Grey Sauble
Watershed Report Card 2023

Watershed Report Card

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

Grey Sauble CONSERVATION

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.

Why Measure?

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

- **Surface Water Quality**
- **Forest Conditions**
- **Wetland Conditions**

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.

A five-year cycle allows time to understand potential problems, to work with municipalities, environmental organizations, and the public to measurably improve watershed health, and gather enough data to provide a reliable summary of watershed conditions.

For more details about the information found in this document, visit www.greysauble.on.ca or contact us directly. You can find our contact information on the back panel.

GRADING

A	Excellent
B	Good
C	Fair
D	Poor
F	Very Poor
	Insufficient Data

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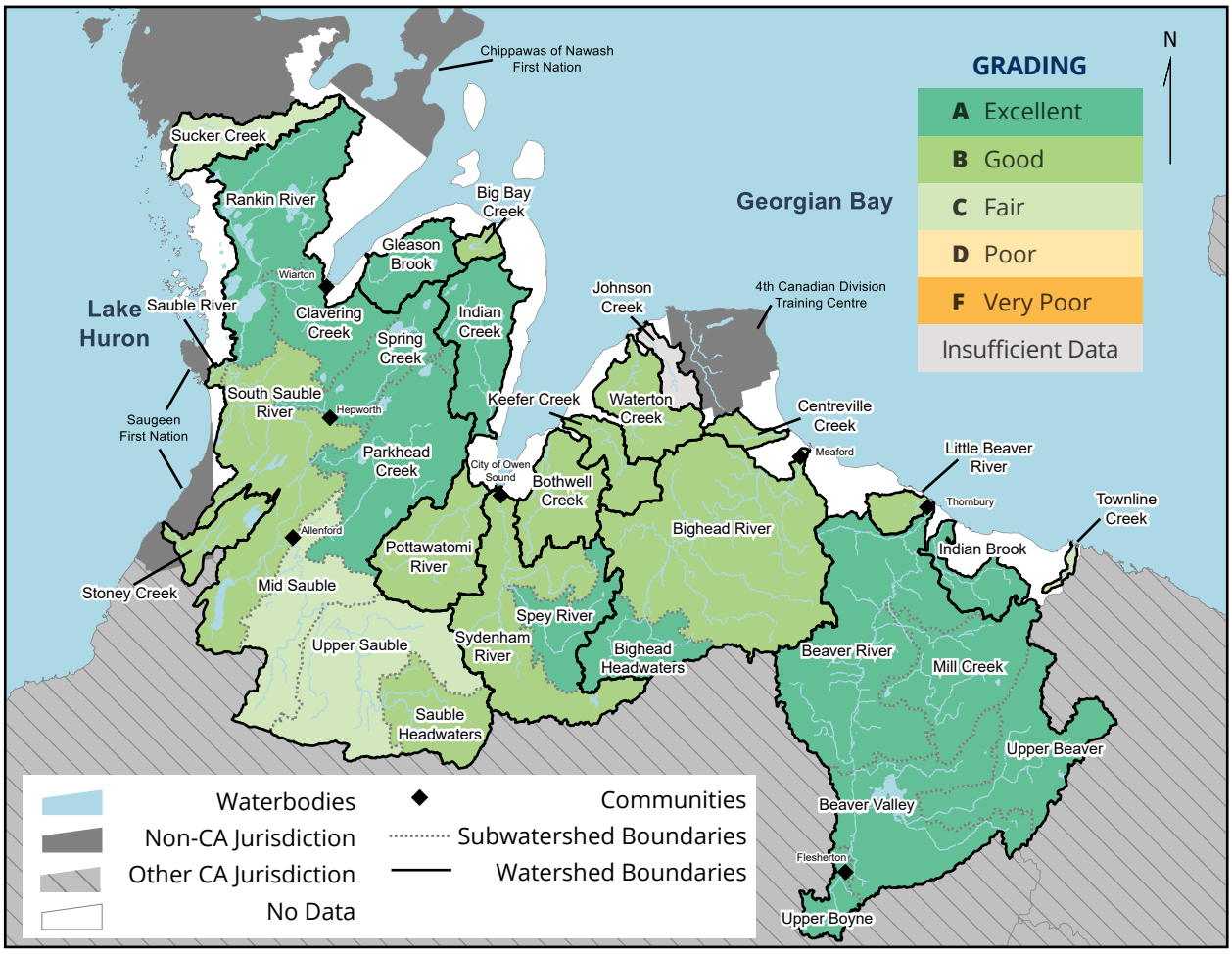
SURFACE WATER QUALITY

Total phosphorus and Escherichia coli (bacteria) were measured at sampling sites throughout the watersheds. The type and number of Benthic invertebrates (small aquatic animals living in the sediment) were also identified. The type and quantity of these animals indicate pollution levels and stream health as measures of water quality. High surface water quality supports safe drinking water and provides social, economic, and health benefits to people and wildlife.

