Facts and Figures

Municipalities	Toronto, York, Markham, Richmond Hill, Vaughan
Tributaries	West Don River, East Don River, Main Don River, German Mills Creek, Taylor/Massey Creek, Wilket Creek, Burke Brook
Length of Major Tributaries (km)	Main Don – 9, West Don – 43, East Don – 40
Mean Stream Flow (mouth)	4.0 m³/sec
Area (km²)	358
Population (2011)	1,211,350
Land Use	Rural – 3%, Urbanizing – 1%, Urban – 96%
Physiographic Regions	Iroquois Plain, Oak Ridges Moraine, Peel Plain, South Slope
Natural Cover	14% of the watershed has Natural Cover: Forest – 8%, Meadow – 6%, Successional – 1%, and Wetland – 0%
Native Plant & Animal Species	Plants – 515, Fish – 25, Birds – 81, Amphibians – 8, Mammals – 16, Reptiles – 5. Of these, 213 are considered Species of Regional Conservation Concern.

What We Are Doing

- From 2007 to 2012, TRCA, its volunteers and partners have planted more than 112,000 trees, shrubs and aquatic plants in the watershed, and developed three wetlands in the East Don Parklands area. Healthy forests provide habitat for wildlife, help cool urban areas, retain water and reduce run-off, and capture CO_2 from the air to minimize impacts of climate change.

- TRCA is working with the Region of York, City of Markham, community groups, businesses and local residents to green the Bayview Glen neighbourhood of Markham. As part of the Sustainable Neighbourhood Retrofit Action Plan (SNAP), the community is planting trees, conserving energy and water, and diverting rainfall from storm sewers.

- Waterfront Toronto and the City of Toronto are working together to restore the mouth of the Don to a healthier and more natural condition. The City and TRCA are naturalizing a number of tributaries. Channel modifications have taken place in Mud Creek to prevent erosion, while a long-term rehabilitation plan for Wilket Creek is being developed and implemented to enhance its ecological integrity.

- The City of Vaughan, Region of York and TRCA have developed the Baker's Woods Forest Management Plan to protect and preserve the 31 ha Baker's Woods, a provincially significant area of natural scientific interest. Containing over 850 sugar maple trees, many over 150 years old, Baker's Woods will remain a centre for environmental education and conservation.

- Urban forest studies have been completed for the cities of Markham, Toronto and Vaughan, and the Town of Richmond Hill; these studies have been completed through the collaborative efforts of TRCA, regional and local municipalities and neighbouring Conservation Authorities. The City of Toronto has also developed a Strategic Urban Forest Management Plan. Collectively these documents will provide strategic direction for sustaining and expanding the urban forest.

- Waterfront Toronto developed Don River Park, a 7.3 ha greenspace built atop the flood protection landform that was constructed just east of Bayview Avenue on the banks of the Lower Don. Once complete, the park will transform the former industrial site into a naturalized area for recreation and conservation.

- The City of Toronto constructed a 3.2 ha stormwater management pond in Earl Bales Park in the West Don. One of the largest facilities of its kind in Canada, the pond collects and treats run-off from a 550 ha drainage area—water is reused to help irrigate the Don Valley Golf Course and assist in snow making at the Earl Bales Park ski hill.

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**

- **Experience Paddle the Don.** Canoe through the heart of Canada's largest urban region from Ernest Thompson Seton Park to the mouth at the Keating Channel. **www.paddlethedon.ca**

> Donate to The Living City Foundation to support programs and initiatives in the Don watershed at
> ## www.thelivingcity.org

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theDon

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Where We Are

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

Don River Watershed
Report Card 2013

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.
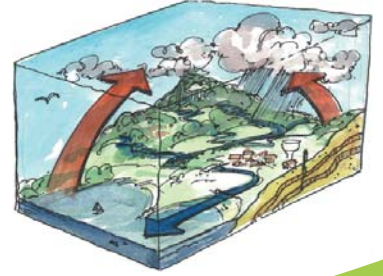
Grading

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

This Report Card provides a snapshot of some environmental conditions in the Don River 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)

F

(data: 2006 –10)

