishing, hiking and equestrian trails, and camping sites. Public use areas include Indian Line Campground, Wild Water Kingdom, Etobicoke Field Studies Centre and Claireville Ranch.

Map 1.1: Claireville Conservation Area

CLAIRVILLE CONSERVATION AREA LAND MANAGEMENT IMPLEMENTATION CONCEPTS



**Table 1.1:** Natural Cover, Claireville Conservation Area, 2009

LAND COVER TYPE	AREA (HECTARES)	PORTION OF CLAIREVILLE CONSERVATION AREA (%)
Forest	186.08	21.94
Meadow	268.11	31.62
Successional	67.38	7.95
Wetland	5.23	0.62
<b>TOTAL</b>	<b>526.80</b>	<b>62.13</b>

**1.2 Updated Claireville Conservation Area Management Plan, 2012**

Toronto and Region Conservation Authority updated the 1997 management plan for Claireville Conservation Area in 2012. At Meeting #3/10 of the Toronto and Region Conservation Authority Board, held on March 25, 2011, RES. #A47/11 was adopted as follows:

THAT the Claireville Conservation Area Management Plan, dated March 2011, including updates described herein, be approved;

THAT funding for the implementation of the Claireville Conservation Area Management Plan be included in the Toronto and Region Conservation Authority (TRCA) capital budget ten year forecast for Peel Region;

THAT copies of the updated Claireville Conservation Area Management Plan be distributed to members of the Humber Watershed Alliance and Councillors and staff representing the City of Brampton, City of Toronto and Region of Peel who have a jurisdictional interest in the Claireville area;

THAT the Regional Municipality of Peel, City of Brampton and City of Toronto be requested to include consideration of the Claireville Conservation Area Management Plan in planning decisions related to this geographic area;

AND FURTHER THAT TRCA staff continue to work with local community groups on trail options for the alignment in the vicinity of Queen Street and staff invite Authority members to attend a site visit.

At Meeting #7/11 of the Toronto and Region Conservation Authority Board, held on July 29, 2011, RES. #A150/11 and RES. #A151/11 were adopted as follows:

THAT Toronto and Region Conservation Authority (TRCA) staff be authorized to proceed with the construction of the inter-regional trail in accordance with the approved Claireville Conservation Area Management Plan and identified as TRCA's preferred alignment in the drawing included as Attachment 1, dated July 19, 2011;

THAT the construction of the trail be subject to the availability of funding from the City of Brampton; THAT TRCA staff maximize environmental enhancements such as forest establishment, meadow protection, streambank planting, wetland creation and interpretive signs in association with the trail construction to improve public awareness and the overall health and diversity of the property;

THAT staff investigate with stakeholders other appropriate secondary walking trails that will link to neighbouring residential areas (i.e. Dunegrass Gate and McVean Drive) and points of interest within the Claireville Conservation Area;

AND FURTHER THAT authorized TRCA officials be directed to take whatever action is necessary to implement the trail construction including obtaining necessary approvals and the signing and execution of documents.



The updated Claireville Conservation Area Management Plan is a comprehensive management plan to guide future use of this conservation area and replaces the 1997 version. New policies, plans and other studies as well as current land management planning techniques were considered in the updating of the management plan.

Based on input from partners, stakeholders and the public, the following statement was developed to reflect a strategic vision of Claireville Conservation Area in the next 50 years and to provide strategic direction of the updated management plan:

Claireville Conservation Area is an oasis for wildlife and people – a healthy, diverse urban forest and one of the largest natural corridors in a major city region. It is a destination where the natural and cultural heritage resources are protected and restored through partnerships and community-based stewardship. Visitors enjoy year-round nature-based recreation and education experiences while respecting the unique environmental features.

Nine land management zones were applied to Claireville Conservation Area – Agricultural Reserve, Heritage Preserve, Natural Environment, Nature Reserve, Operations, Primary Restoration, Public Use, Residential Lease and Special Management (see Map 1.2). Land management zones identified for the preservation of the natural environment (Nature Reserve, Natural Environment and Primary Restoration) now represent 82 per cent of the property as a result of lands being identified for near-urban agriculture (almost three per cent), heritage preservation (less than one per cent) at the McVean farm site, and an easement for a City of Brampton stormwater management pond (less than one per cent). However, 42 per cent of Claireville

Conservation Area is zoned as Primary Restoration to reflect the intent to improve the natural habitat of Claireville Conservation Area. Meanwhile, 14 per cent of the lands have been identified for Public Use to accommodate public facilities and programming associated with increasing public use and access at Claireville Conservation Area. These lands are generally located around the Paul Flood Memorial building and the former rugby fields. A private residence and operational areas for Indian Line Campground constitute the remaining land zone management allocations.