What Did We Find?

- Water quality grades are high with most watersheds achieving a grade of excellent or good.
- Watersheds that have a lower water quality grade typically have poor forest cover grades as well, specifically poor treed riparian areas along watercourses.
- Ongoing efforts are necessary to maintain high water quality grades and improve areas that have lower grades.



For a list of letter grades for each watershed, see page 6.

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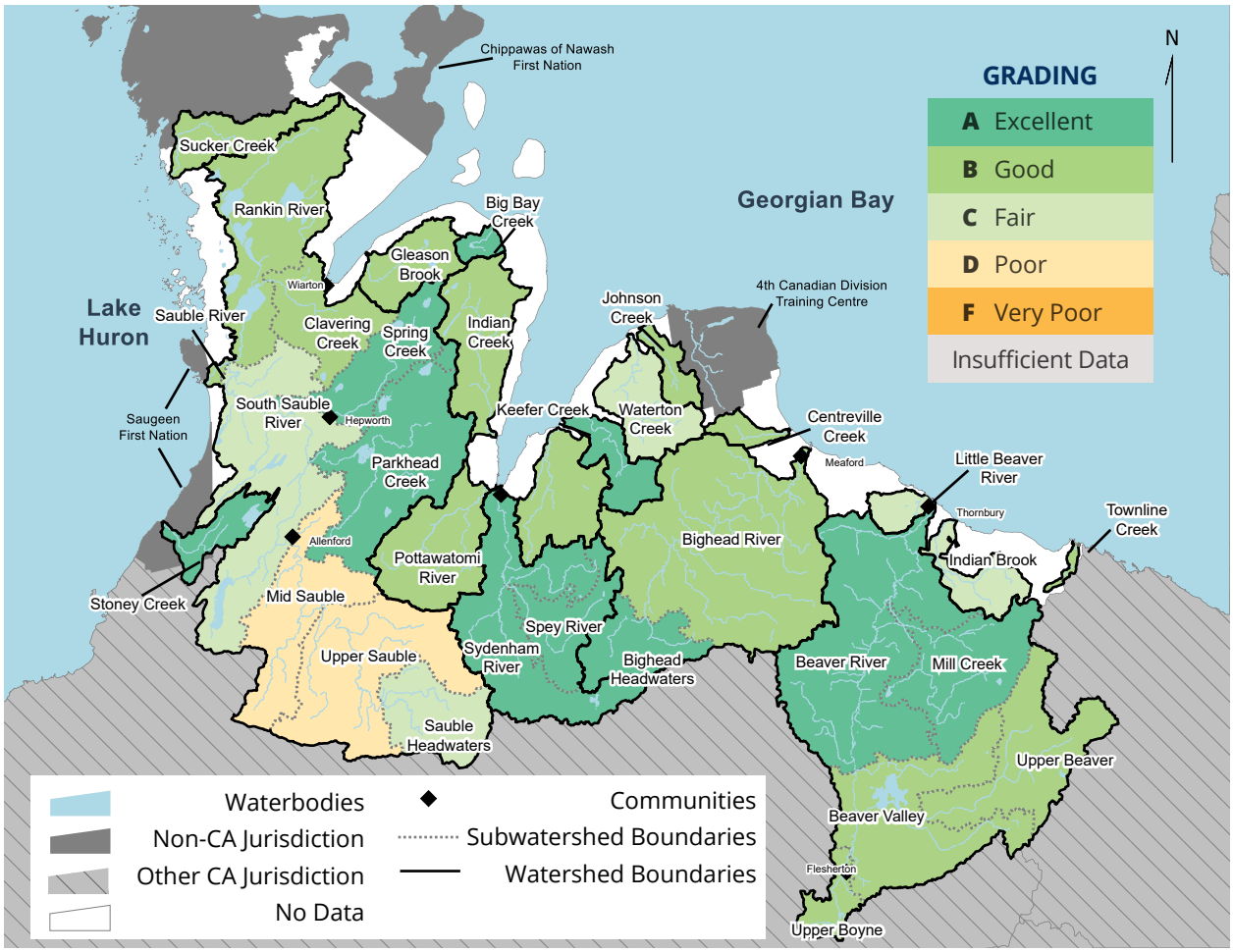
FOREST CONDITIONS

Geographic Information Systems (GIS) technology was used to assess forest conditions in the watersheds. The three indicators measured were percentage of forest cover, forest interior, and riparian cover (forest cover within 30 m of watercourse). Forest interior provides habitat for many species that don't survive in smaller treed areas and riparian cover cools water for native fish, prevents erosion, and reduces contaminants entering streams.

