

WHAT ARE THE WATERSHED'S KEY ISSUES?

Increased Urbanization

- Urbanization is the cause of a unique set of issues for humans, plants, and animals. Increased urbanization and its consequences (example: more roads, cars, pollution) are and will continue to impact the natural environment.
- In particular, increased urbanization around Rouge National Urban Park is expected to have negative impacts on the protected habitats and species within the park.

Stormwater Runoff

- Water from rain or snow runs off hard surfaces like pavement or farm fields into nearby streams. Stormwater runoff is increasing due to expanding urbanization.
- The high water flows associated with stormwater result in streambank erosion and increased flooding during storm events.
- Stormwater is also associated with poor water quality because it carries sediments and contaminants such as road salt into the stream.
- Stormwater runoff entering a stream is often warmer than the stream itself. Warm water can impact fish; particularly fish that prefer cool or cold water.

Habitat Protection for Redside Dace

- The Redside Dace is a small, colourful fish that lives in the Rouge River watershed. It is listed as an endangered species by both the federal and provincial governments.
- The habitat of the Redside Dace is critical to its survival. Changes to its habitat such as changes in water quality and quantity, siltation, and the clearing of streamside vegetation are threatening the survival of this species.

HOW CAN WE ENHANCE THE WATERSHED?

What can you do?

- **Plant** native trees and shrubs on your property.
- **Reduce** or eliminate the use of salt, pesticides, and fertilizers which can contaminate water.
- **Volunteer** for community tree plantings, litter pick-ups, or other stewardship events: trca.ca/get-involved

What local actions have been taken?

- In cooperation with partners such as Parks Canada, ecological restoration projects such as tree planting and stream bank improvements have been completed.
- TRCA works with community groups such as Carolinian Canada to promote and protect rare habitats.

What local actions are planned?

- TRCA will continue to work with Parks Canada to complete various ecological restoration projects in Rouge National Urban Park, including Bob Hunter Memorial Park.
- TRCA will also continue to work with local community groups to improve the natural environment through projects such as tree and wildflower planting, wetland creation, and wildlife habitat conservation.



trca.ca/rouge

 TorontoConservation

 @TRCA_News

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To learn about The Living City Foundation: thelivingcity.org



This Watershed Report Card is available online at reportcard.trca.ca

Rouge River WATERSHED Report Card 2018



Toronto and Region Conservation has prepared this report card as a summary of the state of our forest and water resources.



WHERE ARE WE?



What is a watershed?

A watershed is an area of land, drained by a creek or stream into a river, which drains into a body of water such as a lake. Everything in a watershed is connected. Our actions upstream affect conditions downstream.

GRADING

A Excellent

B Good

C Fair

D Poor

F Very Poor

Insufficient Data

What is a watershed report card?

Ontario's Conservation Authorities report on watershed conditions every five years. The watershed report cards use Conservation Ontario guidelines and standards developed by Conservation Authorities and their partners.

Why measure?

Measuring helps us better understand our watershed. We can target our work where it is needed and track progress. We measured:



Groundwater Quality



Surface Water Quality



Forest Conditions



Land Cover

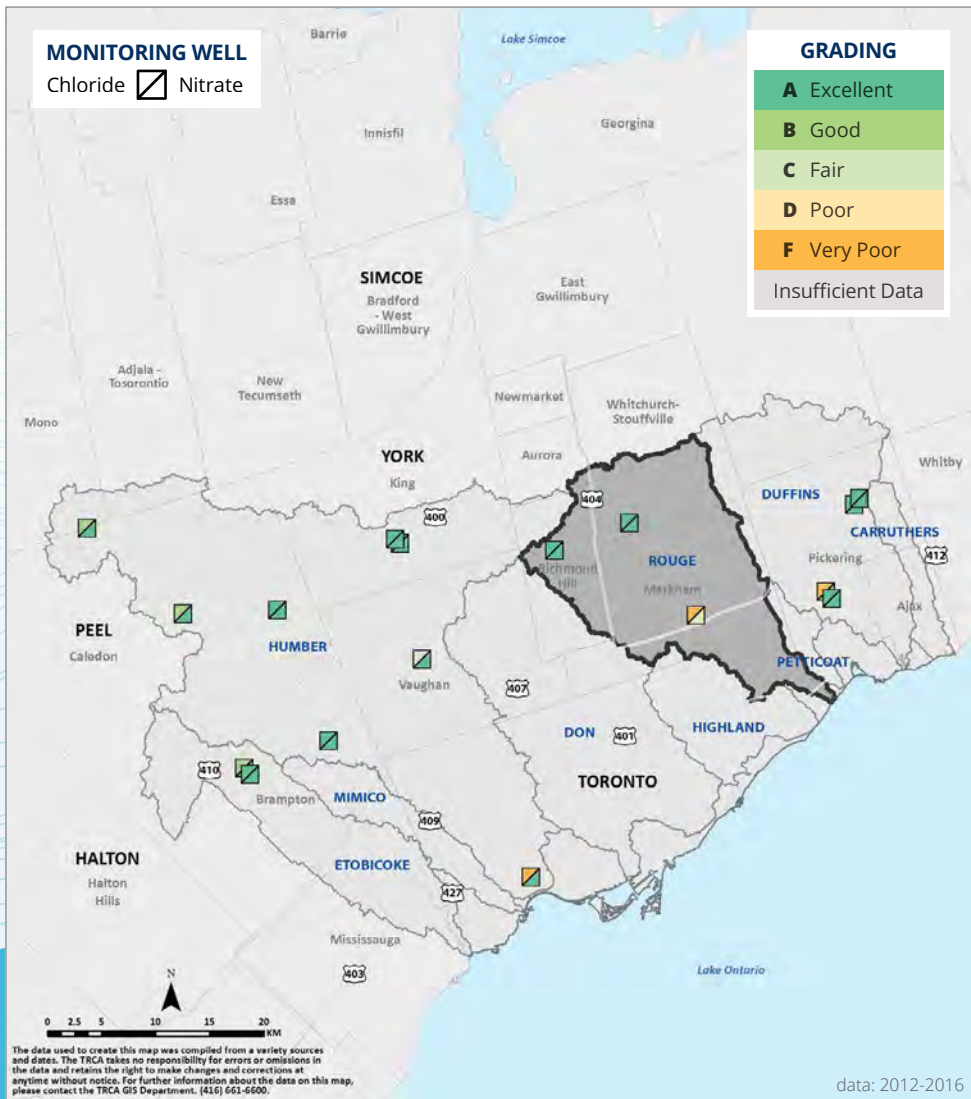


GROUNDWATER QUALITY

Fertilizers (nitrogen) and road salt (chloride) are common sources of contamination in groundwater. Concentrations of nitrate and chloride were measured at 17 monitoring wells across the TRCA jurisdiction. Grades were calculated for each well but not for each watershed. Learn more about groundwater at trca.ca/source-water-protection

What did we find?

- Generally, most wells across the jurisdiction received an 'A' grade for nitrate. One well in the urban portion of the Rouge River watershed received a 'C' grade for nitrate.
- About 60% of the monitoring wells in the TRCA jurisdiction received an 'A' grade for chloride. One well in the Rouge River watershed received an 'F' grade for chloride concentrations.



Monitoring wells are part of the Ontario Ministry of the Environment and Climate Change's Provincial Groundwater Monitoring Network (PGMN).