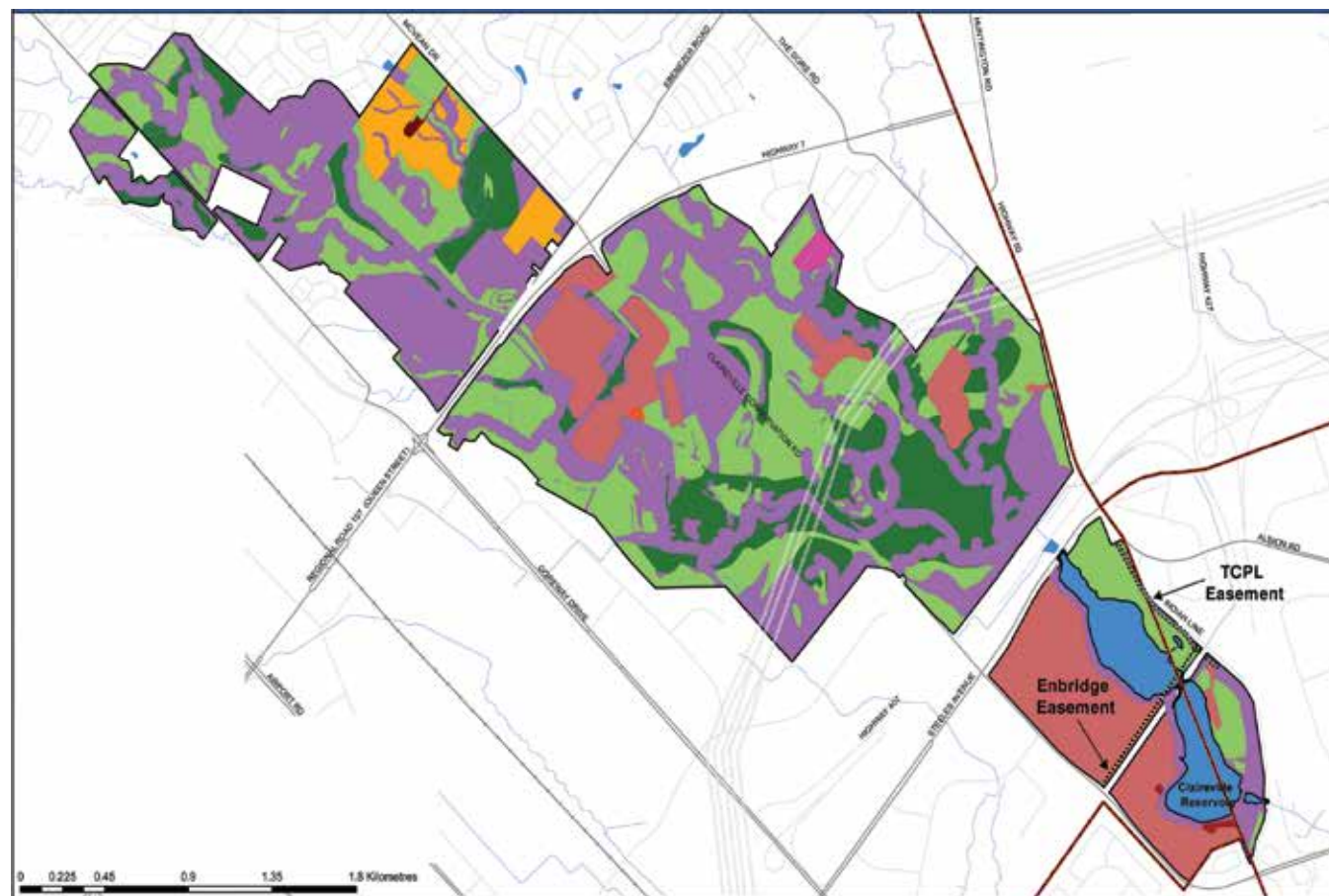
Management recommendations were developed based on these zones and information from relevant plans and policies. It was anticipated that implementation of the plan would take place over a 10 year period. Table 1.2 summarizes the major projects for implementation that were identified in the updated management plan. Detailed concepts and cost estimates were not developed as part of the management plan update. The need to continue to work with its partner municipalities and agencies to incorporate Claireville Conservation Area and the directions provided in the updated management plan into municipal and agency plans and programs was recognized by TRCA.

**1.3 Since the Management Plan was Approved**

Since approval of the updated management plan for Claireville Conservation Area, Toronto and Region Conservation Authority has adopted a new strategic plan (Toronto and Region Conservation Authority, 2013) to guide its interests and operations. As such, projects and priorities have responded accordingly.

Map 1.2: Management zones, Claireville Conservation Area, 2010

CLAIRVILLE CONSERVATION AREA



**Legend**

- Municipal Boundary
- Claireville Conservation Area
- Enbridge Easement
- TCPL Easement
- Lake/Pond
- Watercourse
- Roads
- Railways
- Hydroline

**2010 Management Zones**

- Agricultural Reserve (22 ha)
- Heritage Preserve (1 ha)
- Natural Environment (205 ha)
- Nature Reserve (98 ha)
- Primary Restoration (314 ha)
- Public Use (105 ha)
- Residential: Lease (0.40 ha)
- Operations (1 ha)
- Special Management Zone (3 ha)

**Toronto and Region Conservation**  
for The Living City

Disclaimer:  
The Data used to create this map was compiled from a variety of sources & dates. The T.R.C.A. takes no responsibility for errors or omissions in the data and retains the right to make changes & corrections at anytime without notice. For further information about the data on this map, please contact the T.R.C.A. GIS Department. (416) 661-6800

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Date: December, 2010

Table 1.2: Implementation schedule, Claireville Conservation Area Management Plan Update

ANTICIPATED IMPLEMENTATION TIME	PROJECTS
Immediate (funding or partial funding is allocated)	<ul style="list-style-type: none"> <li>Trail planning, including an inter-regional trail alignment</li> <li>Identifying and securing property boundaries</li> <li>Improved property signage</li> <li>Restoration of the habitat of former agricultural fields and riparian zones</li> <li>Removal of encroachments</li> <li>Installation of repairing fences where necessary</li> <li>Site securement where necessary, e.g. gates</li> <li>Observe public use</li> <li>Monitor and inform dog walkers about Toronto and Region Conservation Authority's policy and operational procedures for managing domestic animals</li> <li>Investigate potential uses for the former Robinson house with the circulation of a request for proposals</li> <li>Develop and improve the parking area and trail head at Regional Road 107</li> </ul>
Short-term (one to three years)	<ul style="list-style-type: none"> <li>Prepare detailed inter-regional trail construction plans including cost estimates, trail development and trail head implementation</li> <li>Improve City of Toronto and City of Brampton day camp sites</li> <li>Develop detailed proposals for public use facilities</li> <li>Develop cultural and natural heritage feature maps</li> <li>Conduct conservation land care inventories</li> <li>Develop a restoration and adaptive re-use plan for the McVean barn</li> <li>Develop a restoration plan for Wiley Concrete Bowstring Bridge</li> <li>Partially restore the Wiley Bridge</li> </ul>
Medium-term (three to five years)	<ul style="list-style-type: none"> <li>Implement the trail plan, including construction and closures</li> <li>Decommission and restore the temporary road permitted to a developer</li> </ul>
Long-term (five to ten years)	<ul style="list-style-type: none"> <li>Restore unused agricultural fields</li> </ul>
On-going	<ul style="list-style-type: none"> <li>Manage a stewardship committee and newsletter</li> <li>Maintain habitat restoration projects</li> <li>Perform trail maintenance</li> <li>Conduct conservation land care audits</li> <li>Review of implementation priorities</li> </ul>



# 2 IMPLEMENTATION PROJECTS

The implementation of the Claireville Conservation Area Management Plan Update requires cooperation between TRCA, its partners and the public. Toronto and Region Conservation Authority has been implementing some of the recommendations of the updated management plan since its approval. However, there are many projects that are outstanding. The following sections provide additional information for projects suitable for implementation at Claireville Conservation Area at this time.

