

Facts and Figures

Municipalities	Toronto, Peel, Brampton, Mississauga
Tributaries	Mimico Creek
Length of Creek (km)	34
Mean Stream Flow (mouth)	0.8 m³/sec
Area (km²)	77
Population (2011)	155,800
Land Use	Urban – 96%, Urbanizing – 4%
Physiographic Regions	Iroquois Plain, Peel Plain, South Slope
Natural Cover	11% of the watershed has Natural Cover: Forest – 2%, Meadow – 8%, Successional – 1%, Wetland – 0%
Native Plant & Animal Species	Plants – 235, Fish – 16, Birds – 50, Amphibians – 3, Mammals – 12, Reptiles – 3. Of these, 56 are Species of Regional Conservation Concern.



What We Are Doing

- From 2008 to 2012, TRCA, its volunteers and partners planted approximately 46,000 trees and shrubs in the Mimico Creek watershed. Healthy forests provide habitat for wildlife, help cool urban areas, retain water and reduce run-off, and capture CO₂ from the air to minimize the impacts of climate change.
- Municipalities are working with work crews and contractors to reduce the amount of salt applied on parking lots and exploring alternatives to traditional road salts to help improve water quality. Melting snow carries road salt and other contaminants into storm sewers and straight into Mimico Creek, and eventually into Lake Ontario.
- TRCA is working with the Region of Peel, the City of Brampton and other partners to remove and redesign sections of the concrete channelized areas along the Upper Mimico. This will help address concerns of flooding and erosion, as well as improve the overall water quality and habitat conditions in the Mimico Creek watershed.
- TRCA in partnership with Greater Toronto Airports Authority (GTAA) and local businesses through Partners in Project Green is developing North America's largest eco-business zone within the Etobicoke and Mimico Creeks watersheds. The program aims to reduce the water footprint by investing in water efficient fixtures, recycling wastewater, harvesting rainwater for landscape irrigation and cooling operations, and installing permeable parking areas on the industrial lands surrounding Toronto Pearson International Airport.
- Urban forest studies have been completed for the cities of Brampton, Mississauga and Toronto; these studies have been completed through the collaborative efforts of TRCA, regional and local municipalities and neighbouring Conservation Authorities. The Region of Peel, together with Conservation Authorities and area municipalities, has developed an Urban Forest Strategy, and the City of Toronto has developed a Strategic Urban Forest Management Plan. Collectively these documents will provide strategic direction for sustaining and expanding the urban forest.
- The Region of Peel is working closely with TRCA to develop a web-based tool to track and manage hazardous spills in the region. Spills of chemicals, petroleum products, sewage and hazardous wastes pose a serious threat to water quality.

What You Can Do

- **Divert** your downspouts away from paved areas and install a rain barrel to capture and reuse the rainwater that falls on your roof. This reduces run-off to sewers, prevents flooding and saves money on your water bill.
- **Reduce** or eliminate the use of salt, pesticides and fertilizers, which contaminate rivers, ponds and groundwater supplies.
- **Volunteer** for community tree plantings, litter pick-ups or other stewardship events. Register for a volunteer opportunity at: www.trcastewardshipevents.ca
- **Become a Watershed Champion** to protect, regenerate and celebrate the Mimico Creek watershed. Visit: www.trca.on.ca/watershed-champion to get involved.
- **Call** the Ministry of the Environment's 24-hour hotline (1-800-268-6060) to report spills so that they can be managed quickly and properly.