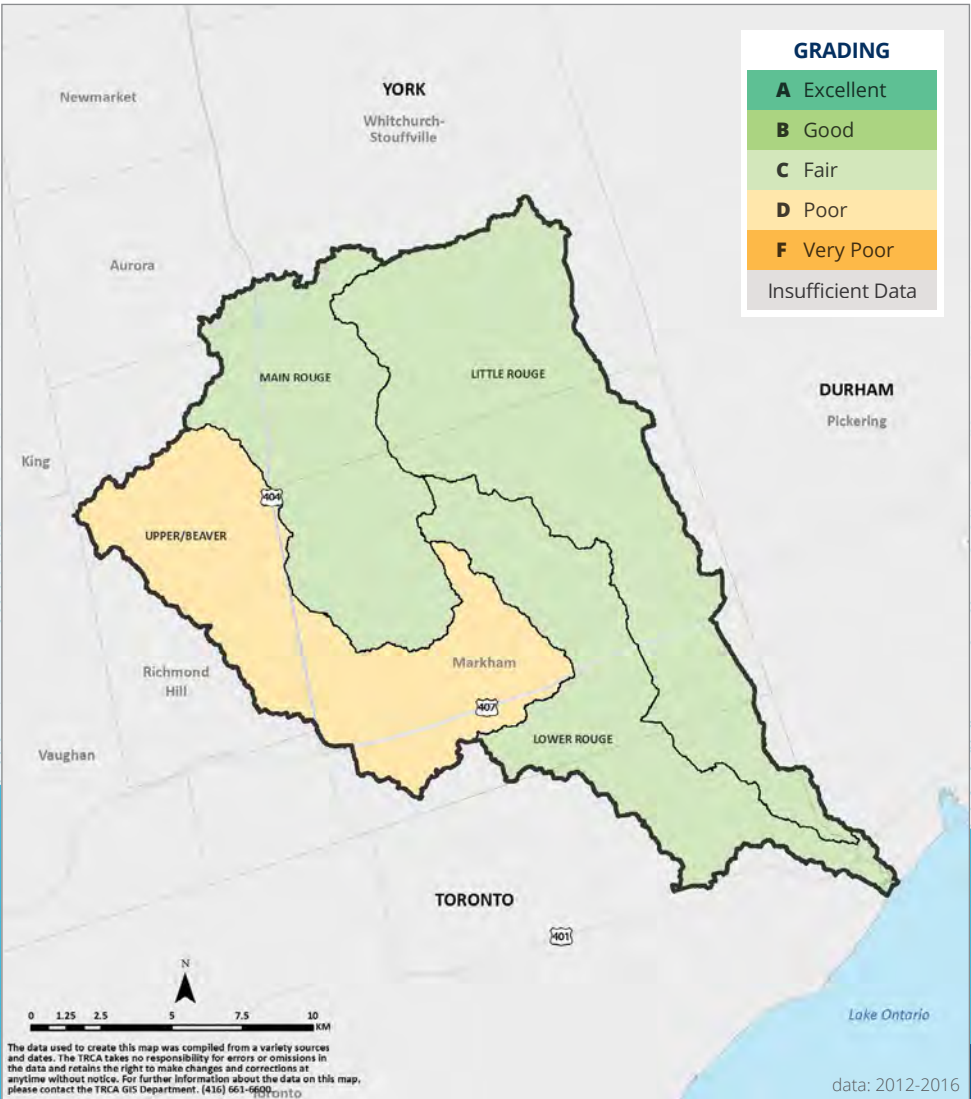


SURFACE WATER QUALITY

Concentrations of phosphorus and Escherichia coli (E. coli) bacteria were measured at 7 stations in the Rouge River watershed. Benthic invertebrates (small aquatic animals living in the sediment) were identified at 24 stations. The type and proportion of these animals are indicators of water quality conditions. These indicators were combined to provide a grade for the watershed.

What did we find?

- The Rouge River watershed received an overall 'C' grade for surface water quality which is the same as the previous report card in 2013.
- Chloride concentrations are not part of the grade but chloride is an issue for the watershed. Over 60% of the samples were above the guideline of 120 mg/L. The chloride found in streams is typically from road salt and elevated chloride concentrations can harm aquatic life.



Data are based on surface water quality monitoring stations that are part of the Ontario Ministry of the Environment and Climate Change's Provincial Water Quality Monitoring Network (PWQMN) and/or TRCA's Regional Watershed Monitoring Program (RWMP).

