

Kawartha

WATERSHED

Report Card 2013



Kawartha Conservation has prepared this brochure as a summary on the state of our surface water, forests, groundwater, and wetlands.



Member of



Conservation
ONTARIO
Natural Champions

Where Are We?



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

What Does This Report Card Measure?



Surface Water Quality



Forest Conditions



Groundwater Quality



Wetland Conditions

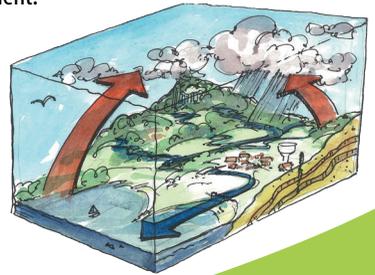
Why Measure?

The data used in this report card was collected between 2007 and 2011. Ongoing measuring helps us better understand our watershed. It helps us focus our efforts where they are needed most and track progress. It also helps us identify healthy and ecologically important areas that require protection or enhancement.

What is a Watershed?

A watershed is an area of land drained by a river or stream. Similar to the branch of a tree, creeks empty into streams, which then empty into larger streams, eventually forming one main trunk.

Within this system, everything is connected to everything else. In other words, actions which take place at the top of the system affects those downstream.



The standards used in this report card were developed by Conservation Authorities to ensure consistent reporting across the Province of Ontario and are intended to provide information to protect, enhance, and improve the precious resources that surround us.

Please visit KawarthaConservation.com/reportcard for more detailed watershed report card information.



Surface Water Quality

Our actions on the land determine the quality of our water. Surface water moves across our landscape, through rivers and into lakes. It can be affected by fertilizers, pesticides, erosion, oils, metals, and chemicals.



Overall, our watershed receives a C for surface water quality. While many of the lakes received a B, several subwatersheds received C grades. The lake grade is indicated by a letter on the lake, and the subwatershed by the colour.

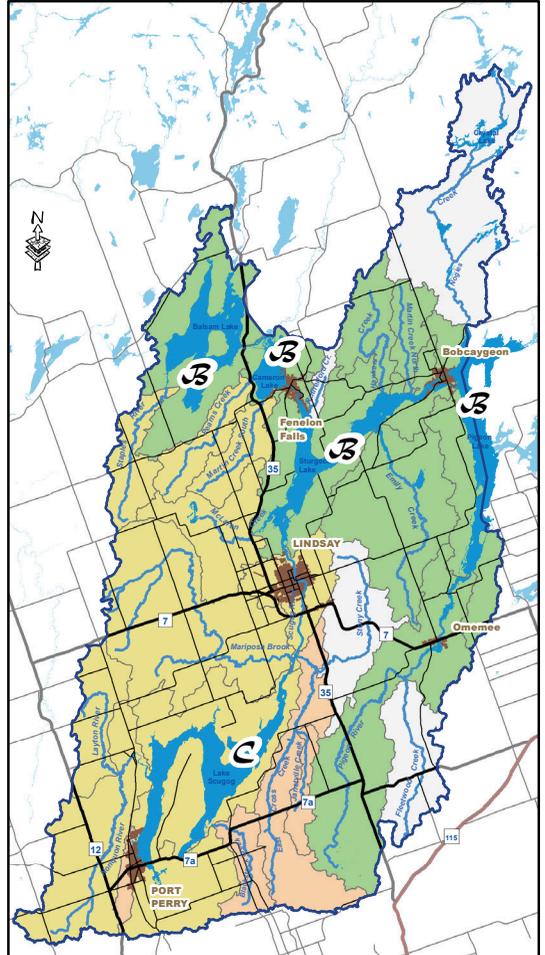
Water quality typically decreases in areas that have more human activity, such as agriculture and areas with urban development. Landowners are encouraged to take advantage of programs such as tree planting, stream restoration, erosion prevention, and shoreline protection, to help improve the areas with lower grades.

In areas with higher grades, landowners are encouraged to undertake actions that will help maintain good water quality.

