Etobicoke and Mimico Creeks

CreekTime

The newsletter of the Etobicoke and Mimico Creeks Watersheds

SPRING/SUMMER 2006

Building the foundation:

60 years of conservation in the Etobicoke and Mimico Creeks Watersheds

In 1946, the Etobicoke River Conservation Authority (ERCA) was founded as one of the first of three conservation authorities established in Ontario. With the release of the Etobicoke Valley Report in 1947, the authority offered state-of-the-art thinking about natural resource management in its day.

The ERCA was preaching sustainability long before it was trendy, stating in 1954, "River valley development is the wise use of all natural resources of a river valley for all the people living in the valley for all time."

And, in many regards, that thinking hasn't changed much since the ERCA's founding, through its amalgamation with the Metropolitan Toronto and Region Conservation Authority in 1957, and its work today.

The Etobicoke and Mimico creeks watersheds may have drastically changed, featuring 10 per cent urban land-use in 1947 to almost 70 per cent today, but the issues the authority has been concerned with have stayed the same — promoting a balanced and integrated pursuit of social, economic and environmental objectives, while embracing an ecosystem approach that aims for healthy rivers and shorelines, regional biodiversity and sustainable communities.

While there have been some mistakes, such as the alteration of creeks to accommodate infrastructure and the loss of wetlands, there have also been successes, like the acquisition of Heart Lake and Snelgrove as public greenspaces that boast some of the best natural habitat in the watersheds.

In 2002, ***Greening Our Watersheds: Revitalization Strategies for the Etobicoke and Mimico Creeks*** was completed and a watershed-based volunteer group formed to implement the recommendations. Since their formation, significant progress has been made towards healthier watersheds.

In 2006, as we celebrate 60 years of conservation that began with the ERCA, the Etobicoke-Mimico Watersheds Coalition looks to the future with the release of the Etobicoke and Mimico Creeks Watersheds Report Card 2006.

Turning over a new leaf: The Etobicoke and Mimico Creeks Watersheds Report Card 2006 communicates on the state of 25 indicators within the watersheds, updates the current state of the watersheds, reports on major accomplishments and identifies key priorities that are needed to meet the targets for each indicator.

Over all, the report card provides direction for protection and restoration within the watersheds so that we can realize the sustainable river valley development our predecessors envisioned not only for our generation, but for generations to come.

The Living City

The urban reality of our watersheds is brought into sharp focus by the enormous growth, both greenfield and infill, expected to occur within and around these watersheds over the next 25 years. Promoting a balanced and integrated pursuit of social, economic and environmental objectives, The Living City embraces the ecosystem concept as the foundation for the city region and strives towards achieving:

- Healthy rivers and shorelines
- Regional biodiversity
- Sustainable communities

Celebrating the father of conservation

From the Etobicoke River Conservation Authority of 1946 to The Living City.

Touted as the "father of conservation," Arthur Herbert Richardson (1890–1971) was a pioneer within the forestry and conservation movement in Ontario. During the very first year of the 1946 ***Conservation Authorities Act,*** Richardson spearheaded the establishment of the first three conservation authorities in the province on the Ausable, Etobicoke and Ganaraska rivers.

In 1947, Richardson authored the Etobicoke Valley Conservation Report, reflecting current conditions in the watershed and made recommendations for future management. By 1949, the jurisdiction of the Etobicoke River Conservation Authority (ERCA) had been enlarged to include Mimico Creek, which evolved into the Etobicoke-Mimico Conservation Authority.

However, during this time issues of flooding, soil erosion and pollution affecting Etobicoke and Mimico creeks were met with several disconnected approaches to management, reflecting the historical disciplinary divisions of forestry, resource, recreation and wildlife management.

It was not until the devastation brought by Hurricane Hazel that broader ideas of ecosystem management began to permeate the organization. By 1957, the Etobicoke-Mimico Conservation Authority, along with others such as the Don and Humber rivers, were amalgamated into what would eventually be called the Toronto and Region Conservation Authority (TRCA).

