Nottawasaga Valley

WATERSHED
Report Card 2018

Watershed Checkup

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

Nottawasaga Valley Conservation Authority

Member of Conservation ONTARIO

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 in our Great Lakes.

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.

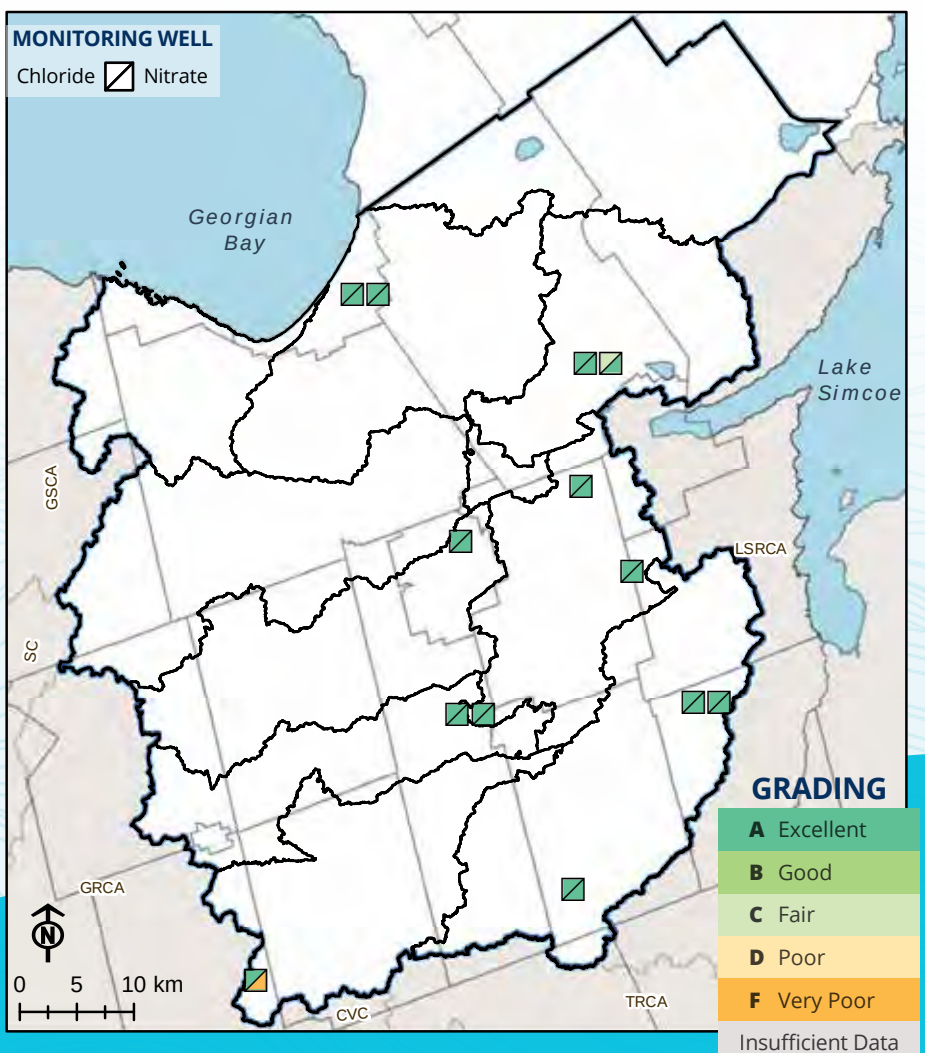
GROUNDWATER QUALITY

Groundwater is water that is located underground in sands and gravel or bedrock fractures. A dynamic system, groundwater sustains stream flow and wetland levels during dry spells. It supports a variety of human uses including drinking water supplies, agricultural irrigation and recreational activities.

NVCA monitors water levels and concentrations of nitrate and chloride at 16 Provincial Groundwater Monitoring Program wells across the watershed. Groundwater grades are based on samples from these wells.

What Did we Find?

- Grades are predominantly A, with the exception of a C grade for chloride (salt) in Midhurst and an F grade for nitrate in Amaranth. Both lower grades are linked to local land uses.
- Note that water quality in nearby wells should not be extrapolated from that of the monitored wells, as in some cases there are multiple aquifers in close proximity.