Surface water quality grades were determined by averaging Total Phosphorous and Benthic Macroinvertebrate Index scores.

Phosphorus is commonly found in fertilizers, sewage, soaps, detergents, animal waste, and naturally in soil. Too much can lead to the excessive growth of algae and aquatic plants.

Benthic Macroinvertebrates are small aquatic organisms that live in the bottom of streams, ponds, lakes, and wetlands. Changes in these communities can reflect pollutant levels in water, making them good indicators of surface water quality.



Grading

A Excellent

B Good

C Fair

D Poor

F Very Poor

Insufficient Data





Forest Conditions



Healthy forests provide many important functions on our landscape. They improve air quality, surface and ground water quality, and provide wildlife habitat. Large, connected forests are important for maintaining good conditions.

The amount of forest cover across the watershed varies, resulting in grades from A to D, with an overall grade of C.

There is much less cover in agricultural and urban areas, where the forests are often fragmented and have little, to no, forest interior.

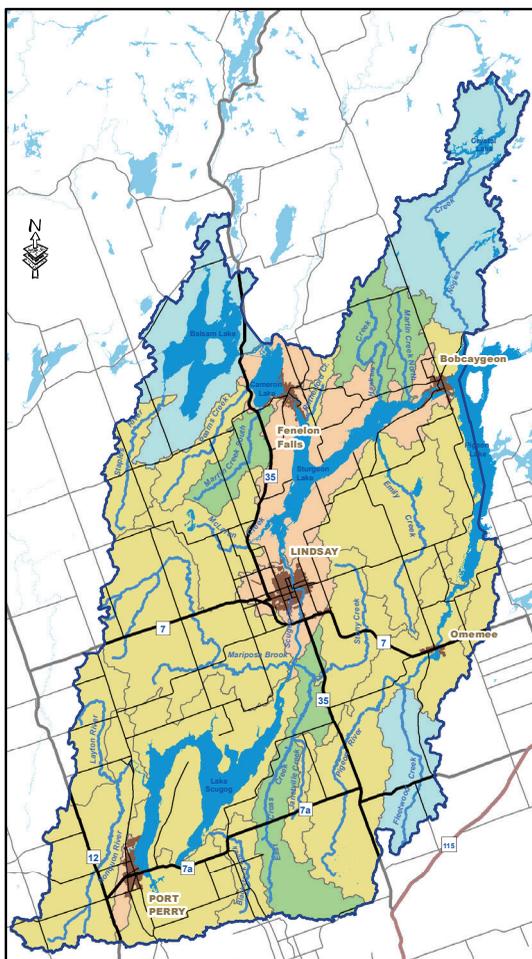
Forest interior is the area remaining after a 100 metre border has been subtracted from any edge or defined break in the forest. The interior is high in biodiversity and supports sensitive plant and animal species that cannot thrive elsewhere.

Forests and other naturally vegetated areas help improve water quality by reducing erosion and filtering the water that passes through them. They also help regenerate groundwater resources that supply cool, clean water to our wells, creeks, and lakes.

In areas with forest cover, landowners are encouraged to manage them for health. This can include protecting them from invasive species and selectively harvesting trees. There are some great programs and information available from the Ontario Forestry Association, Trees Ontario, and Ontario Federation of Anglers and Hunters.

Landowners in areas with poor cover are encouraged to plant more trees through programs such as our annual bulk tree seedling distribution. There are a range of species available, and all are suited to this area.

Visit KawarthaConservation.com/reportcard for more details on all of the grades.



Grading

A Excellent

B Good

C Fair

D Poor

F Very Poor





Groundwater Quality



Groundwater provides well water for homes and municipal drinking water systems, and maintains water levels in our rivers and streams. Keeping our groundwater clean and safe to drink is an important priority for us all.

Groundwater grades are based on data from Provincial Groundwater Monitoring Network wells. The results from individual wells do not represent groundwater quality across the entire watershed, but only the individual aquifers at the well sites.

