

## HOW CAN WE ENHANCE OUR WATERSHED?



### What Are We Doing?

- Planting tens of thousands of trees each year
- Teaching thousands of youth through our extensive Conservation Education Programs
- Protecting communities from flooding by monitoring stream flows and watershed conditions
- Maintaining municipal structures such as dykes, that protect urban areas from natural hazards and flooding
- Preventing loss of life and property damage through proper planning and regulations
- Implementing stewardship efforts such as erosion control along streambanks, fencing to keep livestock out of streams, the removal of dams to improve fish habitat, and more
- Providing education and treatment options for invasive species, such as the Emerald Ash Borer and *Phragmites australis*
- Continually monitoring the Watershed for environmental stressors
- Hosting peer to peer agricultural workshops about soil health and water quality
- Encouraging the planting of natural buffers along streams, lakes and waterways
- Providing municipalities with technical knowledge and expertise to assist them in dealing with environmental issues
- Working with groups and organizations on efforts to improve the local environment
- Protecting over 8,000 ha of important wetlands, woodlands and headwater areas
- Attending shows, events and fairs to promote conservation information and awareness

For more information on Saugeen Conservation and what we do to enhance the Watershed and improve environmental health, visit [www.svca.on.ca](http://www.svca.on.ca)



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## HOW CAN WE ENHANCE OUR WATERSHED?

### What Can You Do?

- Dispose of litter and hazardous chemicals properly
- Collect rainwater for your garden
- Start or maintain a compost
- Plant native trees and shrubs
- Conserve and protect wetlands
- Reduce, re-use, recycle
- Plant a garden for butterflies, bees and other pollinators
- Do not move firewood
- Connect existing natural areas such as woodlands and windbreaks with wildlife corridors
- Protect soil from wind and water erosion through good conservation practices
- Naturalize shorelines by creating buffers along creeks and lakes
- Inspect your septic system every three to five years
- Establish or maintain good crop rotation and soil health

*These are just a few suggestions on how you can help the environment. We encourage all practices that contribute to a healthy watershed!*



*Do you have questions? Visit [svca.on.ca](http://svca.on.ca) for the sub-watershed reports or contact us for more information.*



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This Watershed Report Card is available online and in other formats upon request.

## Saugeen Conservation

# WATERSHED

## Report Card 2018



Saugeen Conservation has prepared this report card as a summary of the state of your forests, wetlands, and water resources.



## WHERE ARE WE?



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

### What is a Watershed?

A watershed is an area of land drained by a river and its tributaries. Everything in a watershed is connected and 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



Wetland Conditions

### 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

Groundwater is the water found below the earth's surface in loose soil, gravel (called overburden) or bedrock. Groundwater quality is graded on two parameters: chloride (found in road salts, industrial discharges or landfill leachate), and nitrate (found as a result of decaying organic material, fertilizers, sewage, or it can be naturally occurring).

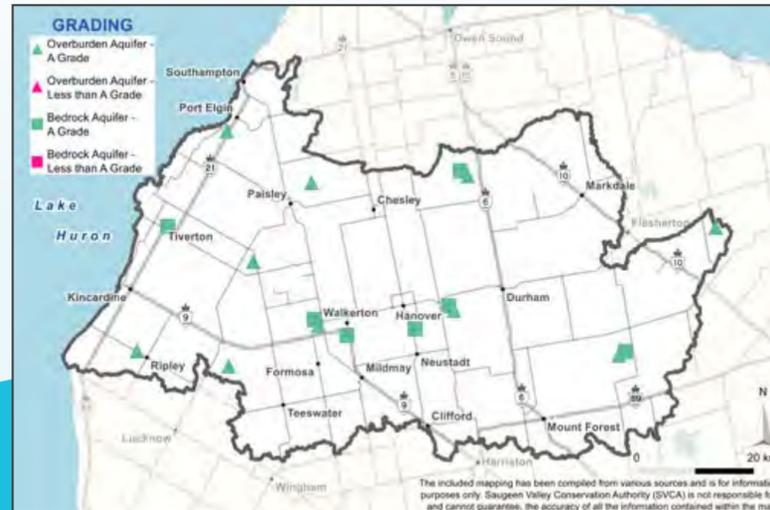
Concentrations of chloride and nitrate were measured at 21 Ontario Ministry of the Environment and Climate Change (MOECC) monitoring wells within this watershed. Learn more about groundwater at [goo.gl/e2bHoj](http://goo.gl/e2bHoj)

## Our Findings

- All groundwater monitoring wells have excellent water quality within SVCA's jurisdiction
- Chloride and nitrate concentrations are better than Ontario's Drinking Water Guidelines in all wells (A grade)
- Average nitrate concentrations decreased slightly, while chloride concentrations increased slightly compared to the previous Watershed Report Cards

Note: The quality of your well water may vary from that of the monitoring wells. In some instances the location of SVCA wells was chosen to monitor local issues.