Donate to The Living City Foundation to support programs and initiatives in the Mimico Creek watershed at www.thelivingcity.org

visit www.trca.on.ca/emcreeks and subscribe to the *CreekTime Newsletter*

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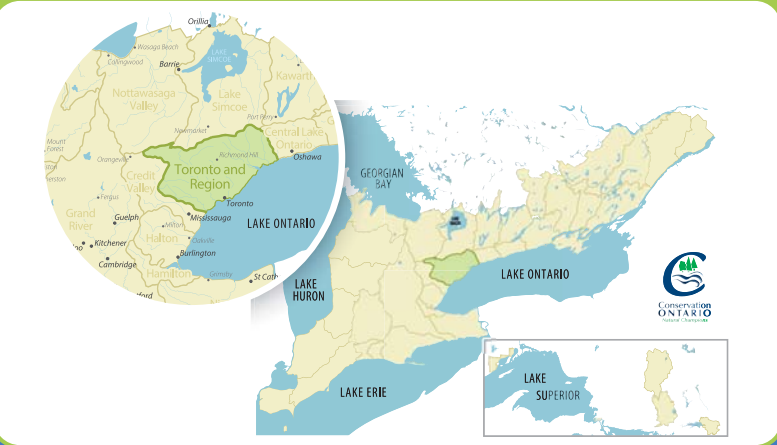
Mimico Creek Watershed

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Mimico Creek Watershed Report Card 2013



Where We Are



We are one of 36 Conservation Authorities across Ontario under the umbrella organization of Conservation Ontario.

What Does this Report Card Measure?

Surface Water Quality

Forest Conditions

Groundwater Quality

Stormwater Management

Why Measure?

Measuring helps us better understand our watersheds. It helps us to focus our efforts where they are needed most and to track the progress made. It also helps us to identify ecologically important areas that require protection or enhancement.

What is a Watershed?

A watershed is the area of land that catches rain and snow, which drains or seeps into a marsh, creek, river, lake or groundwater. Watersheds are the collectors, filters, conveyers and storage compartments of our fresh water supply.

Grading	
A	Excellent
B	Good
C	Fair
D	Poor
F	Very Poor

The standards used in this Report Card were developed by Conservation Authorities to ensure consistent reporting across the Province of Ontario. They are intended to provide watershed residents with the information needed to protect, enhance and improve the precious natural resources that surround us.

Toronto and Region Conservation (TRCA) has prepared this Watershed Report Card on the state of forests, surface water, groundwater and stormwater conditions.

Member of

Conservation ONTARIO
Natural Champions

Toronto and Region Conservation
for The Living City

About the Indicators

This Report Card provides a snapshot of some environmental conditions in the Mimico Creek watershed.

Monitoring, measuring and reporting helps us better understand the watershed, the progress we've made in protecting it and the threats to its future health. Tracking the environmental indicators used in this Report Card provides watershed residents, and the general public with the information needed to protect, restore and improve the precious natural resources within our watersheds. Where possible, an arrow is included alongside grades to show whether conditions are improving, getting worse, or stable.

What Does this Report Card Measure?

Surface Water Quality

Total Phosphorous – High levels can trigger blooms of algae that choke waterways with plant life and deplete oxygen levels in watercourses.

E. coli Bacteria – Indicate the presence of untreated human or animal waste.

Benthic Macroinvertebrates (BMI) – Bottom-dwelling stream insect larvae, snails, crayfish and clams are sensitive to many pollutants. The presence or absence of certain invertebrate species reflects the water quality conditions.

Forest Conditions

% Forest Cover – Woodlands absorb run-off, filter out pollutants and increase biodiversity. They also help reduce the impacts of climate change.

% Forest Interior – Large blocks of forest cover provide homes for many sensitive species of birds and other animals.

% Riparian Zone Forested – Vegetation along watercourses keeps the water cool, prevents erosion and provides homes for many species.

Groundwater Quality

Nitrate and Nitrite – These contaminants come from agricultural manure, fertilizers and leaky septic systems, and may indicate a possible health threat.

Chloride – High chloride levels indicate road salt may be reaching groundwater.

Stormwater Management

% of Developed Area with Stormwater Controls – Systems that manage the quantity and quality of stormwater run-off generated by our communities to protect watercourses. Stormwater management consists of practices that slow down, hold and reuse water.