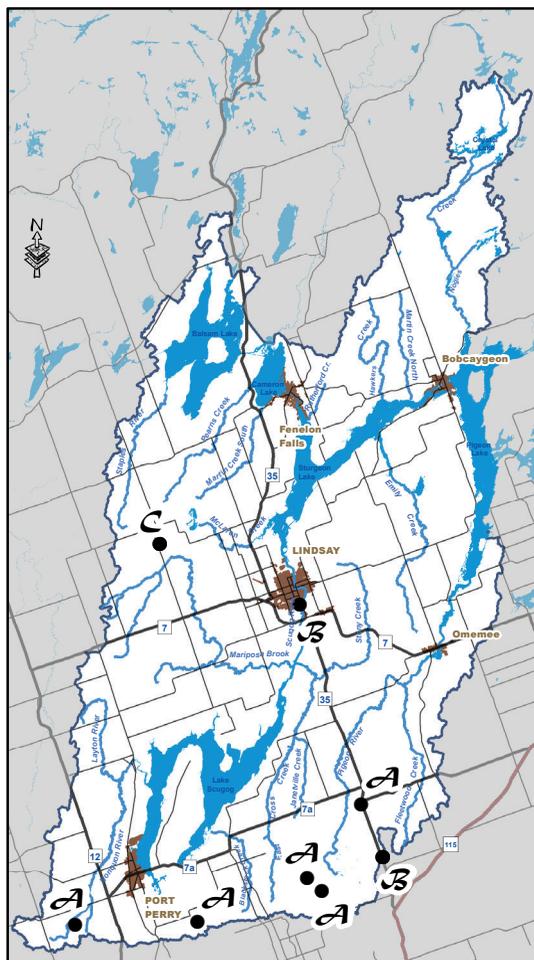
We found all of the wells to have low levels of nitrogen, and a few that have high levels of chloride. As a result, the grades range from A to C.

Chloride is a chemical found naturally in soil, and is also in products such as road salt. The application of road salt is a contributing factor to increased chloride levels in groundwater, which can threaten the health of all living organisms, including humans.

Nitrogen occurs naturally in soil but can also be found in animal waste, fertilizers, and septic sewage. If high levels seep into groundwater, it can contaminate drinking water and pose a health risk to humans and other living organisms.

Local groundwater can vary considerably, especially with shallow or dug wells. It can be impacted by the soil type and the thickness of the soil layer that surrounds your well. Be sure to have your well tested by the Health Unit at least twice annually, regularly pump your septic system and upgrade it if needed.

Any old, unused wells should be decommissioned by a professional. These wells can provide a direct conduit to your aquifer for bacteria, salt, and other surface contaminants, and need to be properly plugged by a licensed well contractor.





Wetland Conditions



Wetlands are the workhorses on our landscape. They clean our water by filtering out contaminants and nutrients, reduce flooding, and have more biodiversity than any other ecosystem type!

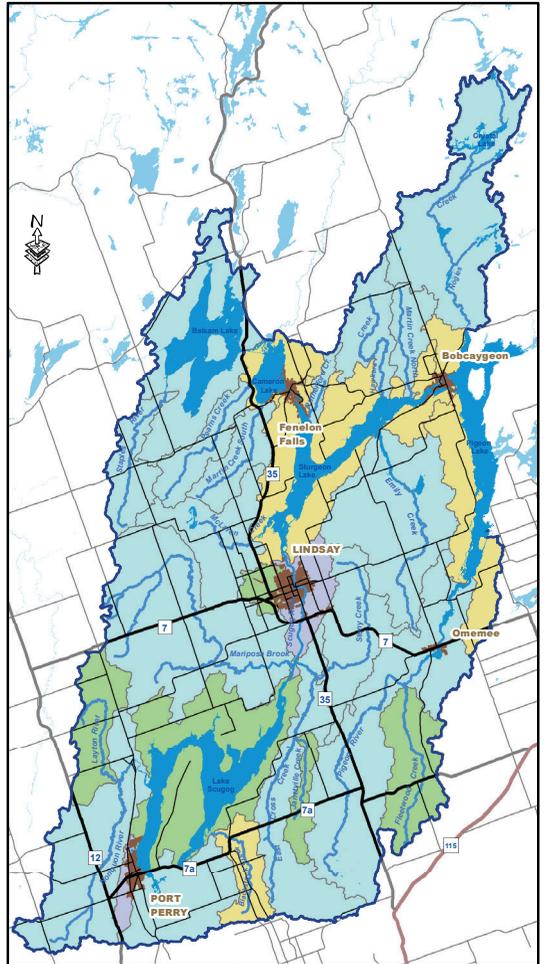
There is excellent wetland cover in many parts of the watershed, resulting in an overall grade of A! Within our 2,563 km² watershed, over 359 km² are wetlands (approximately 14% of the total area). This includes 55 Provincially Significant Wetlands and 49 Locally Significant Wetlands.

