

WHAT ARE THE WATERSHED'S KEY ISSUES?

Stormwater Runoff

- Water from rain or snow runs off hard surfaces like pavement into nearby streams.
- The high water flows associated with stormwater results in streambank erosion and increased flooding during storm events.
- Stormwater is also associated with poor water quality because it carries sediments and contaminants directly into the river system.
- Stormwater carries chloride from road salt to streams, ponds, and lakes.

Habitat Loss and Fragmentation

- Today, only 11% of the watershed is natural cover such as forest and meadow.
- The natural cover remaining is unevenly distributed across the watershed and is found mostly in the lower reaches.

Invasive Species

- Several invasive plant species such as dog-strangling vine and common buckthorn are in the watershed and continue to spread, jeopardizing the quality of the remaining natural cover.

HOW CAN WE ENHANCE THE WATERSHED?

What can you do?

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

THE SALMON FESTIVAL AT HIGHLAND CREEK

Many residents are not aware that there are salmon in many Toronto region rivers. *The Salmon Festival*, hosted at Morningside Park each autumn, provides an opportunity for local residents to view the salmon migration and connect with the beautiful natural ecosystem found in Highland Creek. thesalmonfestival.ca



What local actions are planned?

Highland Greening Strategy

TRCA and the City of Toronto are currently developing the *Highland Greening Strategy* to prioritize projects that will help restore this highly urbanized watershed. Once implemented, the watershed and its residents will be better prepared for future climate changes.

trca.ca/highland

@TRCA_Highland

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To learn about The Living City Foundation: thelivingcity.org