Richardson again stepped to the forefront, serving as the first chairman of TRCA, and continued to make significant contributions to the Boy Scouts and forestry movement. Upon retiring, Richardson left a legacy of countless hectares of parklands and reforested lands throughout the province.

In 2006, looking back on 60 years that began with the ERCA, the conservationist momentum that lead to the emergence of today's community-driven, ecosystem-based approach to watershed management is one that continues to gain strength and, more than ever, relies on the foresight, hard work and determination of those who recognize the value of our natural heritage.

Today, TRCA's living city approach continues to embrace the conservation values advocated by Richardson, aiming to pursue ecological integrity and social well-being throughout its jurisdiction by ensuring that watersheds protect and maintain healthy rivers and shorelines, regional biodiversity and sustainable communities.

www.trca.on.ca

TORONTO AND REGION Conservation for The Living City

Turning over a new leaf: The Etobicoke and Mimico Creeks Watersheds Report Card 2006

	Component	Indicator	Current rating	Targets (By 2025, unless otherwise indicated.)	Key future actions (Directed towards all watershed partners: government, businesses, residents.)
Natural Heritage System	**Terrestrial Natural Heritage**	Quantity	Fail	• Eleven per cent of the Etobicoke Creek and eight per cent of the Mimico Creek watershed should be natural cover	• Enhance natural cover by protecting, restoring and securing priority areas • Avoid future losses and develop compensation strategies in order to ensure future net gain
		Quality	Poor	• Increase in the quality of natural systems as measured by the proportion of "good" (L2) and "fair" (L3) total patch scores*	• Increase size and quality of existing natural areas • Mitigate negative matrix influence from urbanization
	Aquatic Systems	Fish Communities	Poor	• The Index of Biological Integrity (IBI) rating at three sites in Etobicoke Creek should be improved to "fair" from "poor"** • Availability of fish at all monitoring sites sampled in Mimico Creek	• Implement Fish Management Plan recommendations • Mitigate in-stream barriers, where possible, to facilitate fish movement upstream
		Benthic Invertebrates	Fair	• At least 40 per cent of benthic invertebrate stations should have an invertebrate community that is rated as "good"	• Develop better assessment tools to relate impacts on aquatic communities from landscape changes • Remove concrete-lined channels, where possible
		Riparian Zone	Poor	• Seventy-five per cent of the riparian zone contains natural (forest) cover***	• Develop and implement a riparian zone strategy to achieve increased riparian cover
	Water Quality	Conventional Pollutants	Poor	• Samples should meet Provincial Water Quality Objectives (PWQO) at least 75 per cent of the time	• Improve stormwater management quantity and quality controls • Improve sediment and erosion control at development sites
		Heavy Metals and Organic Contaminants	Poor	• Priority compounds (the COA Tier 1 list****) have been virtually eliminated (e.g., are detected in less than 10 per cent of samples) • Levels of seven metals of concern meet PWQO at least 75 per cent of the time • No restrictions on eating sport fish due to contaminants	• Increase community and business education to help reduce loadings of pollutants through storm sewers including promotion of ISO 14000 and 14001 environmental management standards • Develop better tools for spill prevention and encourage industries to have spills prevention plans in place
		Water Contact Recreation	Poor	• E.coli levels meet PWQO at least 95 per cent of the swimming season	• Develop a source protection plan • Aggressively enforce pet control and sewer use by-laws
	Water Quantity	Streamflow	Not rated	• Increase baseflow from current volumes • No increase in peak flow rates • No increase in the number of flood vulnerable areas and flood vulnerable roads	• Maintain groundwater infiltration rates in new developments • Proactively implement flood control measures
		Stormwater	Not rated	• Identify all lot-level source controls to reduce stormwater at the source • Complete all identified stormwater retrofits to control quality and quantity of stormwater	• Require stormwater management treatments on site whenever possible • Implement stormwater retrofit studies and Wet Weather Flow Management Master Plan recommendations • Promote naturalization and other source control measures such as downspout disconnection