Grading	
A	Excellent
B	Good
C	Fair
D	Poor
F	Very Poor



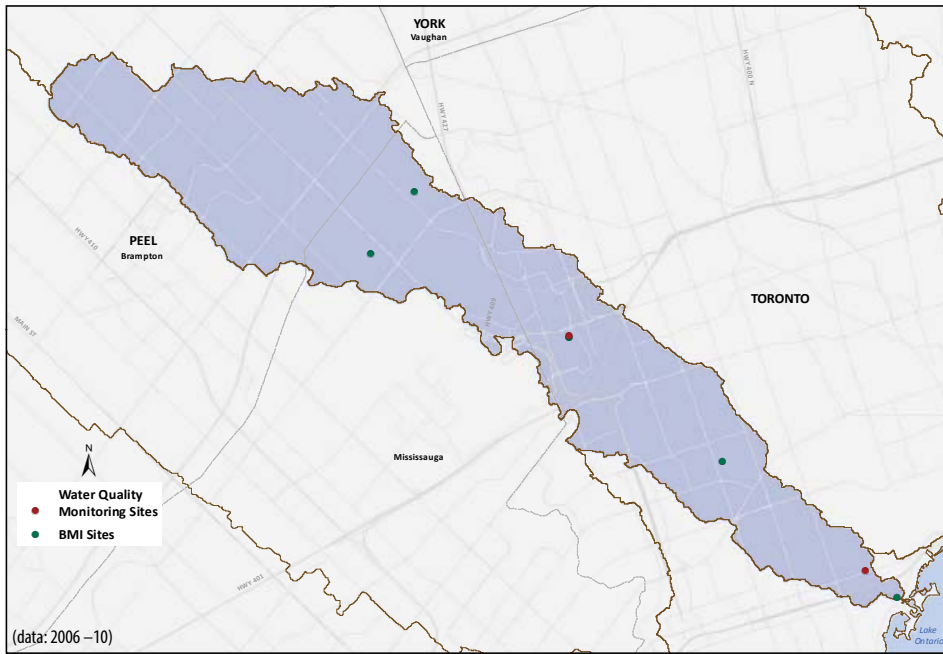
Surface Water Quality

Indicators

Total Phosphorous

E. coli Bacteria

Benthic Macroinvertebrates (BMI)



The Mimico receives an overall water quality grade of “F,” based on results from seven monitoring sites. The “Very Poor” conditions are because 96% of the watershed is urbanized.

The absence of stormwater management practices in older urban areas, the impermeable pavement covering much of the watershed and the lack of vegetation along channelized streambanks all contribute to water quality problems. These conditions limit the amount of water that can be retained and absorbed during storms, resulting in heavy run-off and frequent flash flooding. It also carries sediments, animal waste and contaminants into the watercourse. BMI and E. coli conditions are “Very Poor” in the watershed, while phosphorous is “Poor.” Significant action is needed to improve stormwater management and reduce the contaminants carried into the watercourse by run-off from local industrial, commercial and residential areas.