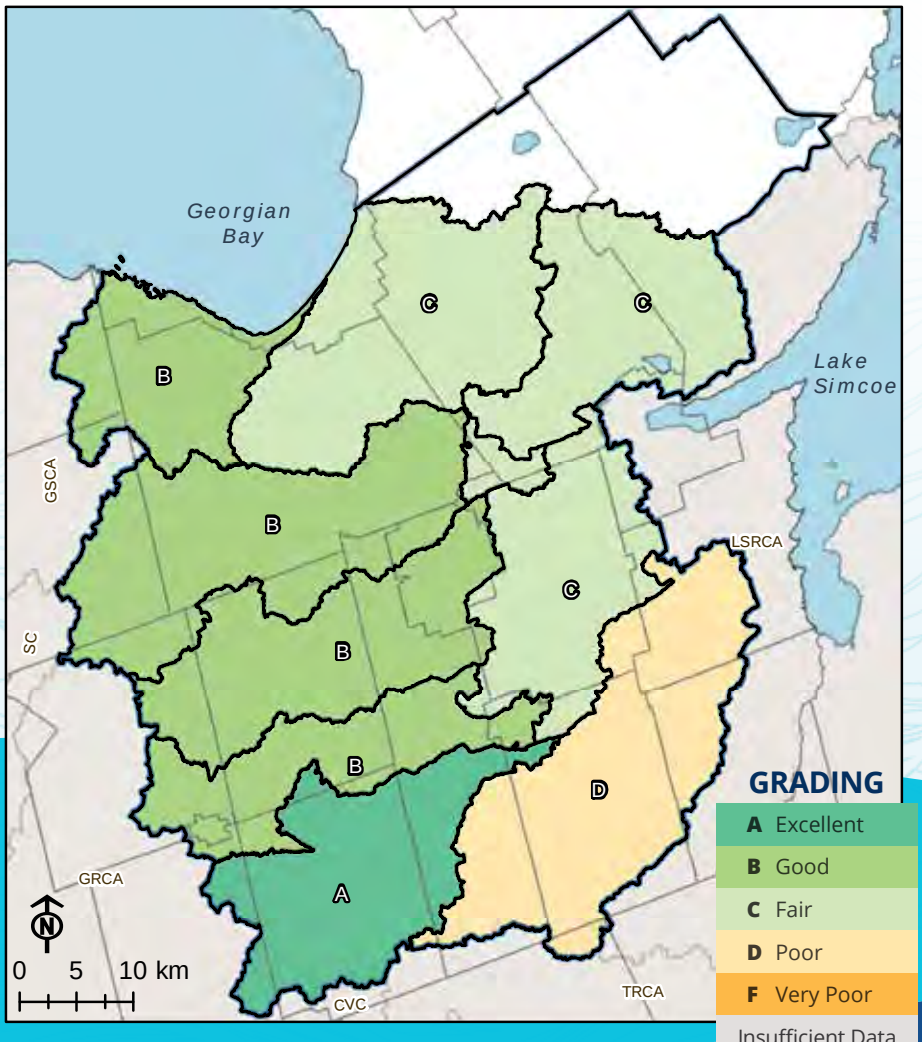
SURFACE WATER QUALITY

Surface water is the water we see around us daily - the water found in streams, rivers and lakes. The quantity and quality of our surface water has implications for municipal drinking water, agricultural irrigation, commercial uses and recreation, not to mention the health of the environment.

Surface water quality is graded using insects that inhabit the stream (strong indicators of stream health), phosphorous levels, and bacteria (E. coli concentrations).

What Did we Find?

- Grades range from A to D, with mostly B grades.
- In general, all sub-watershed grades remained steady over a five-year period. However, marginal improvements in the Pine and Boyne sub-watersheds resulted in a higher grade.
- Higher grades in western sub-watersheds are likely influenced by forest cover and groundwater discharge from the Niagara Escarpment.



