

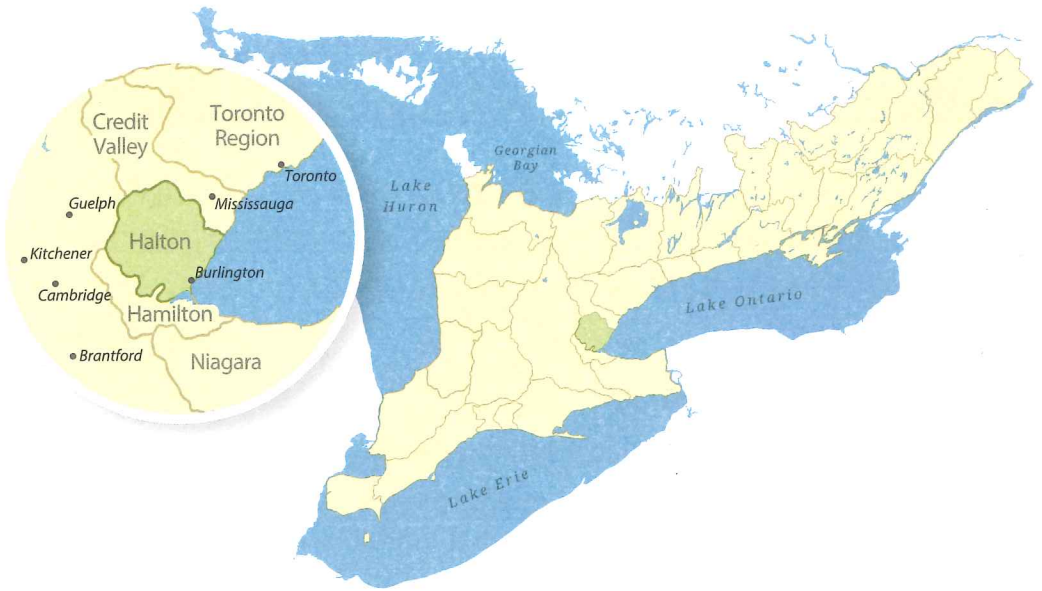
# Conservation Halton **WATERSHED** Report Card 2018



Conservation Halton has prepared this report card as a summary of the state of our forests, wetlands and water resources using data from 2012 to 2017.