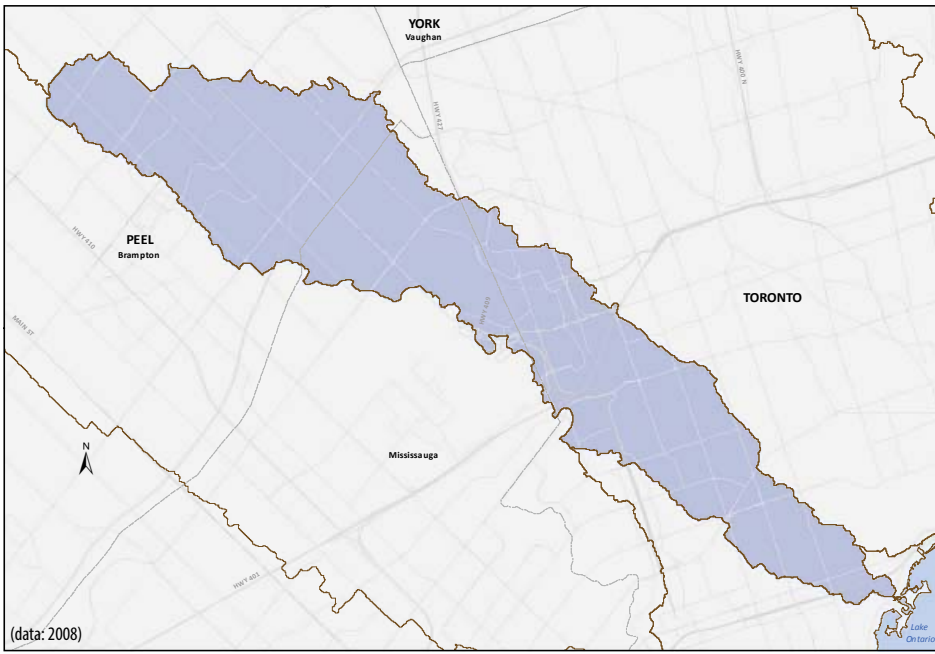
Forest Conditions

Indicators

% Forest Cover

% Forest Interior

% Riparian Zone Forested



Forest conditions in the Mimico Creek watershed are considered to be “Very Poor,” earning an overall grade of “F.” Much of the original forest cover was lost due to farming, with most of the remainder to expanding urban development. Today, less than 2% of the watershed is forested and there are no large areas of interior forest left.

The vast majority of the remaining natural cover is found within river valleys or stream corridors. Due to the limited forest cover, the wildlife community is dominated by “habitat generalist species,” such as the Baltimore oriole and the chipping sparrow, which are able to adapt to urban conditions. Significant action is needed to protect the existing forest cover, restore and expand forest areas, and achieve the targets set out in TRCA's Terrestrial Natural Heritage Systems Strategy.



Groundwater Quality

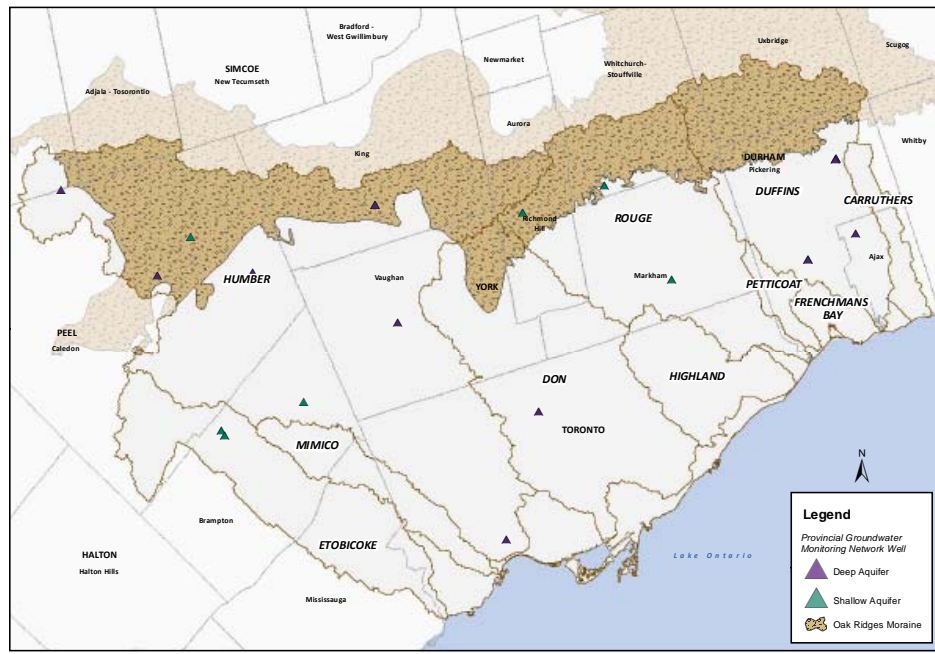
Indicators

Nitrate and Nitrite

Chloride

Groundwater quality not graded in the Mimico due to insufficient data.