Human Influences	**Urban Growth and Sustainability**	Land Use	Poor	• One hundred per cent of the Targeted Natural Heritage System is protected • Future development will be based on intensification, infill and compact urban form, and will occur in designated Rural Service Centres, to encourage the retention of existing agricultural and countryside uses to the greatest extent possible	• Ensure that natural cover is enhanced through all forms of development • Advocate for standard planning and building codes that support sustainable community design • Ensure new development and intensification follows sustainable community design principles where feasible and appropriate • Ensure that agriculture and countryside uses are retained to the greatest extent possible
		Transportation	Poor	• The modal split for watershed residents should match the 2001 split for the City of Toronto (e.g., 54 per cent of trips made by automobile drivers, 14 per cent made by auto passengers, 22 per cent by transit and eight per cent by cycling and walking) • Complete the planned 45.6 kilometres of additional bicycle paths	• Advocate for an integrated and efficient public transit system and enhanced investment in public transit and infrastructure to support cycling and accessible pedestrian modes of transportation • Create awareness about the benefits of car-pooling, public transit, cycling and walking
		Air Quality	Poor	• The air quality as measured by the Air Quality Index (AQI) should be very good (e.g., an AQI of zero to 15) for 100 per cent of the annual sampled hours	• Advocate for renewable energy technologies and investment in local conservation initiatives resulting in air quality improvement • Participate in TRCA's for The Living City programs
		Resource Use	Poor	• Reduced average per-capita water use to 156 litres per day • By 2008, 60 per cent waste diversion (provincial target) • By 2012, reduced energy consumption by six per cent	• Promote and implement water conservation programs • Advocate for Extended Producer Responsibility • Purchase energy-efficient products
	Recreation	Publicly Accessible Open Space	Good	• Increase the amount of publicly accessible open space over time	• Continue to acquire open space during development process • Manage publicly accessible open space in an environmentally responsible manner
		Trails	Good	• Complete trail network as defined in the watershed	• Implement municipal trail plans
		Golf Courses	Fair	• All golf courses have an environmental management program or certification through the Audubon Cooperative Sanctuary Program	• Encourage golf course participation in environmental management programs • Advocate for trail access through golf courses where possible
	Heritage	Human Heritage Features and Resources	Fair	• Leading-edge technologies and best management practices are used to identify and protect heritage features	• Protect and promote heritage resources
		Sense of Identity	Fair	• All watershed community events and conservation seminars incorporate a human heritage dimension and connection with the past	• Educate residents about human heritage of watersheds
Working Together	**Outreach**	Communication	Fair	• Continue to increase the reach of communication efforts in the watersheds	• Increase the reach of communication efforts including circulation of information to residents
		Awareness	Good	• Fifty per cent increase in participation in watershed events over 2006 levels	• Continue to reach out and engage community
		Education	Not rated	• Fifty per cent increase over 2006 levels in school participation in the Peel Water Story Program, Ontario Eco-schools Program and resident participation in TRCA's education programs	• Continue to develop and implement formal education programs
	Funding	Funding	Fair	• Match annual capital project funding from municipal levies with funding from corporations, foundations, governments and individuals	• Seek funding support from residents and commercial and industrial partners in the watersheds
	Stewardship	Backyard Practices/ Community Action	Fair	• Approximately 50 households take part in Healthy Yards Programs each year • One hundred per cent of schools take action or participate in watershed-wide events by 2025 • Overall increase in participation by watershed residents and businesses	• Seek youth involvement and support environmental youth groups in the watersheds • Make TRCA's Healthy Yards Program available watershed-wide and encourage residents to practice stewardship in their own backyards
		Watersheds Coalition	Good	• Carry out all of the priority actions contained in the 2006 and 2012 report cards • Continued commitment from Coalition members	• Implement key actions and priorities identified in this report card with the help of watershed partners and local residents

A call to action:

This report card is a snapshot of two severely degraded creeks. The Etobicoke and Mimico creeks are polluted and have lost a majority of their forest cover, fish and wildlife species.