Wetlands provide many important ecological services that help keep our environment and communities healthy, and local economy vibrant. Some of their main functions include the following:

- Improve water quality in lakes and rivers
- Reduce flooding and flood damage
- Stop erosion
- Recharge groundwater
- Provide wildlife habitat
- Keep carbon dioxide out of the atmosphere.

In our watershed, forested swamps are the most common type of wetland. They are seasonally or permanently flooded, and are highly productive, with high levels of oxygen, nutrients, and decomposers.

It's important to protect our wetlands, which are under pressure from increasing urban development and agricultural production.



Visit KawarthaConservation.com/reportcard for more details on all of the grades.

Grading

A	Excellent
B	Good
C	Fair
D	Poor
F	Very Poor



How we can assist you

Kawartha Conservation promotes the responsible care of natural resources on a watershed basis. We offer a range of programs and services to help you protect and enhance the health of your watershed. Take advantage of one of our programs today!

Blue Canoe Program – If you have a shoreline property, we will assess your property and develop personalized recommendations on how you can enhance your property and help protect water quality. This program is supported by the RBC Blue Water Project.

Urban Stewardship Program – We provide a range of resources to help residents and businesses in town minimize the amount of nutrients and other contaminants entering the stormwater system, and eventually local rivers and lakes.

Shoreline Protection Program – We help you protect your waterfront against shoreline issues such as water quality, erosion, ice damage, and nuisance Canada Geese, while contributing to healthier lakes and rivers. Call us today for free advice!

Scugog WATER Fund – We provide funding for your stewardship projects in the Lake Scugog watershed within our jurisdiction in Durham Region. Visit our website for details about eligibility and how to apply.

Lake Management Planning – With a wide range of partners, we undertake detailed research that is required to develop plans that enhance the health and economic sustainability of lakes and rivers.

Tree Seedling Distribution – We distribute high quality tree seedlings in bulk, on a first come, first-served basis by pre-ordering. All of the species available are suitable to this region.



What You Can Do

Be a Watershed Steward!

Here are some ways that you can enhance your property, protect your health, and protect the health of our watershed.

- Protect water quality by eliminating fertilizer use on lawns and gardens. This helps minimize nuisance aquatic plant growth that results from nutrient-rich storm water runoff.
- Leave a 3 metre, or wider, buffer of natural vegetation along waterfronts and stream banks to filter runoff and provide wildlife habitat. Adding native plants that have deep roots can help prevent erosion and add wildlife diversity.
- Make sure your well and/or septic system is properly maintained. Remember to have your well water tested at least once a year. A free service is provided by your local Health Unit!
- Control invasive plants and shrubs such as Buckthorn, Dog Strangling Vine, and Garlic Mustard to help maintain species diversity.
- Set aside areas for reforestation. Forests filter water, prevent erosion, and play a role in recharging aquifers.
- Practice lot-level stormwater management. This includes reducing hard-surfaces, capturing rainwater, and increasing vegetation cover on your urban or shoreline property.

*Visit our website
for additional tips
and information!*



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