# WHERE ARE WE?



## What is a Watershed?

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

## 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



Impervious Cover

## 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.



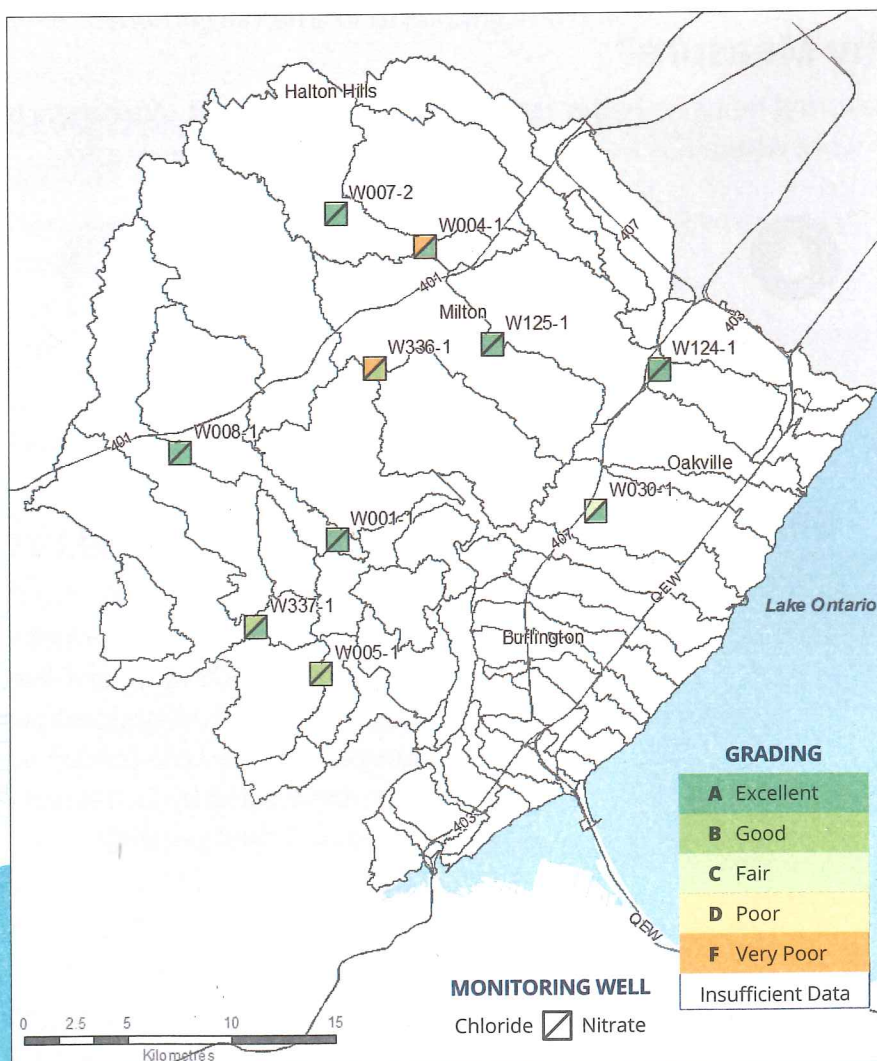
# GROUNDWATER QUALITY

Concentrations of nitrate + nitrite as well as chloride levels were monitored at 10 groundwater wells across the Conservation Halton watershed.

## What Did We Find?

- Grades ranged from A (Excellent) to F (Very Poor) with mostly A grades.
- Three wells are highly influenced by the surrounding shale bedrock resulting in naturally high chloride conditions.
- Two wells (W336-1 and W005-1) are showing impacts from human activities such as road salting and agricultural activities as they are higher in both chloride and nitrogen concentrations.

For more details about the information found in these maps, visit [conservationhalton.ca](http://conservationhalton.ca) or contact us. You can find our contact information on the back panel.