Groundwater is located beneath the surface of the ground in overburden and bedrock aquifers and supplies water to wetlands, rivers, streams and drinking water wells.



# SURFACE WATER QUALITY

Surface water is the water found in lakes, rivers and streams. It is graded on three indicators including phosphorus, *E. coli*, and benthic macroinvertebrates (small aquatic animals living in the sediment).

Concentrations of phosphorus and *Escherichia coli* (bacteria) were measured at Ontario Ministry of the Environment and Climate Change (MOECC) and Saugeen Conservation stations. Benthic macroinvertebrates were also identified. The type and number of these animals are measures of water quality.

## Our Findings

- Grades range from A to C, with mostly B grades
- Most watersheds remain steady since the last reporting period, however, there have been improvements within the Lower Main Saugeen, Rocky Saugeen, South Saugeen and Teeswater River Watersheds
- The Beatty Saugeen River declined from a B to a C grade, however, this is likely due to limited benthic data for this reporting period, (visit the 'Water Quality Monitoring' page at [svca.on.ca](http://svca.on.ca) to compare 2007 and 2013 report cards)
- In general, water quality improves upstream, away from highly agricultural areas, and where there are more wetlands and forest cover

Healthy rivers and lakes are key to our natural environment, providing habitat to aquatic life, supplying people with food, water and recreational activities as well as supporting forests and recharging groundwater.



# FOREST CONDITIONS

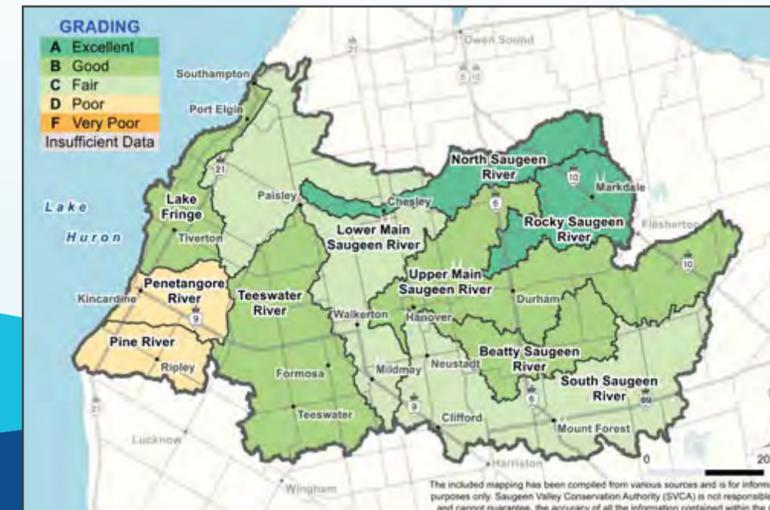
Forest conditions were graded on the percentage of forest cover, forest interior (forested area beyond a 100-metre-wide strip from the forest edge), and riparian cover. Forest interior is habitat deep within woodlands and is a sign of healthy forests. Riparian cover (forested area within 30 metres of a watercourse on both sides), provides river bank stability, shading, food sources, habitat and helps filter impurities.

The percentages of forest cover, forest interior, and streamside cover were measured using a Geographic Information System (GIS).

## Our Findings

- Grades range from A to D, with mostly B grades
- In total, the SVCA jurisdiction has approximately 27.5% forest cover (Bruce County 20.9% and Grey County 35.7%)
- 761,249 trees planted over the past five years as part of the 50 Million Tree Program
- While environmental benefits begin as soon as trees start to grow, changes in forest cover are not seen for five years or more

Forests provide important habitat for thousands of species, trap and store CO<sub>2</sub>, provide oxygen, prevent soil erosion, offer recreational activities, economic benefits, and help to mitigate climate change.



# WETLAND CONDITIONS

The Saugeen Watershed contains four types of wetlands including swamps, bogs, fens and marshes. Wetlands were graded on the percentage of wetland cover.

The percentage of wetland cover was measured using a Geographic Information System (GIS).

## Our Findings

- Grades range from A to D, with mostly A grades
- Approximately 17.5% of the SVCA jurisdiction is covered by wetlands (Bruce County 13.1% and Grey County 22.8%)
- The Teeswater River Watershed and the headwater areas, such as the Upper Main Saugeen Watershed, have a relatively high percentage of wetlands
- More wetlands are needed in strategic locations
- Greater commitment to conserving wetlands is needed across the SVCA jurisdiction

Wetlands are a critical part of our natural environment. They mitigate floods and droughts, protect our shorelines, reduce flooding and erosion, absorb pollutants, improve water quality, and provide rich habitats for numerous species.