## 2.1 Aquatic and Terrestrial Ecological Management and Restoration

Claireville Conservation Area contains sizeable areas of existing wetland, forest, and riparian cover. Much of the land in southern Ontario has been altered due to past land use practices (e.g. agriculture, urban development). Restoration work in Claireville Conservation Area has been going on since 1996 and is projected to continue until 2020. High priority areas have been substantially improved since 1996 through implementation projects.



There are many opportunities to further increase and enhance natural cover, wildlife diversity and overall ecosystem health within Claireville Conservation Area. These opportunities have been identified through the Claireville Natural Area Enhancement Plan (Toronto

and Region Conservation Authority, 2000) and the draft Claireville Reservoir and Surround Area Natural Enhancement Plan (Toronto and Region Conservation Authority, 2006). The goal of increasing natural cover, wildlife diversity and ecosystem health is being achieved through a multi-year phased enhancement plan. The objectives of this plan are to:

- Create 50 ha of wetland.
- Enhance the diversity of flora and fauna through planting events (e.g. forest, meadow).
- Enhance aquatic and terrestrial habitats by increasing structural habitat and cover.
- Organize volunteers to monitor wildlife and project sites.
- Utilize project sites for education purposes.

These opportunities are indicated on Map 2.1. Some tangible assets will be created by implementing the natural area enhancement plan to its full extent.

Tables 2.1 and 2.2 summarize the terrestrial and stream restoration opportunities at Claireville Conservation Area. They are measured in terms of area, length or number of opportunities, and were then related to typical cost estimates.

**Table 2.1:** Existing terrestrial habitat restoration opportunities, Claireville Conservation Area

TERRESTRIAL HABITAT TYPE	AREA OR LENGTH	COST*
Forest	96.7 ha	\$5,246,600.00
Riparian	9.2 ha	\$524,000.00
Shoreline	1136 m	\$2,272,000.00
Wetland	28.4 ha	\$2,135,800.00
<b>TOTAL</b>		<b>\$10,178,400.00</b>

**Table 2.2:** Existing aquatic habitat restoration opportunities, Claireville Conservation Area

STREAM ISSUE	NUMBER	COST*
Partial and full barriers	41	\$1,230,000.00
Erosion	28	\$1,850,000.00
Access and channel issues	16	\$1,450,000.00
Outfall	22	\$1,675,000.00
<b>TOTAL</b>		<b>\$6,205,000.00</b>

\*Cost estimates do not include contingency, surcharges and taxes, and are in 2014 dollars.

This terrestrial and aquatic ecological management plan supports Toronto and Region Conservation Authority's strategic objective of re-thinking greenspace to maximize its value (strategic plan objective 3) in that it will help create a network of greenspace to connect a healthy and resilient landscape. These efforts are also supported in the updated management plan in sections 3.3.1.3 (primary restoration), 3.3.2.1 (terrestrial resources) and 3.3.2.2 (aquatic resources). Just less than 314 hectares of Claireville Conservation Area are designated as Primary Restoration land management zones. Resource management activities encouraged in this zone include environmental management projects designed to protect, enhance, restore and connect natural features, landforms, species or habitats. The aforementioned habitat restoration projects are part of current and future habitat enhancement plans to restore and connect the natural features in Claireville Conservation Area.