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

Highland Creek 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

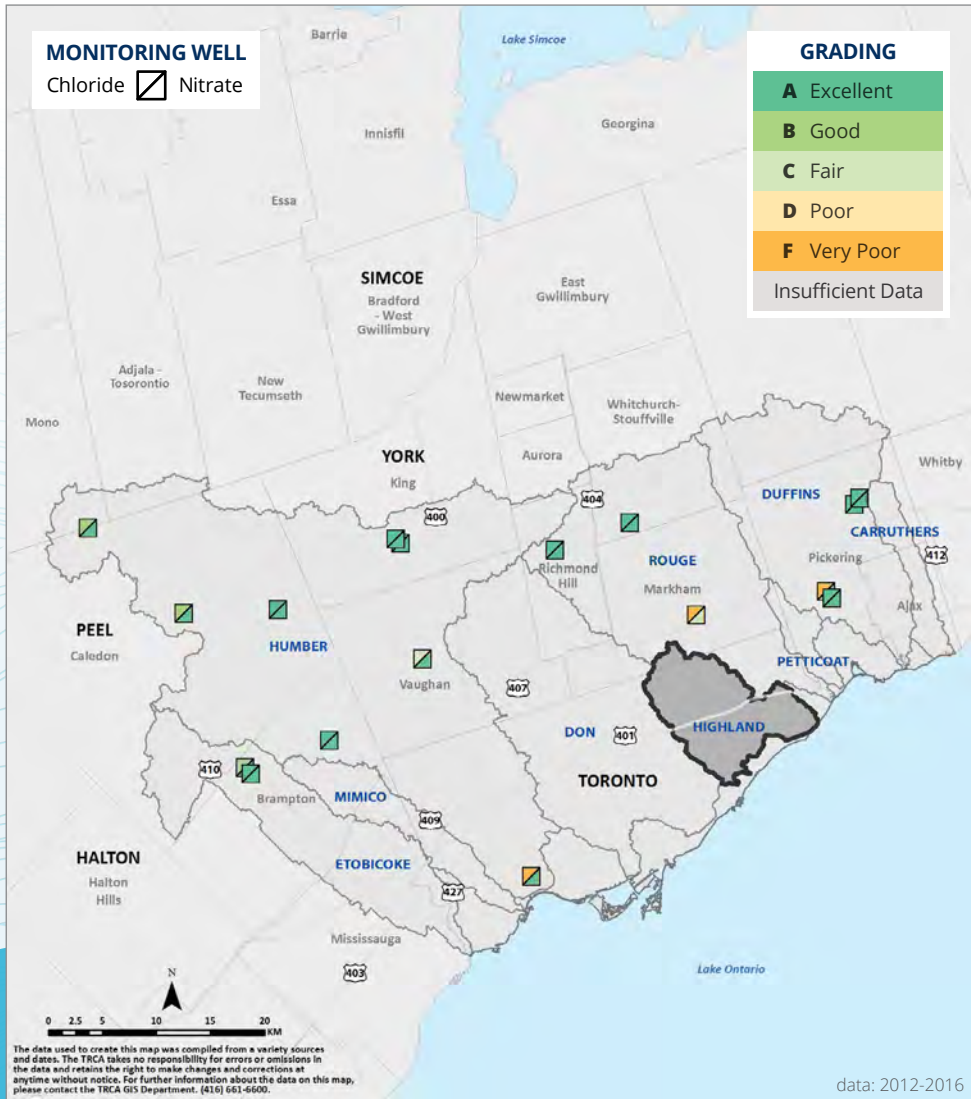


GROUNDWATER QUALITY

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, concentrations of nitrate at individual monitoring wells were better than the drinking water guidelines in most wells ('A' grade).
- About 60% of the monitoring wells in the TRCA jurisdiction received an 'A' grade for chloride. The 'F' grades were located in urban areas close to major roads.



Monitoring wells are part of the Ontario Ministry of the Environment and Climate Change's Provincial Groundwater Monitoring Network (PGMN). No wells were located within Highland Creek watershed.