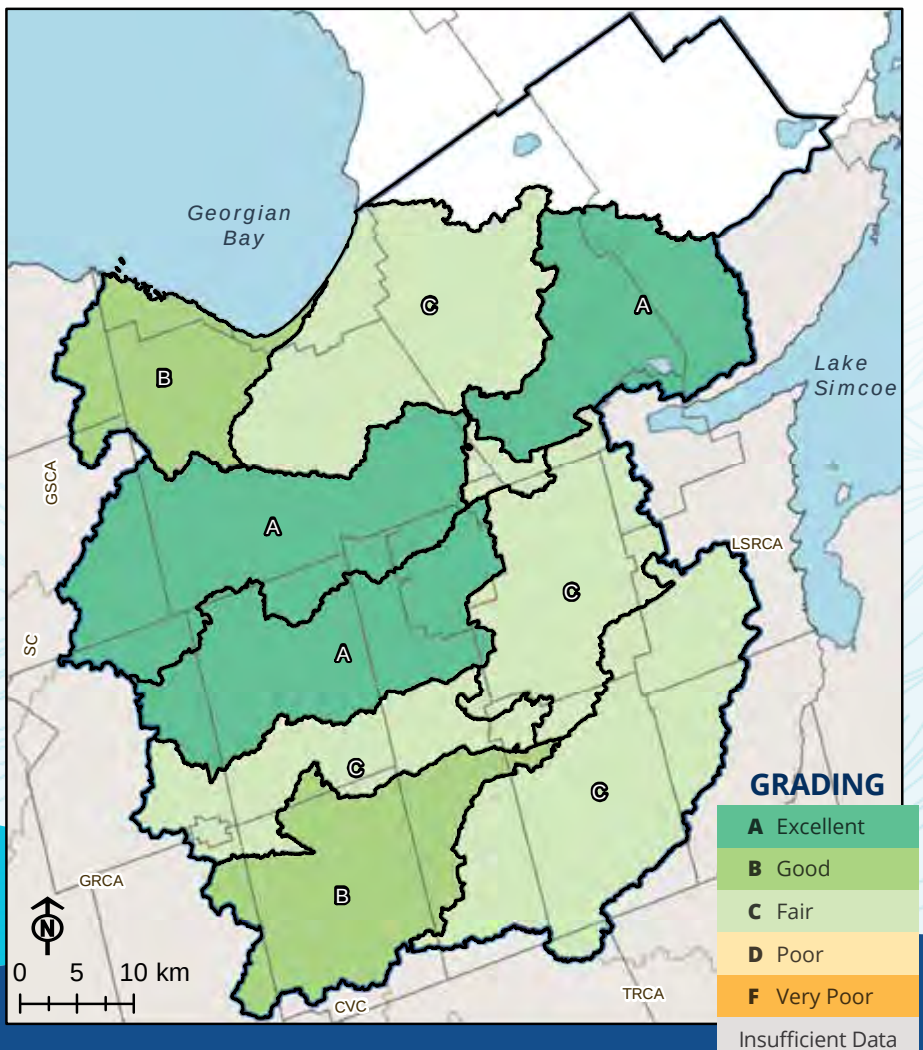
FOREST CONDITIONS

A forest is a diverse ecosystem of trees, shrubs, grasses, wildflowers and wildlife. Forests provide many social and ecological benefits, including carbon sequestration, habitat for flora and fauna, building materials and opportunities for recreation.

The amount of forest cover, deep forest habitat and stream-side (riparian) cover are important indicators that can be used to describe forest health within the watershed. NVCA measures forest cover by looking at the percentage of forest cover in the watershed, the percentage of forest interior (woodland more than 100 m from the edge of a forested area), and the percentage of natural riparian area.

What Did we Find?

- Grades range from A to C, with mostly C grades.
- Forest conditions have not been updated for this report card and are based on 2012 mapping.



WETLAND COVER

Wetlands play an important role in the ecological health of a watershed.