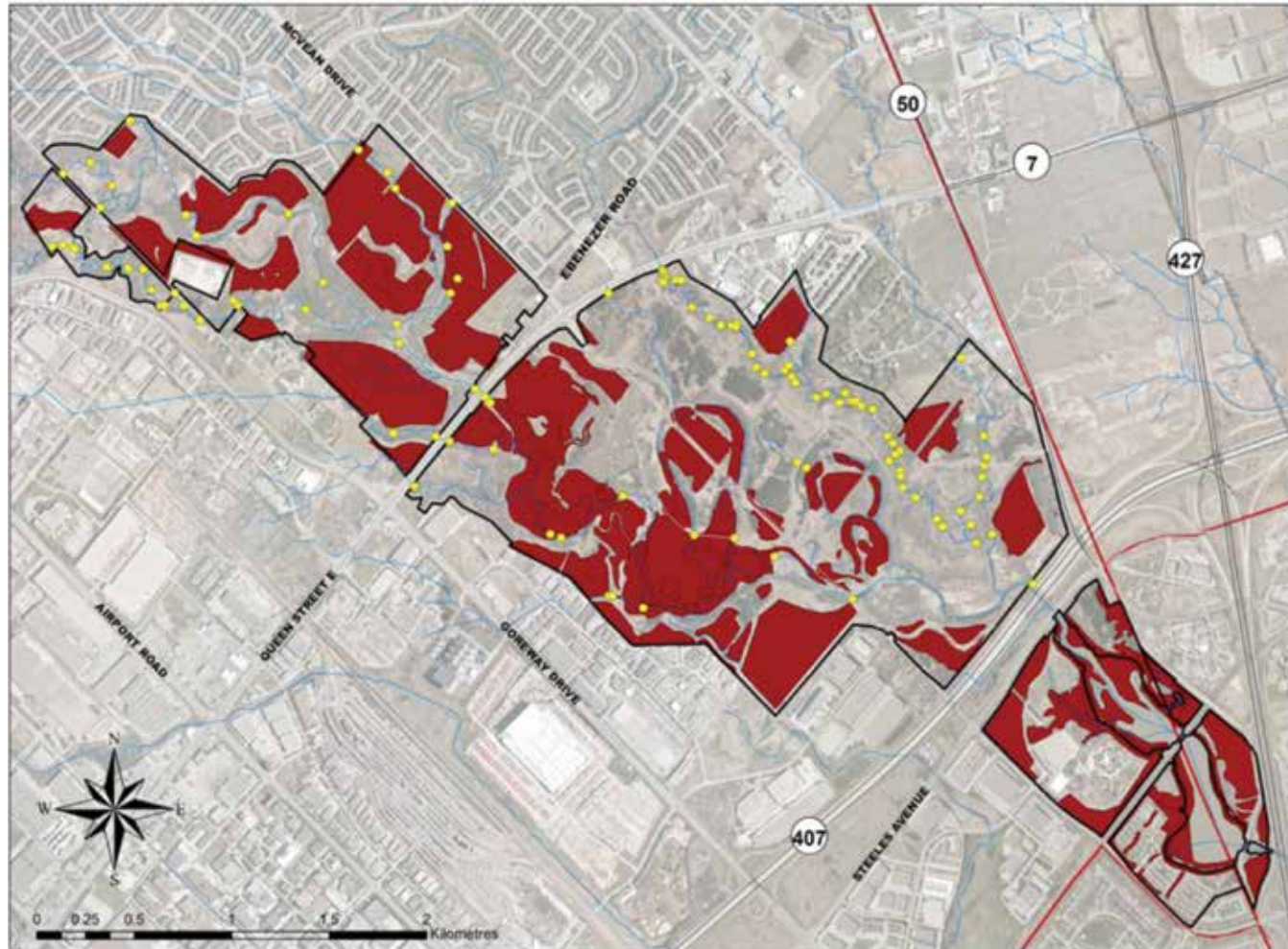
## 2.2 Dam Operation Improvements

The Claireville dam and reservoir are central features of Claireville Conservation Area. Constructed in 1963, the dam was used primarily as a flood control structure to protect downstream properties. The dam is 20 metres high and 300 metres long. Under the Ministry of Natural Resources Lakes and Rivers Improvement Act, which corresponds to an estimated total of 11 or more persons at risk in the dam break inundation zone, the dam has been classified as a very high hazard.



Map 2.1: Aquatic and terrestrial ecological restoration opportunities, Claireville Conservation Area

CLAIRVILLE NATURAL AREA ENHANCEMENT OPPORTUNITIES, CLAIRVILLE CONSERVATION AREA



Several initiatives are required to improve the operation of the Claireville dam. The heating ventilation and air conditioning systems in the dam control building and operators house have reached the end of their life cycle and require replacement. The existing systems at the dam and the dam operator's house both use fuel oil for heat. Replacement with natural gas furnaces is preferred to reduce the environmental impact of the systems. The installation of a gas line from Finch Avenue West to the dam control building and the dam operator's house is estimated to cost \$150,000 plus contingency, surcharges and taxes (see Table 2.3).

Table 2.3: Dam operation improvement projects, Claireville Conservation Area

PROJECT	COST*
Installation of a natural gas service from Finch Avenue to Claireville dam and dam operator house	\$150,000.00
Repair and upgrade of the existing septic system (tank and field) at the Claireville dam and dam operator house	\$30,000.00
Peer review and revision of Claireville dam's operation, maintenance and surveillance manual	\$5,000.00
<b>TOTAL</b>	<b>\$185,000.00</b>

\* Cost estimates do not include contingency, surcharges and taxes, and are in 2014 dollars.

The existing septic tank that services the control building has started to degrade and requires replacement. The estimated replacement cost is \$30,000 plus contingency, surcharges and taxes.

The dam's reservoir has two operating levels. The summer level is 1.3 metres higher than the winter level. Altering the operations, maintenance and surveillance manual to make the winter level the permanent pool, has been recommended by flood management staff. This will accomplish several goals:

- The lower permanent reservoir will create more flood storage reducing the probability of overtopping the dam during extreme weather events.
- The radial arm gates at the dam would no longer be submerged which will extend their service life. Current operating conditions have allowed the gate skins to corrode.
- The higher summer level inundates the upstream area of the reservoir which creates sediment bars which change the river alignment. If the water is maintained at the lower level, the upstream channel will be allowed to permanently establish itself which will assist in the creation of wetlands as part of the natural area enhancement plans, including the terrestrial and aquatic restoration opportunities identified in this plan.

Review and revision of the operation, maintenance and surveillance manual for the Claireville dam is required to complete this initiative. This requires staff time and minor incidental costs, and is estimated to cost \$5,000 plus contingency, surcharges and taxes.

These initiatives support the Toronto and Region Conservation Authority's strategic plan and the Claireville Conservation Area Management Plan Update. By reducing the risk of flooding by altering the reservoir level, the water resources are being managed for current and future generations (strategic plan strategy 2). The opportunities to rehabilitate aquatic habitat, including altered streams, that would be created through the adjusted reservoir level and minimizing the ecological impact on the surrounding area achieved by installing a natural gas line and replacing the septic tank are supported in the updated management plan recommendations in sections 3.3.2.2 (aquatic resources) and 3.3.2.8 (conservation land use and management).

It is anticipated that it would take one year to fully implement all of these initiatives and that tangible capital assets would be created.

### 2.3 Land and Asset Management

Toronto and Region Conservation Authority has a responsibility to care for its properties and assets. Many years of inattention have resulted in many of these being in poor condition and in need of improvement or replacement. Site inspection, servicing, security and protection improvements and upgrades are required to maintain existing infrastructure in a state of good repair at Claireville Conservation Area. The updated management plan included a site securement and protection plan with recommendations for implementation and corrective action (Section 4). In addition, an integral part of Toronto and Region Conservation Authority’s duty of care for its properties is to maintain its assets in good working condition and to reduce and/or eliminate public safety hazards. Fulfilling the management plan also requires improved servicing of Claireville Conservation Area. The following provides additional details on the initiatives to improve and manage the property and its assets (see Table 2.4).



The first initiative relates to site inspection of the lands and infrastructure. This includes, but is not limited to, conditions assessment of the utilities (hydro, gas and septic), inspections and energy audits of the dam house and Paul Flood building, and condition and term assessments for all built infrastructure. It is estimated that \$50,000 plus contingency, surcharges and taxes is required to complete a site conditions inspection.