Yet, despite these challenges, the Etobicoke-Mimico Watersheds Coalition has embraced the title ***Turning over a new leaf*** for the 2006 report card to express the important reality that the trend of degradation in the watersheds has begun to be reversed.

An immense amount of work has been completed since the 2002 publication of ***Greening Our Watersheds: Revitalization Strategies for the Etobicoke and Mimico Creeks*** by the Coalition, TRCA, our municipal partners, agencies, non-governmental organizations, businesses, community groups and committed individuals.

Some of this work, such as stream restoration, naturalization and stewardship activities, is "hands-on" action that has already begun to heal past environmental scars. Other work, such as the development of strategies, plans and programs, provides the framework, commitment and funding for actions that are just beginning. As yet, there are few signs of environmental improvement resulting from these activities. But this will come.

The urban nature of the watersheds, featuring 70 per cent urban land-use cover, has a direct relation to water quality. Despite this urban landscape, water quality can be improved through better stormwater management that removes the pollutants running off of our lawns and streets. Water quality in the watersheds is rated as "poor," but can be enhanced with better stormwater management in the future.

Also important to water quality is natural cover. The Etobicoke and Mimico creeks watersheds receive a failing grade in this area, as they feature only 5.47 per cent and 2.36 per cent, while the targets are 11 per cent and eight per cent by 2025 respectively. However, there have been accomplishments that are laying the foundation for future success, with increased protection, securement and restoration of natural areas.

Important in reaching these goals are building connections between local residents and their watershed. This means expanding natural recreation connections, such as plans to add over 100 kilometres of trails within the watershed, and building awareness of environmental issues through community partnerships—two areas where the Coalition has been extremely successful.

The task to restore and protect the Etobicoke and Mimico creeks watersheds is no small one. Taking unhealthy creeks and disconnected landscapes and making them healthy, vital, connected and sustainable requires vision, actions to realize those goals and consistent monitoring. ***The Etobicoke and Mimico Creeks Watersheds Report Card 2006*** offers these elements and we invite all of our watershed residents to join us in the important work of bringing the Etobicoke and Mimico creeks back to health.

To obtain a copy of the full report card, visit www.trca.on.ca or call 416-661-6600.

*Toronto and Region Conservation's Terrestrial Natural Heritage Systems Strategy ranks natural areas from L1 to L5, where L1 equals a grade of "excellent" and L5 equals a grade of "very poor."

**The Index of Biological Integrity (IBI) is a powerful indicator of the health of aquatic ecosystems. It assesses the health of fish communities using nine different measures that include the number of species found, the composition of the fish community, the presence of local indicator species and the abundance of fish. The IBI is calculated on a sliding scale from nine (poor) to 45 (very good).

***Vegetation along the banks of a river or stream, riparian cover helps to improve water quality, retain stormwater and protect against erosion. It also provides shade to keep stream temperature low and provide shelter and food for aquatic and terrestrial wildlife.

**** Canada-Ontario Agreement Tier 1 contaminants.

Watershed quiz...

test your knowledge

Q1

The communities in the Etobicoke and Mimico creeks watersheds actively participate in a range of environmental stewardship initiatives. Since 2002, the residents and partners of these watersheds have planted:

a) Over 7,000 trees and shrubs
b) Over 11,000 trees and shrubs
c) Over 21,000 trees and shrubs

Q2

Benthic invertebrates are organisms without backbones that live on the bottom of streams or lakes. They include worms, leeches, molluscs, snails, crayfish and the larvae of many insects. Benthic invertebrates are:

a) A vital part of the aquatic food web
b) Useful indicators of water quality
c) Useful indicators of aquatic habitat conditions
d) All of the above

Q3

With the amount of urban and industrial development occurring within the Etobicoke and Mimico creeks watersheds, impacts to water quality and the health of the ecosystem through contamination are a high priority, and must be closely monitored. Between 1988 and 2000, how many spills were recorded in the Etobicoke and Mimico creeks watersheds?