What Did We Find?

- Forest conditions grades are generally good to excellent.
- In areas with more intensive agriculture, forest condition grades are lower.
- Forest cover grades take time to improve because after trees are planted it can take several years before they form a measurable tree canopy.



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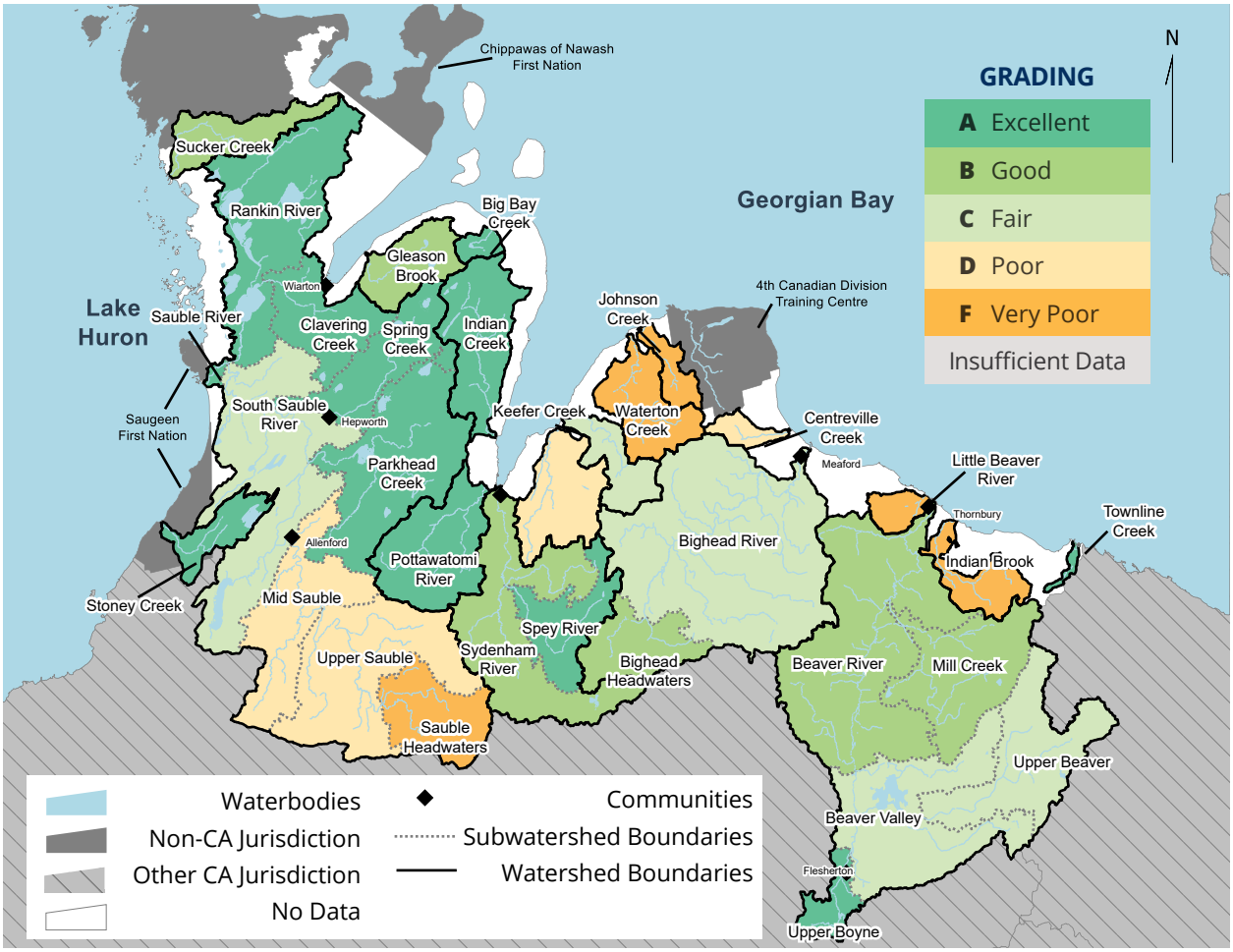
WETLAND CONDITIONS

The percentage of wetland cover was measured using Geographic Information Systems (GIS) technology. Wetlands provide many ecosystem services including improving water quality by filtering runoff, assisting with flood control by storing water, and maintaining hydrological functions during dry periods. Wetlands are also home to many species of plants and animals.