The second initiative relates to improving site servicing for the Claireville Conservation Area lands. This includes providing spring loaded taps for dog walkers, conducting electrical and water serving assessments for the former rugby lands, locating and assessing the water lines and meters, and other infrastructure improvements identified by the site inspection. Improving site servicing is estimated to cost \$25,000 plus contingency, surcharges and taxes.

The final initiative relates to site securement and protection of the Claireville Conservation Area lands. This includes the removal of identified and mitigation of encroachments, existing obstructions and hazards, installation of fencing and signage at property boundaries and identified encroachment areas, and unauthorized trail development and hazard tree mitigation. Approximately \$25,000 plus contingency, surcharges and taxes is required to secure and protect Claireville Conservation Area.



**Table 2.4:** Land and asset management projects, Claireville Conservation Area

PROJECT	COST*
Site inspection	\$50,000.00
Site servicing	\$25,000.00
Site securement and protection	\$25,000.00
<b>TOTAL</b>	<b>\$100,000.00</b>

\* Cost estimates do not include contingency, surcharges and taxes, and are in 2014 dollars.



Implementation of the property and asset management initiatives described above allows for the maximization of the value of greenspace by rethinking its uses and functions (a strategic objective of Toronto and Region Conservation Authority), and achieves numerous recommendations in the conservation land use and management section of the updated management plan for Claireville Conservation Area (Section 3.3.2.8).

It is anticipated that it will take 12 to 18 months and \$100,000 to fully implement the property and asset management initiatives detailed above, and that some tangible capital assets will be created.

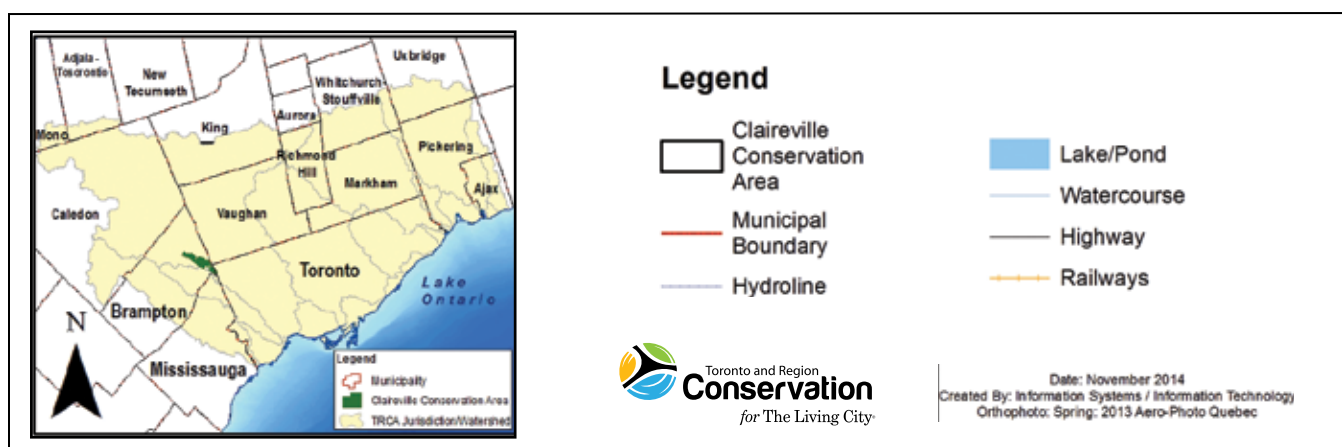
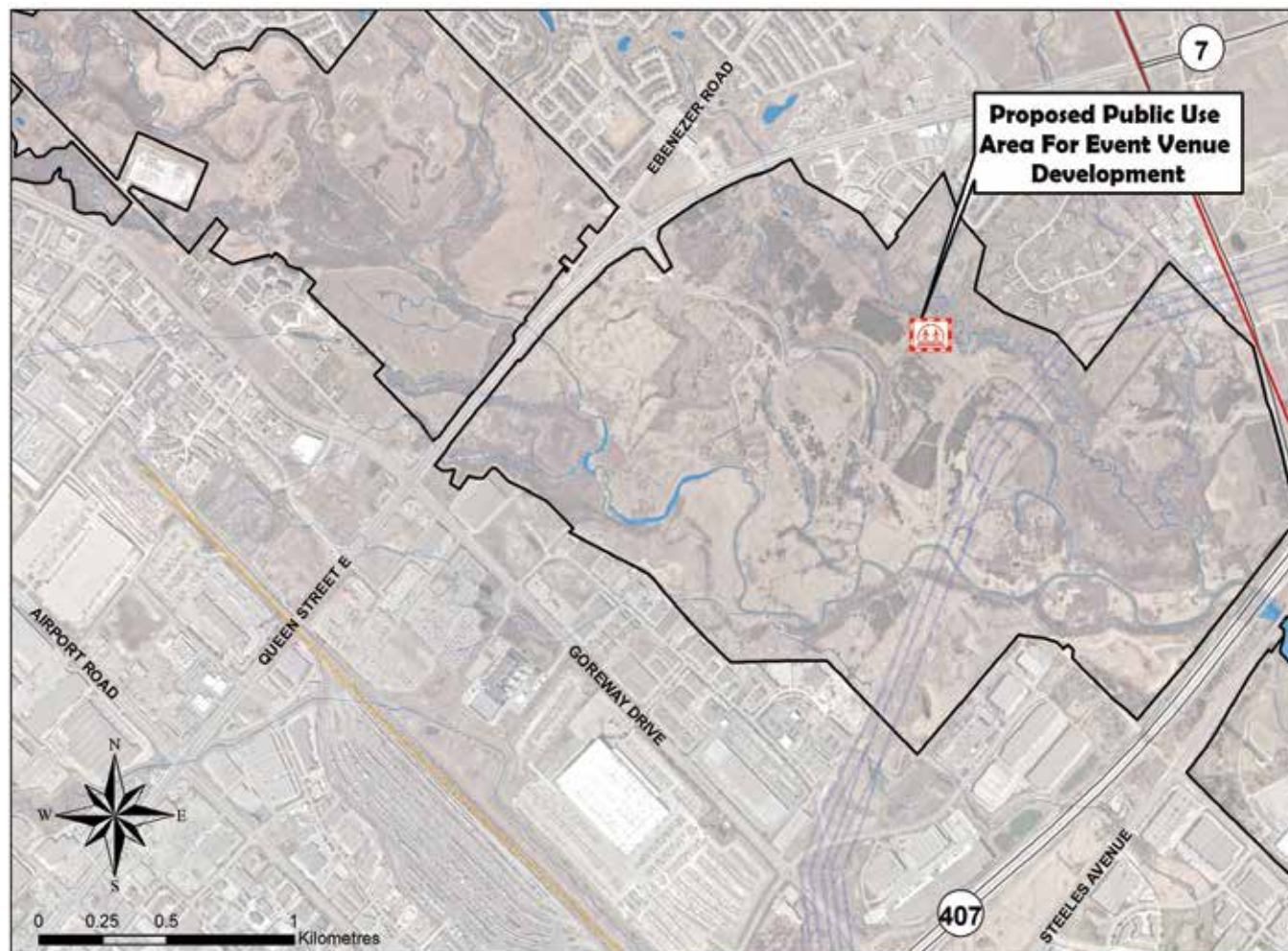
### 2.4 Recreation Engagement and Economic Development