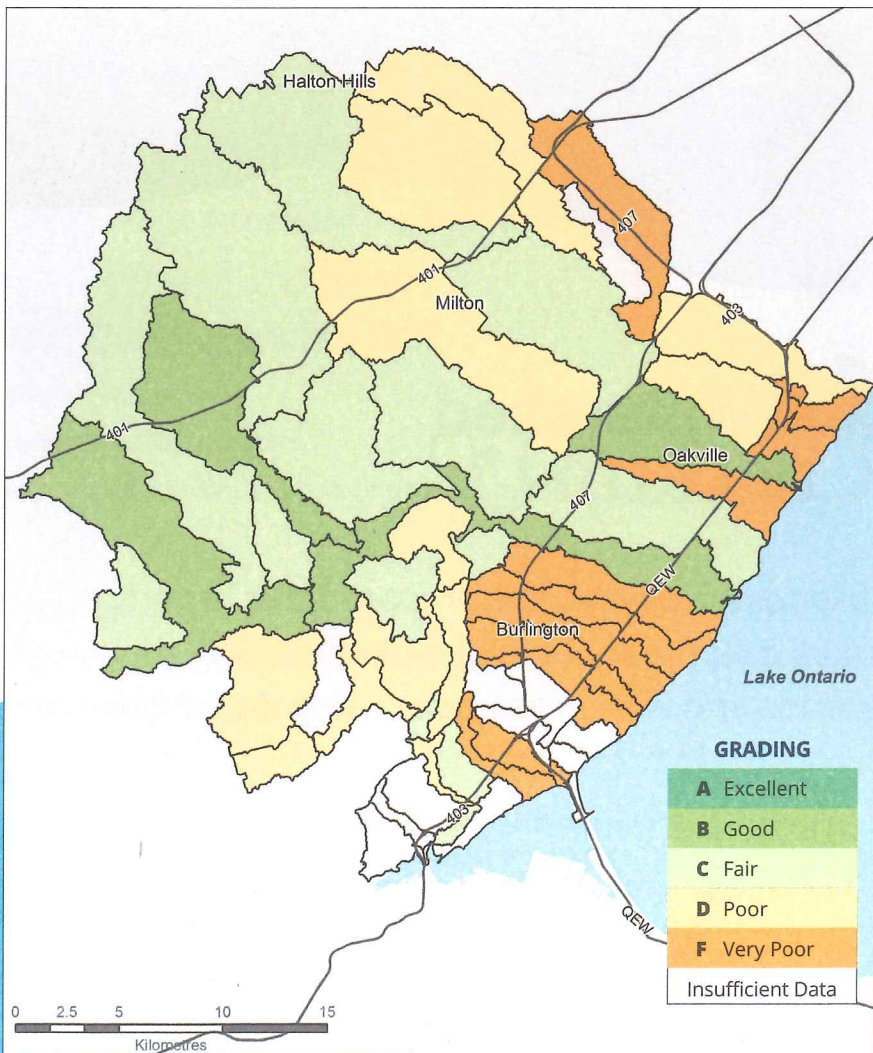


# SURFACE WATER QUALITY

*Grades for surface water quality are based on chemical (phosphorus concentrations) and biological (benthic invertebrates) indicators of water quality across the watershed.*

## What Did We Find?

- Grades ranged from B (Good) to F (Very Poor).
- Subwatersheds with lower scores (D to F) tend to be in agricultural or urban areas.
- Subwatersheds with higher scores (B to C) tend to be in areas with more natural cover, including higher amounts of forest cover.
- Ongoing efforts to improve stormwater management and increase the use of low impact development (LID) practices will help to improve water quality.