What Did We Find?

- Most of the larger watersheds score very well.
- Some of the smaller watersheds with higher elevation have poor wetland coverage.
- Drainage improvements for agriculture likely has the greatest impact on wetland coverage.
- It is important to maintain our current wetlands because it is very difficult to increase wetland coverage once it is gone.



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OUR WATERSHED GRADES

Watershed Name	Subwatershed Name	Forest Conditions Grade	Wetland Conditions Grade	Surface Water Grade
Big Bay Creek	Big Bay Creek	A	A	B
Beaver River	Beaver River	A	B	A
Beaver River	Beaver Valley	B	C	A
Beaver River	Upper Beaver	B	C	A
Beaver River	Mill Creek	A	B	A
Beaver River	Upper Boyne	B	A	A
Bighead River	Bighead Headwaters	A	B	A
Bighead River	Bighead River	B	C	B
Bothwell Creek	Bothwell Creek	B	D	B
Centreville Creek	Centreville Creek	B	D	B
Gleason Brook	Gleason Brook	B	B	A
Indian Brook	Indian Brook	C	F	A
Indian Creek	Indian Creek	B	A	A
Johnson Creek	Johnson Creek	B	F	N/A
Keefer Creek	Keefer Creek	A	C	B
Little Beaver River	Little Beaver River	C	F	B
Pottawatomi River	Pottawatomi River	B	A	B
Sauble River	South Sauble River	C	C	B
Sauble River	Sauble River	B	A	B
Sauble River	Mid Sauble	D	D	C
Sauble River	Upper Sauble	D	D	C
Sauble River	Sauble Headwaters	C	F	B
Sauble River	Parkhead Creek	A	A	A
Sauble River	Clavering Creek	B	A	A
Sauble River	Spring Creek	A	A	A
Sauble River	Rankin River	B	A	A
Stoney Creek	Stoney Creek	A	A	B
Sucker Creek	Sucker Creek	B	B	C
Sydenham River	Sydenham River	A	B	B
Sydenham River	Spey River	A	A	A
Townline Creek	Townline Creek	B	A	C
Waterton Creek	Waterton Creek	C	F	B

OUR WATERSHED FEATURES

The Grey Sauble Watershed

Grey Sauble Conservation has a unique watershed jurisdiction that encompasses approximately 4000 sq km and consists of 5 major watersheds and many smaller watersheds that outlet directly to Lake Huron and Georgian Bay. The watershed includes 185 km of shoreline and spans 8 municipalities:

- City of Owen Sound
- Municipality of Arran-Elderslie
- Municipality of Grey Highlands
- Municipality of Meaford
- The Town of the Blue Mountains
- Town of South Bruce Peninsula
- Township of Chatsworth
- Township of Georgian Bluffs

Unique Topographical Features

The topography of the watershed includes both sandy and rocky beaches, flat agricultural lands, the Niagara Escarpment, rolling hills, and karst features that are characterized by shallow soil over fractured bedrock and underground drainage systems.

WHAT ARE OUR WATERSHED'S KEY ISSUES?

Non-point Source Pollution

- Non-point source pollution comes from many sources throughout the watersheds.
- It occurs when rain or snowmelt runs off fields, streets, or backyards.
- It carries soil particles, fertilizer, and other pollutants into watercourses and lakes.

Watercourses Without Adequate Riparian Cover

- Riparian areas are forest cover within 30 m of watercourses.
- Trees near watercourses keep water temperatures cool for fish habitat and can improve water quality, especially when combined with livestock restriction fencing. Without riparian areas, water temperatures can rise, and more pollutants run off into watercourses.

Limited Resources

- Limited funding and staff resources constrain the programs and services that support watershed health.

WHAT ARE WE DOING?

GSCA Staff Monitor the Health of our Watersheds by Collecting Data on Environmental Indicators

- Surface water samples at 35 locations are collected 8 times each year.
- As part of the Biological Monitoring and Assessment Program (BioMAP), benthic samples from 31 long-term monitoring sites are collected.
- Important water quality and quantity information is collected by volunteers and staff at over 5,000 stream crossings and over 900 sites have been classified by water temperature.

GSCA's Programs and Services Contribute to the Protection and Improvement of Watershed Health

- To date, close to 4.2 million trees have been planted across our watersheds.
- Environmental planning supports development in appropriate areas, reducing impacts.
- We own and manage nearly 30,000 acres of land that enhances the health of our watersheds.
- Landowners and partners have been engaged to help restore and protect natural features and water quality through GSCA's stewardship efforts.
- GSCA staff share information and provide educational opportunities that help participants connect with nature and embed conservation practices into their lives.