Claireville Conservation Area has been used in a passive manner since its gates closed to the general public in 1997. However, recent reinvestments in the property have improved public use opportunities and Claireville Conservation Area officially reopened in 2010. There is still more to do to support Toronto and Region Conservation Authority’s strategic direction of rethinking greenspace to maximize its value and its objective of more people engaging with nature more often.

As such, development of a gathering event venue at Claireville Conservation Area is one which should be further explored (see suggested location in Map 2.2). An outdoor venue that could be used for large recreation events, concerts and festivals that could accommodate up to 15,000 people would allow Toronto and Region Conservation Authority to develop new partnerships and business ventures with event, music and festival organizers, and it would promote outdoor nature-based recreation and healthy lifestyles to the community and economic development of the region. In addition to serving as a large event venue, the infrastructure would enhance Claireville Conservation Area’s existing filming business by providing services frequently requested by large filming crews.

Map 2.2: Proposed event venue location, Claireville Conservation Area

CLAIRVILLE NATURAL AREA ENHANCEMENT OPPORTUNITIES, CLAIRVILLE CONSERVATION AREA



This venue would drive tourism and economic development to the City of Brampton, while ensuring that more people engage with nature more often at Toronto and Region Conservation Authority facilities through financially sustainable activities. This purpose is clearly supported by several City of Brampton strategic and guiding documents, Toronto and Region Conservation Authority's strategic plan (Leadership Strategy #3: Rethink greenspace to maximize its value) and the Claireville Conservation Area Management Plan Update (Section 3.1.3.4 Public Use), and would be further explored in a business case.

At this time, Toronto and Region Conservation Authority needs to fully evaluate the feasibility of the project in light of conditions and constraints and to critically examine the business case for such an initiative. The following will be included in this evaluation at a minimum:

- Operational and long term maintenance costs versus anticipated revenue, including cost versus value and prospect of success.
- Review of comparable venues to analyze their successes and failures within the geographic area.
- Anticipated traffic and noise studies, and associated ecological and human impacts.
- Transportation impacts, including parking requirements and public transit availability.
- Liability concerns and how they could be mitigated.
- Strategic support in Toronto and Region Conservation Authority and local and regional municipality strategies, plans, and policies.
- Municipal and public consultation.

A budget of \$50,000 plus contingency, surcharges and taxes is required to complete the feasibility study and business case (see Table 2.5). It is anticipated that this initiative should take approximately 12 to 18 months to complete. Conducting the servicing assessments included in the property and asset management section of this implementation plan are required to support the further development of this gathering venue by providing direction on servicing upgrade requirements.

Table 2.5: Gathering event venue evaluation, Claireville Conservation Area

ITEM	COST*
Feasibility studies and business case	\$50,000.00
<b>TOTAL</b>	<b>\$50,000.00</b>

\* Cost estimates do not include contingency, surcharges and taxes, and are in 2014 dollars.

The studies and business case will provide further direction regarding tasks, timing and costs associated with the development of a gathering event venue at Claireville Conservation Area. Should the project proceed, it may take several years to fully implement. This would not be initiated until funding is secured.

2.5 Inter-regional Trail Connection

Trails are an important recreation feature in Claireville Conservation Area and are well used by local residents. In addition, Claireville Conservation Area is a strategic location for trails that will connect the City of Brampton's pathway system to trails in the neighbouring cities of Toronto, Mississauga and Vaughan, and extend the western branch of the Humber River inter-regional trail. Further development of the West Humber inter-regional trail connection through Claireville Conservation Area will enhance these systems.



Creating the inter-regional trail connection at Claireville Conservation Area directly supports Toronto and Region Conservation Authority's strategy to rethink

greenspace to maximize its value. The completed trail will enable more residents to experience this oasis of natural open space and engage with nature and provide a convenient, safe and accessible trail connection for local and regional visitors to walk and cycle between the cities of Brampton, Mississauga and Toronto. A formalized trail connection will also encourage users to stay on the trail thereby protecting the environment by limiting intrusion into some of the more sensitive natural areas at Claireville Conservation Area. Way-finding and interpretive signs will help users reach their destination while highlighting many of the natural habitat features and restoration projects completed within the Claireville Conservation Area. Recreational opportunities include walking, hiking, biking, bird watching, wildlife viewing and nature appreciation. Access without driving to the Wild Water Kingdom and Claireville Ranch facilities and their attractions are ancillary benefits.

This project is directly prioritized within the Humber River Watershed Plan Implementation Guide (2008) and the Claireville Conservation Area Management Plan Update to achieve nature-based recreation goals (Section 3.3.2.4). The trail system at Claireville Conservation Area is also a feature of the City of Brampton's PathWays Master Plan (2002), wherein the property is identified as a major trail hub.