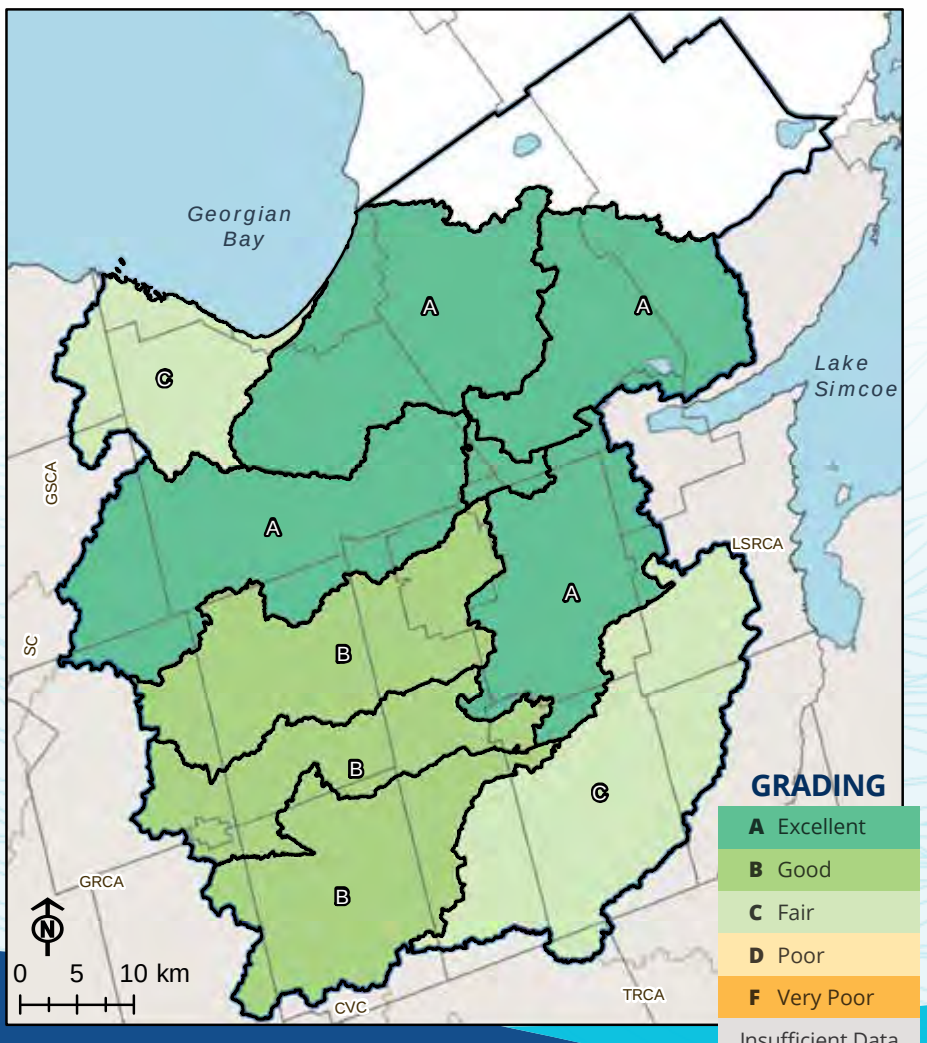
They improve water quality by filtering runoff from agricultural and urban areas. Wetlands hold back water on the landscape, controlling flooding, reducing erosion and maintaining stream flows during dry periods. Wetlands also provide habitat for a rich variety of flora and fauna.

NVCA evaluates wetland cover using Geographic Information Systems (GIS) data and field observations.

What Did we Find?

- Grades range from A to C, with mostly A grades.
- Wetland cover has not been updated for this report card and is based on 2012 mapping.

For more details about the information found in these maps, visit nvca.on.ca or contact us. You can find our contact information on the back panel.



HEALTHY WATERS — HEALTHY COMMUNITIES

We all have a role to play in keeping our watershed ecosystem healthy. Through innovative planning and wise stewardship, we can sustainably manage our local streams, lakes and natural areas for the benefit of present and future generations.

Watershed Stewardship – What Can You Do?

Stewardship projects like tree planting, stream habitat restoration and agricultural best management practices that reduce erosion and runoff, can be simple and cost effective ways to improve watershed health.

Here are some things you can do at home to help:

- Minimize your use of fertilizers and pesticides, and keep your septic system in good working order to avoid contaminating groundwater and nearby streams and lakes.
- Plant trees, shrubs and wildflowers to improve water quality, help clean the air and enhance local wildlife habitat.
- Prevent the spread of invasive species by gardening with non-invasive plants, washing your boat when moving from lake-to-lake, disposing of bait away from the water, and cleaning your shoes and bike tires after using local trails.
- Install bird, bat and pollinator boxes to provide wildlife habitat on your property.
- Conserve water by using a rain barrel, reducing lawn and garden watering, planting drought-resistant native plant species and installing low-flow household products.
- Don't pour anything down storm drains – these drains often flow untreated into local water bodies.

Considering a stewardship project? Contact NVCA for free technical support, workshops, advice on financial grants and more!

CONSERVATION IN OUR WATERSHED

NVCA is a public agency committed to innovative watershed management that supports a healthy environment and healthy communities. We work closely with municipal, provincial and federal governments, landowners and community groups to protect, restore and manage the natural resources of the Nottawasaga Valley watershed.

What Are We Doing?

- **Environmental Planning & Regulations:** We provide land-use planning input and administer Ontario Regulation 172/06, which ensures that development does not impact wetlands, shorelines or waterways.
- **Environmental Monitoring & Reporting:** We collect data to evaluate and report on existing watershed conditions and help establish targets for protection and rehabilitation activities.
- **Flood Forecasting & Protection:** We monitor water levels, issue flood alerts and manage flood control structures like dams and berms to help protect life and property from natural hazards such as flooding and erosion.
- **Education, Outreach & Stewardship:** We provide hands-on learning opportunities, project advice and financial assistance, and educate the public about conservation and the environment.
- **Conservation Lands:** We manage 5,300 hectares of land in the watershed to protect important natural ecosystems and provide outdoor recreation and tourism opportunities.

*Visit **nvca.on.ca** to learn more about our watershed and NVCA programs and services.*

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