Legend: Water Quality Monitoring Sites · BMI Sites · Insufficient Data
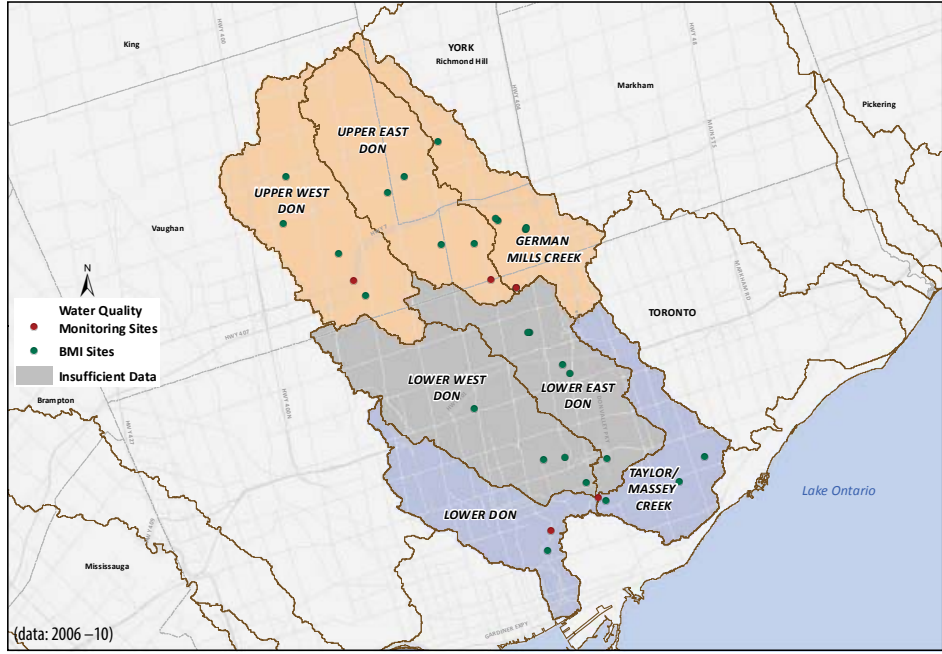
In general, water quality in the Don is considered to be "Very Poor," earning it an "F" grade. The main reason is that 96% of the watershed is urbanized, largely built up and paved over.

The majority of the urban neighbourhoods have little or no stormwater management controls, therefore, rainwater and melting snow, together with the contaminants they carry, runs off directly into storm sewers and the watercourse. Although water quality is very poor, it isn't getting worse. BMI data shows that water quality has not changed substantially since 2001, while phosphorus concentrations measured at the mouth of the Don have declined significantly over the last 30 years. Monitoring stations in the Lower Don, Taylor/Massey Creek, and the Upper East Don have higher than average *E. coli* concentrations. Phosphorus concentrations were particularly high near Pottery Road in the Lower Don, downstream of the North Toronto Wastewater Treatment Plant that may contribute to poor water quality.
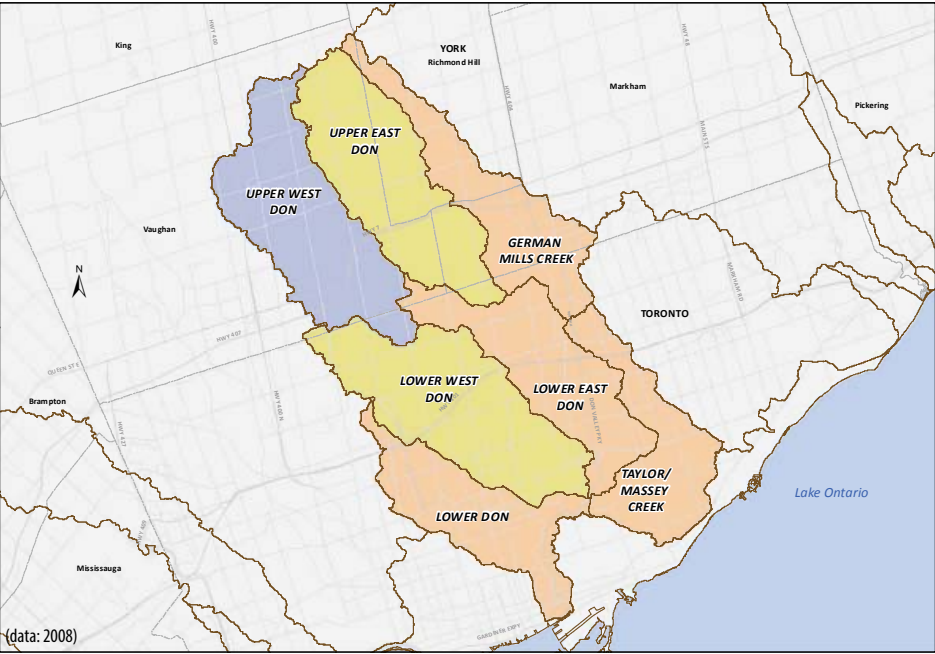
Forest Conditions

Indicators
% Forest Cover
% Forest Interior
% Riparian Zone Forested

D

(data: 2008)

The condition of the remaining forests in the Don watershed is considered to be poor and has been given a "D" grade. The Upper East Don subwatershed has the highest total forest, interior forest and riparian forest cover in the watershed.