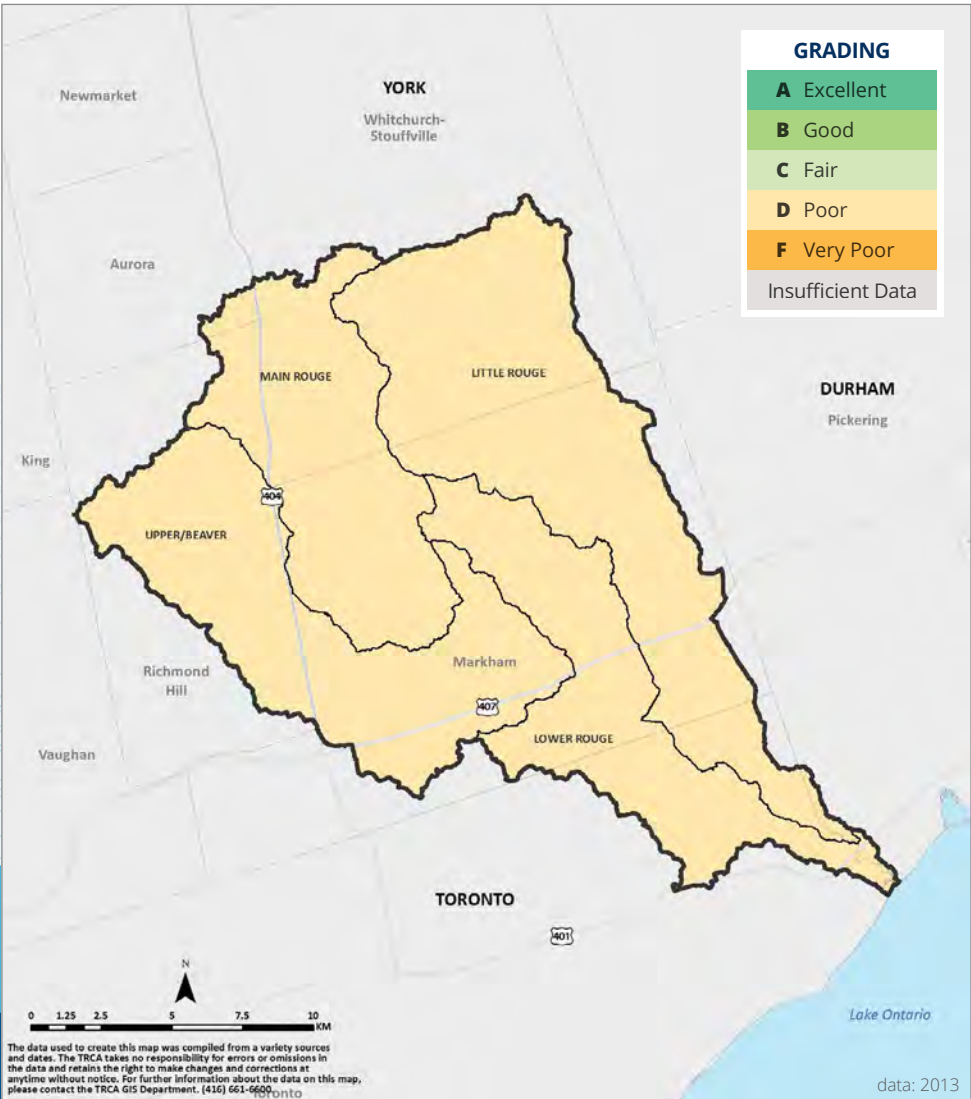


FOREST CONDITIONS

Forests help to clean our air and water, provide habitat and shade, improve water infiltration, and help to reduce both erosion and flooding. The percentages of forest cover, forest interior, and streamside cover were measured with Geographic Information Systems (GIS) and combined to provide a grade for the watershed.

What did we find?

- The Rouge River watershed received a 'D' grade for forest conditions which is the same as the previous report card in 2013.
- There was about 13% forest cover, <1% interior forest cover, and 36% streamside cover, which is similar to the previous report card.
- Some areas of Rouge National Urban Park contain large blocks of forest that are home to sensitive birds and plants.



Forest condition targets were set by Conservation Ontario. TRCA has a unique set of targets for natural cover which consists of areas of natural vegetation such as forest, wetland, and meadow. TRCA specific targets are not included in this report card.