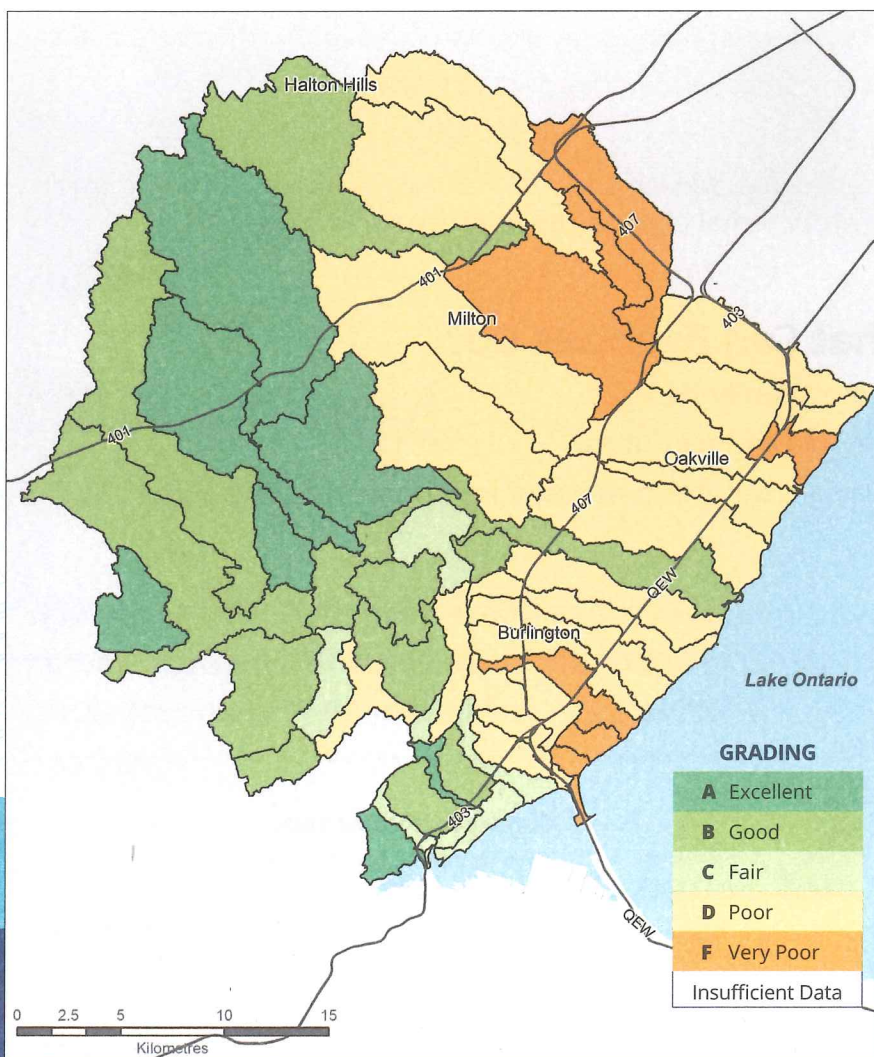


# FOREST CONDITIONS

Grades are based on the percentage of forest cover, forest interior (100m from the forest edge) and streamside vegetation that is forested. Streamside forests in particular help improve water quality.

## What Did We Find?

- Grades ranged from A (Excellent) to F (Very Poor), with mostly D (Poor) grades.
- Majority of forest cover was found above the Niagara Escarpment where urban development and agricultural activities are limited.
- Large tracts of forests are scarce and while streamside vegetation is good in some areas, increases in streamside vegetation will aid in improving the health of aquatic and terrestrial ecosystems.