Although only 8% of the watershed is forested, 43% percent of the existing streambank (riparian) cover consists of forests. This ranks among the highest percentages of riparian forest in TRCA's jurisdiction, especially in the Lower West Don which receives an "A" or "Excellent" grade. Forested streambanks provide habitat for wildlife, shade streams, stabilize the bank, reduce erosion and help to slow run-off. Interior forest conditions are "Very Poor" across the watershed (less than 1%), receiving an overall "F" grade. As one of the largest urban watersheds in TRCA's jurisdiction, the remaining forests consist mainly of large, mature trees.
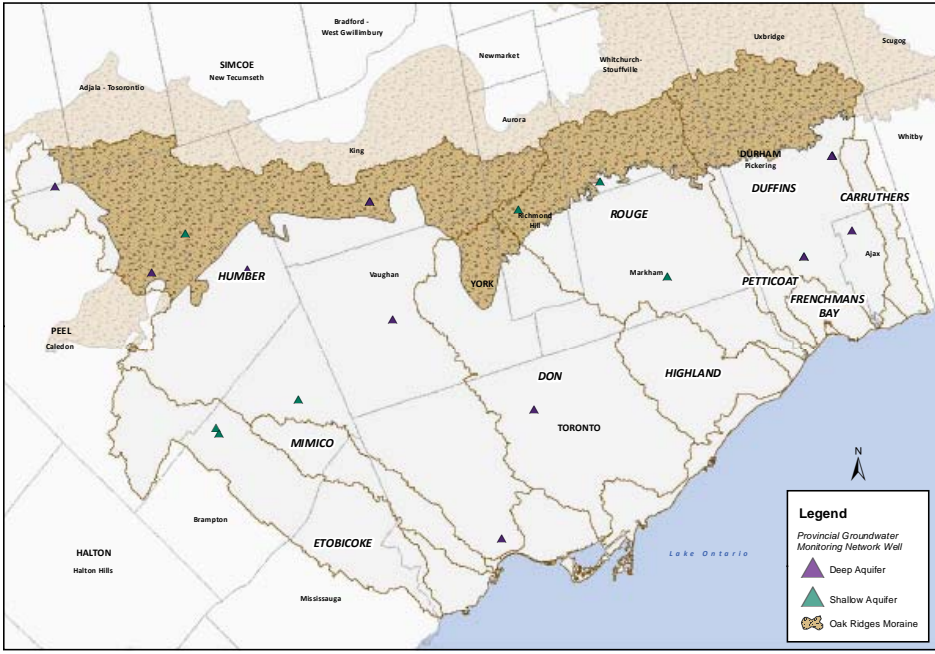
Groundwater Quality

Indicators
Nitrate and Nitrite
Chloride
Groundwater quality in the Don is not graded 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)*

F

Legend: Urban with Stormwater Control · Urban with No Stormwater Control
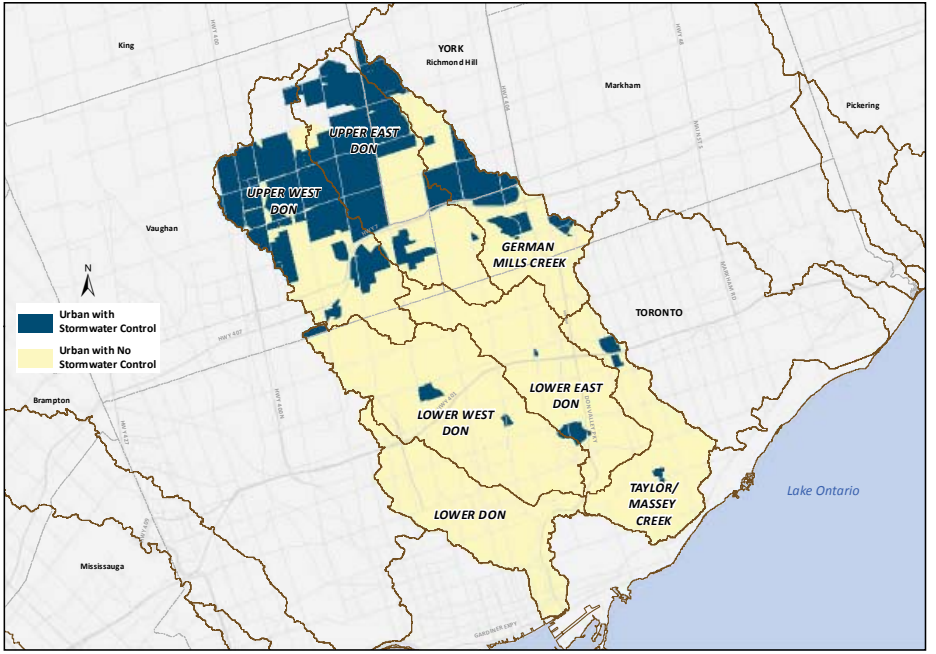
As of 2013, only 23% of the watershed has stormwater quality and quantity controls in place. As a result, the Don gets a "Very Poor" grade of "F" with regards to stormwater management.

The City of Vaughan, within the Upper West Don and Upper East Don subwatersheds has the highest level of stormwater controls in the watershed. The City of Toronto within the Lower Don exhibits the lowest level of controls. The level of stormwater control in place is largely a function of when an area was developed and reflects the management policies of that time. With much of the stormwater discharged directly into the Don, it is highly susceptible to flooding, stream erosion and water pollution. In order to restore the health of the Don, the focus should be on implementing recommendations from the City of Toronto's Don River and Central Waterfront project and retrofitting older areas with low impact development controls — such as rain gardens, green roofs and permeable parking lots that allow stormwater to seep into the ground be widely adopted in order to maintain a more natural water balance.