The inter-regional trail exists on internal park roads within the middle portion of Claireville Conservation Area, between Regional Road 107 and Highway 407. As such, Toronto and Region Conservation Authority has been busy pursuing connections through the northern and southern portions of the property. To the north, Toronto and Region Conservation Authority is partnering with the City of Brampton to construct a 3.8 kilometre extension of the trail system between Regional Road 107 and Goreway Drive. This project is anticipated to be completed at some point in 2016 or 2017, pending final approvals from the Ontario Ministry of Natural Resources and Forestry. To the south, the existing West Humber Trail currently ends near the northeast corner of Finch Avenue and Highway 427 within the City of Toronto. Toronto and Region Conservation Authority, the City of Toronto and Infrastructure Ontario are currently finalizing agreements to extend the trail under Highway 427 and connect to the west side of the Claireville dam. Comprising part of the PanAm Path, the trail will divert east, across the top of the Claireville dam, and north along Old Indian Line Road, ending at Albion Road. This project is to be completed by June 30, 2015. The project concept described below represents the final link in the West Humber inter-regional trail

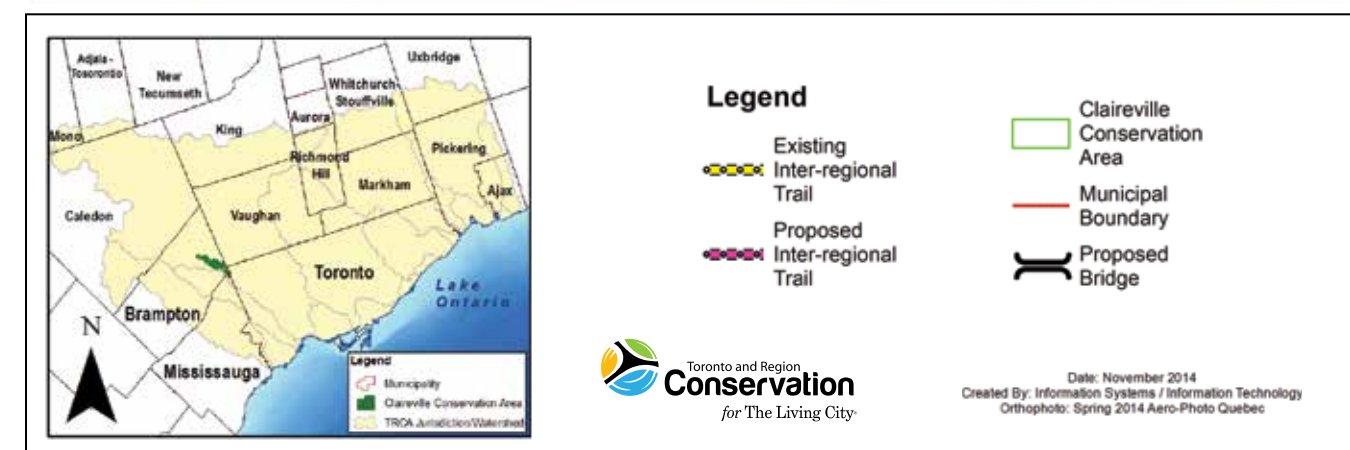
through Claireville Conservation Area, and will create 12 kilometres of continuous multi-use trails through the property once completed.

This first part of this project includes the construction of approximately 350 metres of three metre wide granular trail and a bridge structure approximately 60 metres in length, spanning the northern extent of the Claireville reservoir, immediately south of Steeles Avenue. The completed trail and bridge will provide a seamless, off-road trail connection from the terminus of the PanAm Path at Albion Road to the east, with the existing internal park road/West Humber trail on the west side of the river (see Map 2.3). The entire length will be constructed for multiple users and in a manner consistent with the Province of Ontario's accessibility standard for the design of public spaces (2014).

Preliminary cost estimates for a 60 metre corten self-weathering steel bridge with wood decking and 350 metres of three metre wide limestone screening trail are \$652,000 plus contingency, surcharges and taxes (Table 2.6). An example of this type of bridge is presented in Figure 2.1. Tangible capital assets of a trail, pedestrian bridge, and gateway feature(s) will be created as part of this project. It is also expected that this project will establish partners through complete or partial financing of the project.

Map 2.3: Inter-regional trail connection, Claireville Conservation Area

WEST HUMBER INTER-REGIONAL TRAIL, CLAIRVILLE CONSERVATION AREA



The second part of the inter-regional trail project is the rehabilitation of the Wiley concrete bowstring bridge. This bridge is located on the now unused portion of McVean Drive to the north of the intersection of Steeles and Finch Avenues. It was built in 1924 and received heritage designation status under the Ontario Heritage Act in 2013. The inter-regional trail concept that was proposed in the updated management plan for Claireville Conservation Area identified the use of this structure as part of the trail alignment. Assessments have identified that it is in need of considerable rehabilitation. Detailed construction and rehabilitation designs are required before restoration of the bridge can occur. Approximately \$440,000 plus contingency, surcharges and taxes (Table 2.6) is required to restore the Wiley bridge.



Figure 2.1: Example of a corten self-weathering steel bridge



Shpuntov, 2012

Table 2.6: Inter-regional trail connection projects budget, Claireville Conservation Area

COMPONENT	UNITS	COST*
Bridge construction, including concrete abutments and piling, procurement, fabrication and installation	60 metres	\$ 519,500.00
Trail construction, including planning, design and construction	350 metres	\$ 52,500.00
Design, procurement, approvals and administration, including engineering design, geotechnical studies, contract management and administration		\$ 80,000.00
Wiley concrete bowstring bridge rehabilitation design		\$ 40,000.00
Wiley concrete bowstring bridge restoration		\$ 400,000.00
<b>TOTAL</b>		<b>\$ 1,092,000.00</b>

\* Cost estimates do not include contingency, surcharges and taxes, and are in 2014 dollars.

It is expected that it will take three years to fully implement the trail project as described above. The first year and a half will include review of engineering feasibility and design options, completion of background studies to determine best approach, procurement of permits and approvals, development of construction drawings and securing of partner funding resources. The remaining time will be dedicated to trail and bridge construction, Wiley bridge restoration and habitat restoration initiatives. The extent of habitat restoration efforts is dependent upon securing and leveraging funds to implement the natural

area enhancement plans for Claireville Conservation Area, as described in a previous section.