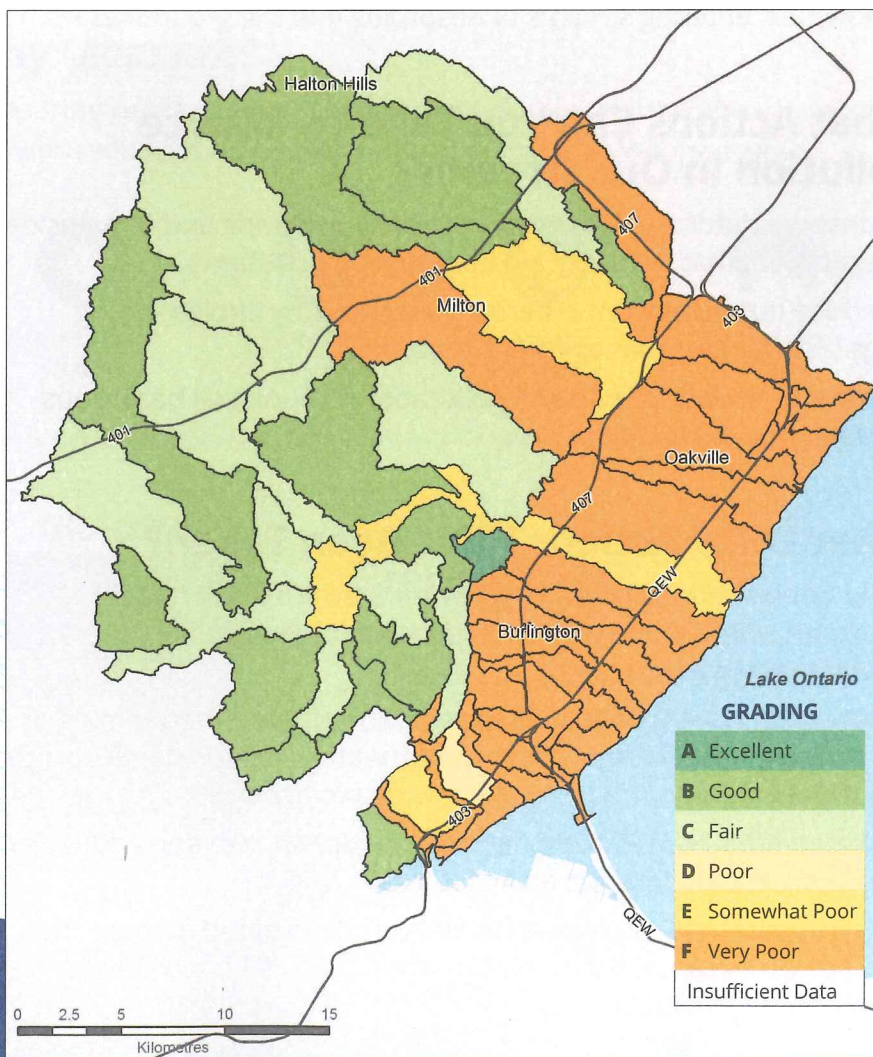


# IMPERVIOUS COVER

Grades are based on the percent of land cover that cannot absorb water (such as paved or hard surfaces). A greater amount of impervious cover increases the volume of water runoff, which impacts stream health by altering habitats, increasing water temperatures and adding pollutants to the watercourse.

## What Did We Find?

- Grades ranged from A (Excellent) to F (Very Poor).
- Maintaining natural cover and implementing low impact development (LID) practices encourage infiltration.
- Areas of urban development older than 40 years (South Burlington, South Oakville, Waterdown and Milton downtown core) have the lowest scores (F).
- Areas near or above the Niagara Escarpment have more natural cover that is pervious resulting in higher scores ranging from A to C.



These values were measured through air photos





## WHAT IS ONE OF OUR WATERSHED'S KEY ISSUES?

### **Pollution Of Our Streams:**

- Chemical and physical pollution (including thermal pollution) have impacts on animals that live in or nearby streams.
- Pollution comes from various sources across urban, residential and agricultural landscapes.
- Pollutants and soils run off fields, roads and yards during rain or snowmelt, entering streams or absorbing into the groundwater.

### **What Actions Can You Take To Reduce Pollution In Our Streams?**

- Conserve natural landscapes, especially wetlands and streamside vegetation, that naturally aid in removing pollutants.
- Reduce nutrients from entering waterways by implementing agricultural best management practices.
- Properly dispose of harmful pollutants at municipal hazardous waste drop-off locations.

### **What Local Actions Have Been Taken?**

- The Conservation Halton Landowner Stewardship Program partners with landowners to undertake projects to improve habitat and water quality.
- More than 65,000 people attended educational programming at our parks in 2017, and more than 11,000 watershed residents participated in conservation outreach and stewardship activities.
- Conservation Halton completed 37 floodplain, wetland and watercourse restoration activities in 2017.
- It's a team effort! Conservation Halton participated in more than 130 environmental partnership initiatives in 2017, including a major restoration undertaking at Courtcliffe Park in Hamilton, and the 12th anniversary of the very successful Halton Children's Water Festival.

# HOW CAN WE ENHANCE THE WATERSHED?

## What Can You Do?

- Increase natural vegetation on your property, especially along shorelines.
- Seek alternatives to road salt, fertilizers and pesticides.
- Reduce storm water runoff by redirecting water to permeable surfaces such as gardens or grass.
- Conserve water, use a rain barrel.
- Participate in community tree planning or restoration opportunities.
- Explore and enjoy the natural resources around you!



## What Can Your Community Do?

- Support initiatives to improve stormwater management.
- Adopt low impact development practices to help reduce runoff.
- Direct development away from areas of environmental significance.
- Minimize salt use and explore new alternatives.
- Protect wetlands and other natural heritage features.
- Support monitoring and restoration initiatives in order to track environmental change and improve conditions.

## What Can Agencies Do?

- Protect wetlands.
- Green their operations.
- Evaluate the effectiveness of environmental programs.

*Do you have questions not answered by this summary document? Visit [conservationhalton.ca](http://conservationhalton.ca) or contact us for more information:*



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