HOW CAN WE ENHANCE THE WATERSHED?

What Can You Do?

On the Shore

- Leave a minimum of 1 metre of native vegetation in place. Having a vegetated buffer helps to filter runoff, prevent erosion, maintain water levels, and deter waterfowl.
- Minimize fertilizer use to prevent excess nutrients from entering the lake.
- Learn how to identify and control invasive species.
- Regularly service your septic system.
- Decommission unused wells to prevent contaminants from entering groundwater.

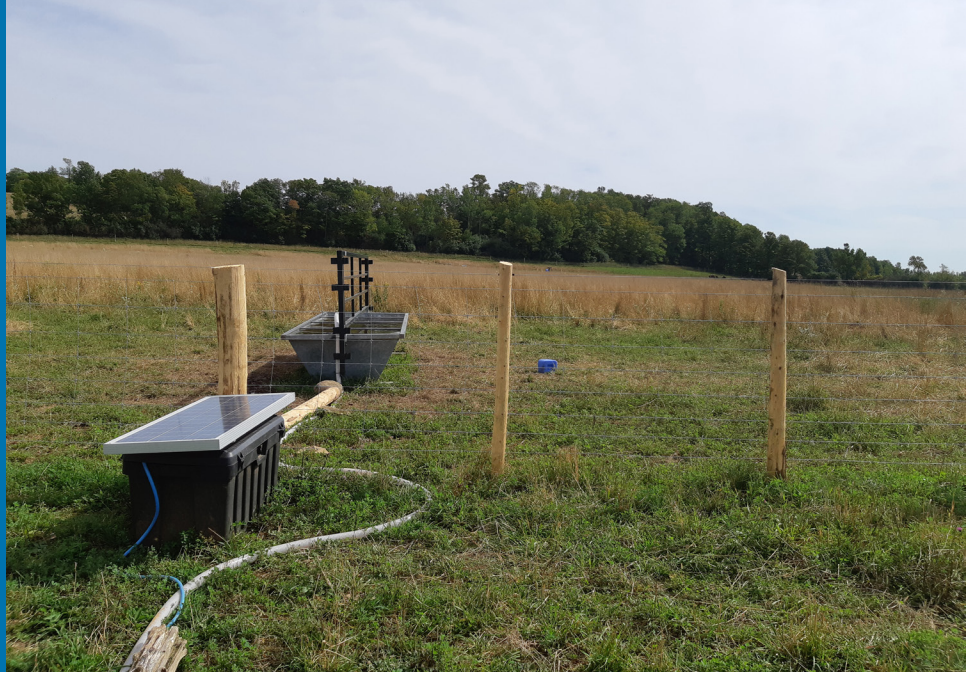
On the Farm

- Improve water quality and habitat by fencing livestock out of streams.
- Maintain a vegetated buffer between crop land and watercourses.
- Plant trees within 30 metre of watercourses to increase beneficial riparian areas.
- Upgrade manure storage and barn eavestroughing to divert clean water.
- Reduce soil erosion through no-till, residue management and cover crops.
- Plant windbreaks to protect your soils.
- Reduce nutrient loss by implementing a nutrient management plan.
- Conserve water and minimize pesticide use as these outlet to local waterways.

In Town

- Leave a minimum of 1 metre of native vegetation along creeks and lakes. Plant native species to protect the shoreline and create habitat.
- Conserve water indoors and collect water outdoors using a rain barrel.
- Increase your land permeability by using rain gardens, mulch, or permeable pavement.
- Minimize fertilizer use to prevent excess nutrients from entering streams.
- Dispose of chemicals properly and do not pour harmful substances down the drain as these outlet to local waterways.

HOW CAN WE ENHANCE THE WATERSHED?



What Can Municipalities and Other Agencies Do?

- Work together with GSCA on consistent planning regulations and adoption of by-laws that will protect watercourses, wetlands, and vegetated riparian buffers.
- Adopt your own environmental sustainability initiatives and community grants.
- Adopt Low Impact Development (LID) practices and promote natural designs (bio-swales, infiltration trenches, permeable pavement) and stormwater retrofits.
- Secure environmentally significant properties, specifically wetlands, shorelands and properties that will connect natural features.
- Ensure appropriate approvals and/or permits are obtained so that the approval authority can monitor for implementation of approval conditions.
- Support local watershed studies and initiatives to monitor water quality and quantity.

Watershed Report Card

Grey Sauble CONSERVATION

Do you have questions not answered by this summary document? Visit www.greysauble.on.ca or contact us for more information:

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