NO GRADE



Overall, groundwater quality in TRCA's watersheds is “Good” with the best water quality found in the intermediate aquifer on the Oak Ridges Moraine.

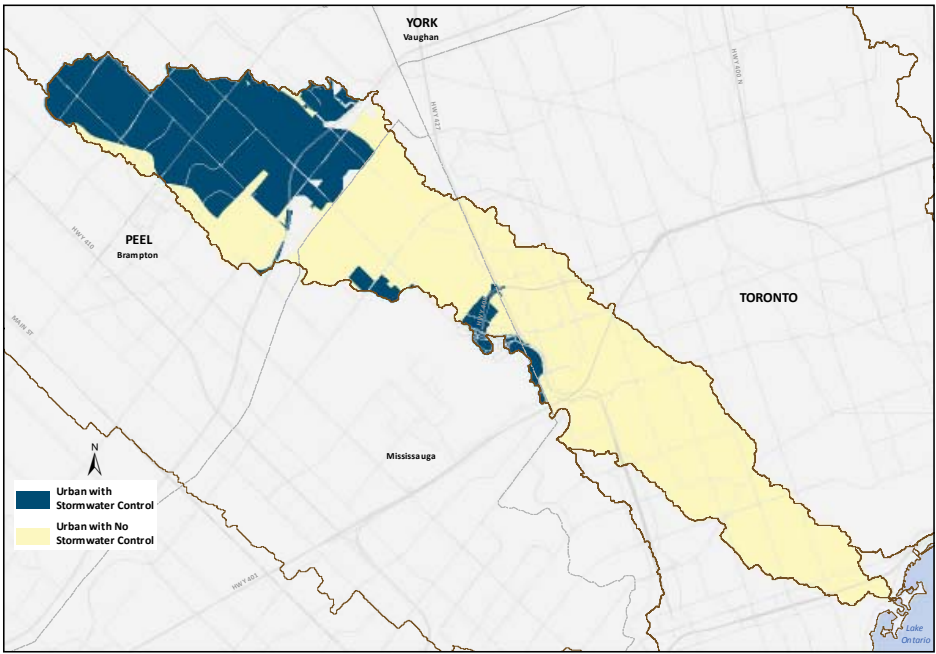
The majority of the wells yield very good results for nitrates and nitrites, indicating little or no contamination from agricultural manure, fertilizers or leaky septic systems. However, several wells show chloride levels above the Canadian drinking water standard in urbanized portions of the watersheds, where road salt may be a factor or in deeper aquifers over shale bedrock that have naturally elevated chloride levels. There are 21 groundwater monitoring wells in the current monitoring network, concentrated in northern sections of TRCA's jurisdiction where wells still provide municipal drinking water. There is no data for the Mimico, Highland, Carruthers and Petticoat watersheds, and limited data for the other watersheds. Over time, TRCA intends to expand the network through partnerships with the Regional municipalities of Peel, York and Durham.



Stormwater Management

Indicator

% of Developed Area with Stormwater Controls- Quality and Quantity (i.e., stormwater management pond)



The Mimico Creek watershed receives an overall grade of “F” or “Very Poor” for stormwater management. As of 2013, only 31% of the urbanized area of the watershed has stormwater management controls.

The City of Brampton has the highest level of controls within the watershed. Additional low impact development controls — such as rain gardens green roofs and permeable parking lots that allow stormwater to seep into the ground would further reduce run-off and stabilize stream flow. The continued construction of stormwater management ponds and effective end-of-pipe controls, such as wetlands and storage tanks are also vital in restoring the health of the creek.