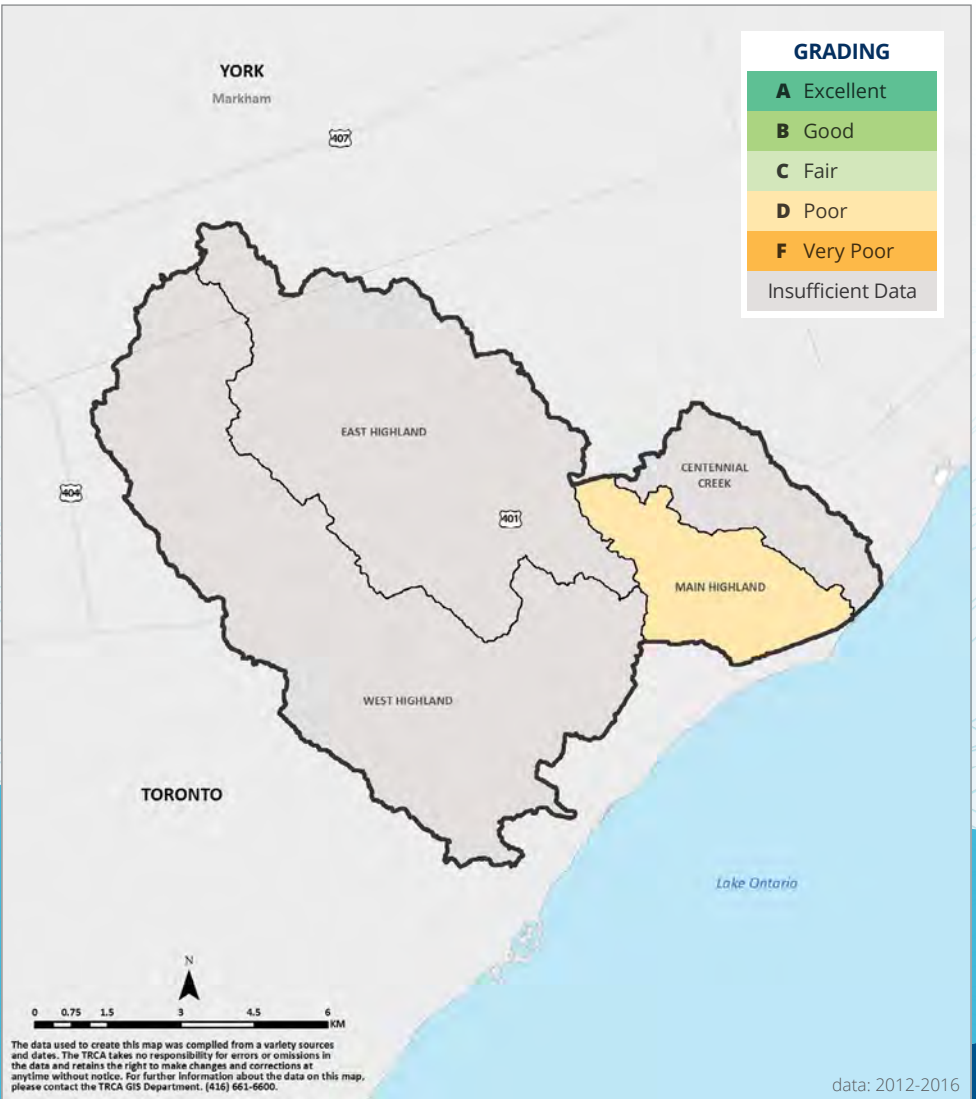


SURFACE WATER QUALITY

Concentrations of phosphorus and Escherichia coli (E. coli) bacteria were measured at 1 station in the Highland Creek watershed. Benthic invertebrates (small aquatic animals living in the sediment) were identified at 10 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 Highland Creek watershed received an overall 'D' grade for surface water quality which is the same as the previous report card in 2013.
- Chloride concentrations are not included in the grade but chloride is an issue for the watershed. Almost 100% of the samples were above the recommended guideline of 120 mg/L. The chloride found in streams is typically from road salt and elevated chloride concentrations can harm aquatic life.



Data is 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).

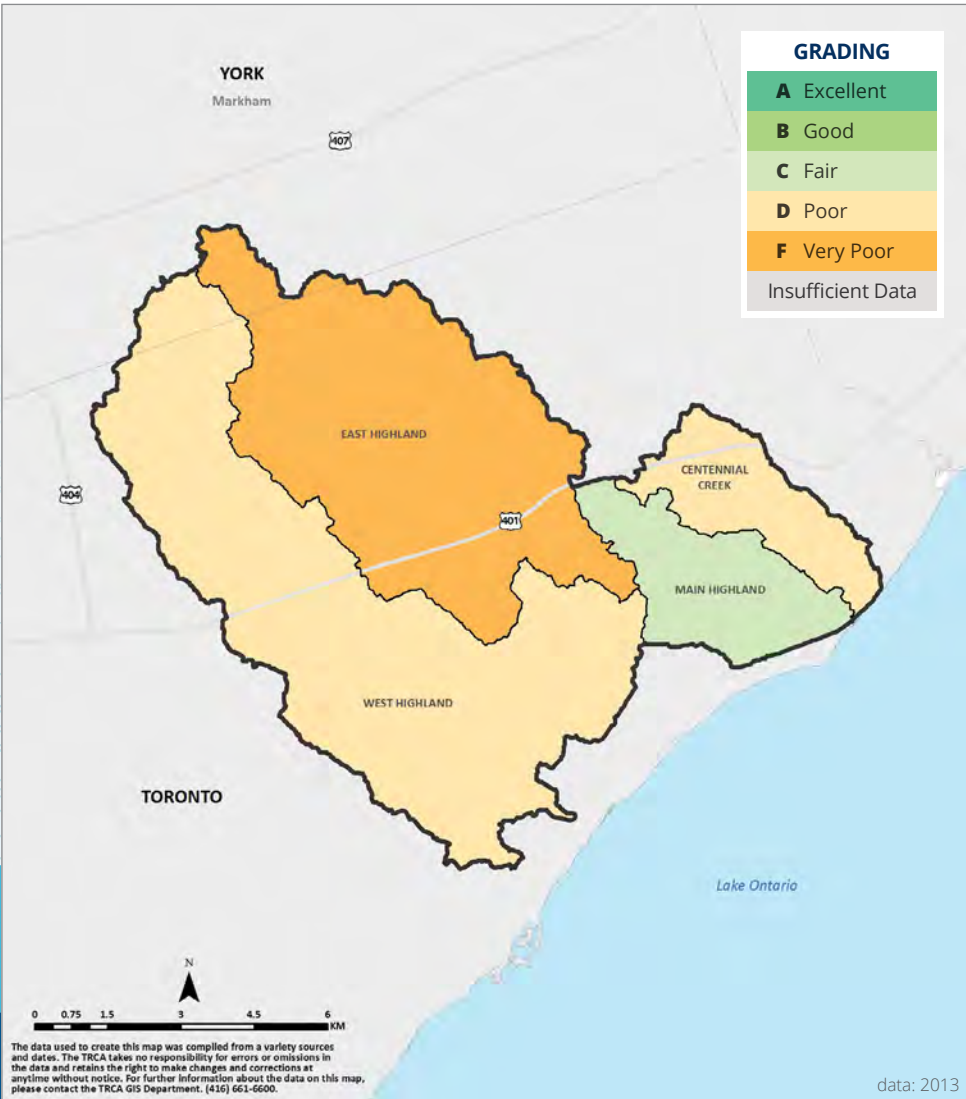


FOREST CONDITIONS

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 Highland Creek watershed received a 'D' grade for forest conditions which is the same as the previous report card in 2013.
- There was about 6% forest cover, <1% interior forest cover, and 37% streamside cover. The proportions of forest cover were similar to the previous report card in 2013.