a) 453
b) 127
c) 27
d) 1,293

Q4

According to 2001 data, what percentage of trips made by residents of wards in the Etobicoke and Mimico creeks watersheds were made: By automobile? Using local transit? On foot or bicycle?

a) 84, eight, five
b) 77, nine, two
c) 99, three, less than one

1. Answer C. See report card, Terrestrial Natural Heritage, Quantity, Key Accomplishments.

2. Answer D. See report card, Aquatic Communities, Benthic Invertebrates. Benthic invertebrates are organisms without backbones that live on the bottom of streams or lakes. They include worms, leeches, molluscs, snails, crayfish and the larvae of many insects. These organisms form a vital part of the aquatic food web. They are also very useful indicators of water quality and aquatic habitat conditions because they are sensitive to changes in their environment, are generally sedentary and are relatively easy and inexpensive to collect. Despite this, it is challenging to interpret benthic invertebrate data, as there are no universal standards for correlating their presence to ecosystem health.

3. Answer A. See report card, Water Quality, Heavy Metals and Organic Contaminants, Threats to Achieving Targets. Four hundred and fifty-three spills were recorded in the watershed between 1988 and 2000, according to data from the Ontario Spills Action Centre. Forty-two per cent of these spills involved discharges to water.

4. Answer A. See report card, Urban Growth and Sustainability, Transportation. In the most recent data (from 2001), 84 per cent of trips made by residents of wards in the Etobicoke and Mimico creeks watersheds were made by automobile, eight per cent of trips were made using local transit and five per cent were made on foot or bicycle. The percentage of residents using alternate forms of transportation varies throughout the watersheds, with wards in the City of Toronto and Mississauga generally having higher transit use than in Brampton and Caledon. The lack of transit use in Caledon reflects the absence of mass transit in this more rural area.

Working together

Here are a number of the successes realized by the Etobicoke-Mimico Watersheds Coalition:

- **Securing commitment and funding to construct a pedestrian bridge between Toronto and Mississauga.**
- **Launching the Malton Community Action Area Stewardship Project in partnership with Mississauga, Mississauga Airport Rotary Club and the Malton Residents Association.**
- **Initiating the South Mimico Green Neighbourhoods Project in partnership with the City of Toronto and Friends of Mimico Creek.**
- **Initiating a Toronto Remedial Action Spills Management initiative.**
- **Contributing to the Peel Children's Water Festival at Heart Lake Conservation Area.**
- **Collecting over five tonnes of garbage from ravines throughout the watershed.**
- **Implementing various restoration projects to realize over 900 metres of riparian zones.**
- **Rediscovering a nationally rare wildflower (twinleaf) in the watershed.**
- **Initiating several large-scale restoration projects.**
- **Developing the Etobicoke and Mimico Creeks Watersheds Report Card 2006.**

These are just some of the projects the Coalition has executed. Everyone within the watersheds is a potential steward and has a role to play in protecting, restoring and enhancing the natural environment. If you are interested in volunteering, contact Chris Rickett at 416-661-6600, ext. 5316.

Events

Wonders of Wetlands
August 20, 2006 1 p.m. to 3 p.m.
Wildwood Park, Malton
Learn about wetland plants and animals, and how wetlands contribute to the health of urban areas at this interactive hike and seminar, with games and activities in Wildwood Park's wetlands. For more information, call Marnie Branfireun at 905-615-4640, ext. 2513, or email marnie.branfireun@mississauga.ca

Malton Community Festival
September 16 and 17, 2006
Malton Arena and Wildwood Park
Learn how to save water in your garden, build a nesting box or feeder to attract birds to your yard, learn about the wildlife of Malton, have fun planting native plants and help us clean up Mimico Creek! For more information, call Marnie Branfireun at 905-615-4640, ext. 2513, or email marnie.branfireun@mississauga.ca

Snelgrove Community Event
(date to be announced)
Contact Dushan Jojkic at 416-661-6600, ext. 5667.

Valleywood Community Planting
(date to be announced)
Contact Chris Rickett at 416-661-6600, ext. 5316.

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