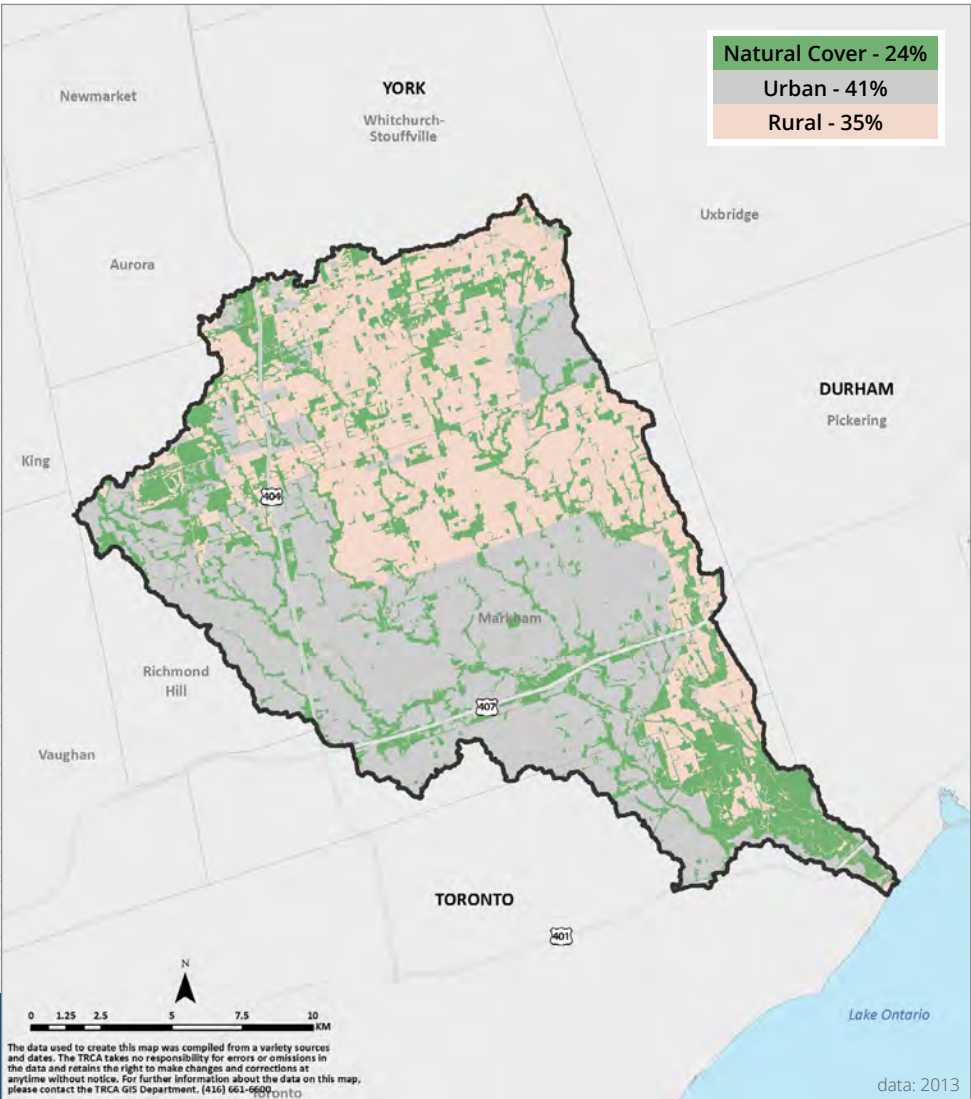


LAND COVER

How we use land affects the natural environment and our health. Forests and wetlands have been removed over time because agricultural and urban land uses have expanded. As our region continues to grow, we need to consider how to increase the amount of natural cover and greenspace available so that people can enjoy the many health benefits of nearby nature.

What did we find?

- The Rouge River watershed is comprised of 41% urban area, 35% rural area, and 24% natural cover.
- About two-thirds of the population of the Rouge River watershed is within 300 m of natural cover greater than 1 ha in size.
- Natural cover is unevenly distributed across the Toronto region. More natural cover would mean additional opportunities to support wildlife populations and habitat, and equal access to nature for residents.



Natural cover consists of vegetation such as forest, wetland, and meadow. Distance to natural cover and size values are based on indicators recommended in scientific literature (e.g. Van den Bosch et al., 2015).