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.

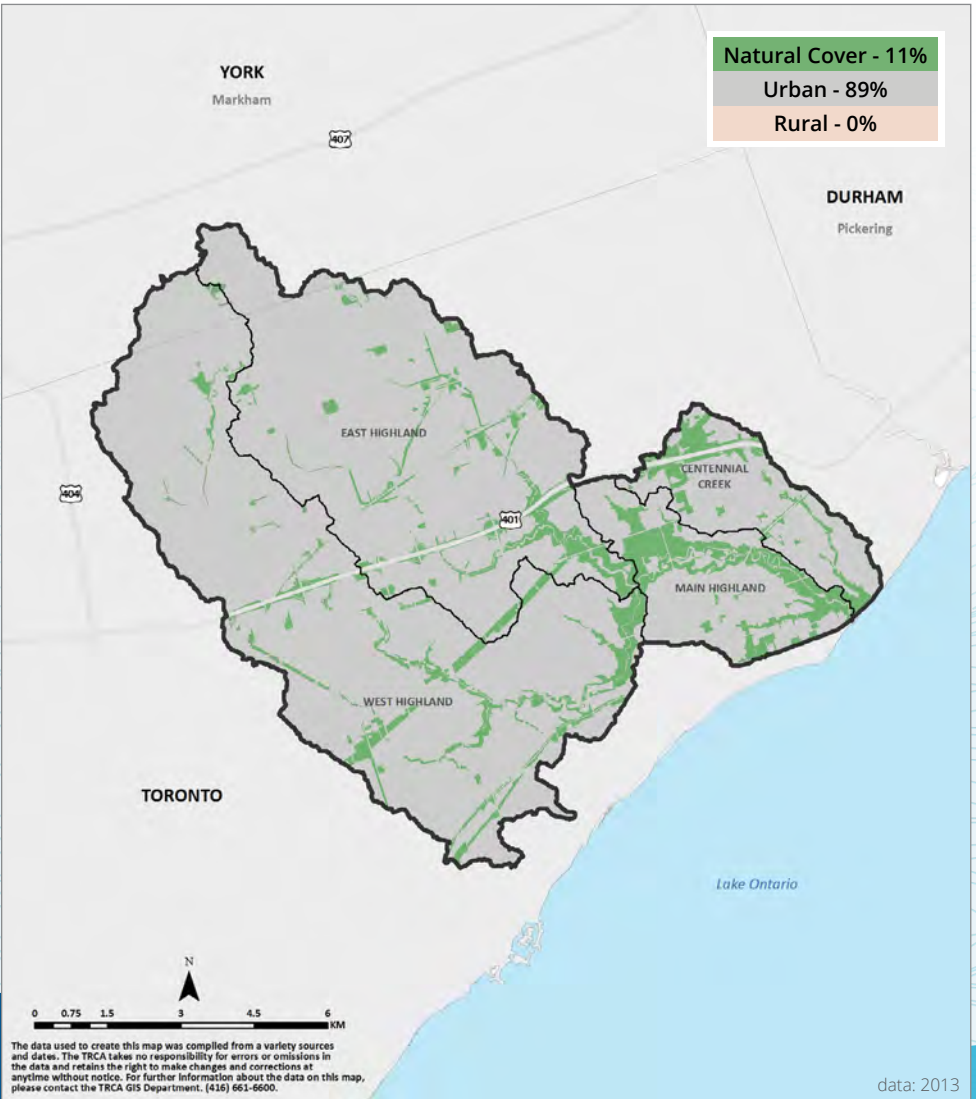


LAND COVER

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 Highland Creek watershed is almost completely urbanized—the land cover is 89% urban and 11% natural cover.
- About half of the population in the watershed (53%) 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).