**2.6 Priorities for Implementation**

Funding is not immediately available to fully implement the updated management plan and the projects detailed in this implementation plan (see Appendix A). Therefore, projects in this plan and their components have been prioritized based on anticipated funding and associated restrictions, urgency, ease of implementation, and potential for partner support and corresponding supporter recognition (see Table 2.7).

Table 2.7: Implementation priorities, Claireville Conservation Area

PRIORITY	AREA	PROJECT	ESTIMATED COST*	PROJECT LENGTH	LEAD
1	Inter-regional trail connection	West Humber inter-regional trail connection	\$652,000.00	3 years	Conservation Lands
2	Inter-regional trail connection	Wiley concrete bowstring bridge rehabilitation designs	\$40,000.00	1 year	Conservation Lands
3	Dam operation improvements	Natural gas service installation to Claireville dam and dam operator house	\$150,000.00	1 year	Property and Risk Management
4	Land and asset management	Site conditions assessments	\$50,000.00	12 to 18 months	Property and Risk Management
5	Dam operation improvements	Dam and dam operator house septic system repair and upgrade	\$30,000.00	1 year	Property and Risk Management
6	Inter-regional trail connection	Wiley concrete bowstring bridge restoration	\$400,000.00	2 years	Conservation Lands
7	Dam operation improvements	Peer review and revision of Claireville dam's operation, maintenance and surveillance manual	\$5,000.00	1 year	Flood Management Services
8	Recreation engagement and economic development	Gathering event venue feasibility studies and business case development	\$50,000.00	12 to 18 months	Conservation Parks
9	Land and asset management	Site servicing improvements	\$25,000.00	12 to 18 months	Property and Risk Management
10	Land and asset management	Site securement and protection	\$25,000.00	12 to 18 months	Conservation Lands
11	Aquatic and terrestrial ecological management and restoration	Natural area enhancements	\$16,383,400.00	As opportunities are available	Restoration Projects
<b>TOTAL</b>			<b>\$17,810,400.00</b>		

\* Cost estimates do not include contingency, surcharges and taxes, and are in 2014 dollars.



3 CONCLUSION

The projects detailed in this implementation plan support the updated Claireville Conservation Area Management Plan (2012), Toronto and Region Conservation Authority's strategic plan (2013), and other plans and strategies of Toronto and Region Conservation Authority and the local and regional municipalities. It will take many years for the projects recommended in the management plan to be fully implemented. Toronto and Region Conservation Authority is able to allocate some of its capital funds towards project implementation, but partnerships with public and private organizations will assist Toronto and Region Conservation Authority in fully implementing the recommendations of the management plan in a shorter time frame. Toronto and Region Conservation Authority will continue to cooperate with its partners and the public to achieve the vision of Claireville Conservation Area as an oasis for wildlife and people as established in the updated management plan.



APPENDIX A: Implementation Projects, Budget And Schedule

AREA	PROJECT	UNITS	COST*	PROJECT LENGTH	LEAD(S)
Aquatic and terrestrial ecological management and restoration			\$21,626,088.00		Restoration Projects
	Forest	96.7 hectares	\$5,246,600.00		
	Riparian	9.2 hectares	\$524,000.00		
	Shoreline	1136 metres	\$2,272,000.00		
	Wetland	28.4 hectares	\$2,135,800.00		
	Partial and full barriers removal	41	\$1,230,000.00		
	Erosion control	28	\$1,850,000.00		
	Access and channel issues remediation	16	\$1,450,000.00		
	Outfall restoration	22	\$1,675,000.00		
	Contingency (20%)		\$3,276,680.00		
	Corporate Surcharge (10% on all components and contingency)		\$1,966,008.00		

AREA	PROJECT	UNITS	COST*	PROJECT LENGTH	LEAD(S)
Dam operation improvements			\$244,200.00	1 year	Flood Management Services
	Installation of a natural gas service from Finch Avenue to Claireville dam and dam operator house	1	\$150,000		
	Repair and upgrade of the existing septic system (tank and field) at the Claireville dam and dam operator house	1	\$30,000		
	Peer review and revision of Claireville dam's operation, maintenance and surveillance manual	1	\$5,000		
	Contingency (20%)		\$37,000.00		
	Corporate Surcharge (10% on all components and contingency)		\$22,200.00		
Dam operation improvements			\$244,200.00	1 year	Flood Management Services
	Installation of a natural gas service from Finch Avenue to Claireville dam and dam operator house	1	\$150,000		
	Repair and upgrade of the existing septic system (tank and field) at the Claireville dam and dam operator house	1	\$30,000		
	Peer review and revision of Claireville dam's operation, maintenance and surveillance manual	1	\$5,000		
	Contingency (20%)		\$37,000.00		
	Corporate Surcharge (10% on all components and contingency)		\$22,200.00		

AREA	PROJECT	UNITS	COST*	PROJECT LENGTH	LEAD(S)
Recreation engagement and economic development			\$66,000.00	12 to 18 months	Conservation Parks
	Feasibility studies and business case		\$50,000.00		
	Contingency (20%)		\$10,000.00		
	Corporate Surcharge (10% on all components and contingency)		\$6,000.00		
Inter-regional trail connection			\$1,441,400.00	3 years	Conservation Lands
	Bridge construction, including concrete abutments and piling, procurement, fabrication and installation	60 metres	\$519,500.00		
	Trail construction, including planning, design and construction	350 metres	\$52,500.00		
	Design, procurement, approvals and administration, including engineering design, geotechnical studies, contract management and administration		\$80,000.00		
	Wiley concrete bowstring bridge rehabilitation design		\$40,000.00		
	Wiley concrete bowstring bridge restoration		\$400,000.00		
	Contingency (20%)		\$218,400.00		
	Corporate Surcharge (10% on all components and contingency)		\$131,040.00		
	<b>Total</b>	Excluding harmonized sales tax		<b>\$23,509,728.00</b>	

\* Cost estimates are in 2014 dollars

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