

Quinte Conservation

WATERSHED Report Card 2023



Watershed Report Card

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



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. This Watershed Report Card summarizes data collected from 2017 - 2021 and measures:



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.



Surface water quality grades are calculated using concentrations of phosphorus and the health of the benthic invertebrate communities at Provincial Water Quality Monitoring and Quinte Conservation monitoring stations.

What did we find?

- The majority of the Quinte Watershed is in good to excellent condition, with Prince Edward Region Watershed scoring fair.
- Watersheds with the highest surface water quality grades have a greater abundance of forests and wetlands. Conversely, areas with lower water quality historically have seen higher development due to urbanization and agricultural practices.
- High Phosphorus levels can cause excessive plant growth in streams and nuisance algae blooms on lakes.

GRADING

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





Quinte Conservation FOREST CONDITIONS

GRADE

A

Environment Canada recommends a minimum of 30% forest cover, 10% interior, and 50% riparian forest cover. The percentages of forest cover, forest interior (100m from forest edge), and riparian cover (30m adjacent to waterbody/course) were measured with Geographic Information Systems.

What did we find?

- Approximately 64% of the Moira River Watershed is forested and 19% is forest interior. Forest covers approximately 61% of the riparian areas in this watershed.
- Approximately 53% of the Napanee Region Watershed is forested and 16% is forest interior. Forest covers approximately 50% of the riparian areas in this watershed.
- Approximately 32% of the Prince Edward Region Watershed is forested and 7% is forest interior. Forest covers approximately 44% of the riparian areas in this watershed.

GRADING

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F	Very Poor
	Insufficient Data





Quinte Conservation GROUNDWATER QUALITY



Concentrations of nitrate and chloride were measured using 10 years of data, at 14 Provincial Groundwater Monitoring Wells.

Learn about groundwater at QuinteSourceWater.ca

What did we find?

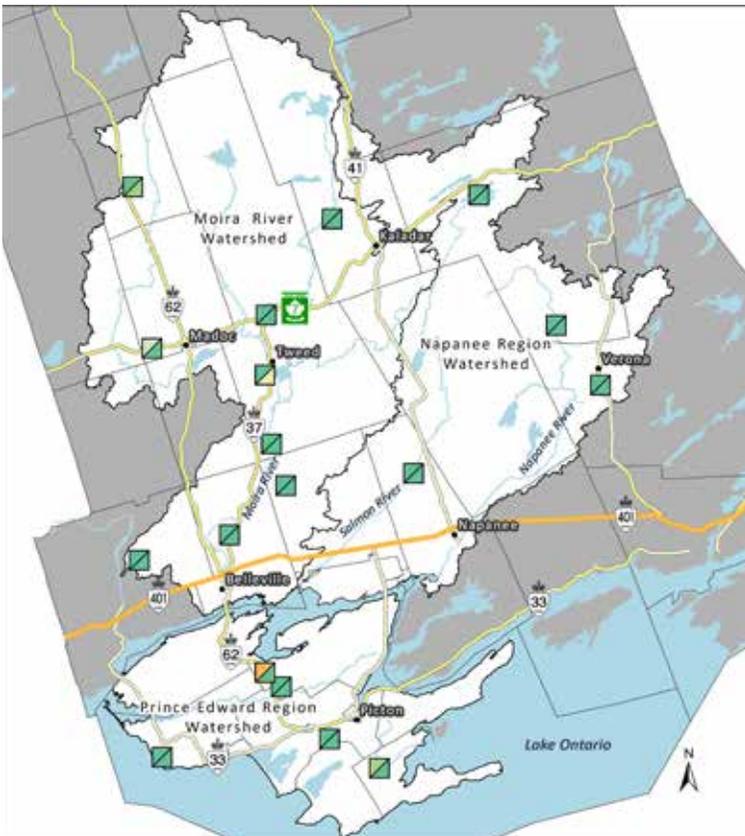
- All of the groundwater monitoring wells met the Ontario Drinking Water Standard for nitrate and nitrite concentrations.
- All except one of the groundwater monitoring wells met the Ontario Drinking Standard for chloride.
- Private wells may vary significantly from that of proximal wells in their drinking water quality, and should be inspected regularly.

MONITORING WELL

Chloride Nitrate

GRADING

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





Quinte Conservation WETLAND COVER

GRADE

A

The percentage of wetland cover was measured with Geographic Information Systems.

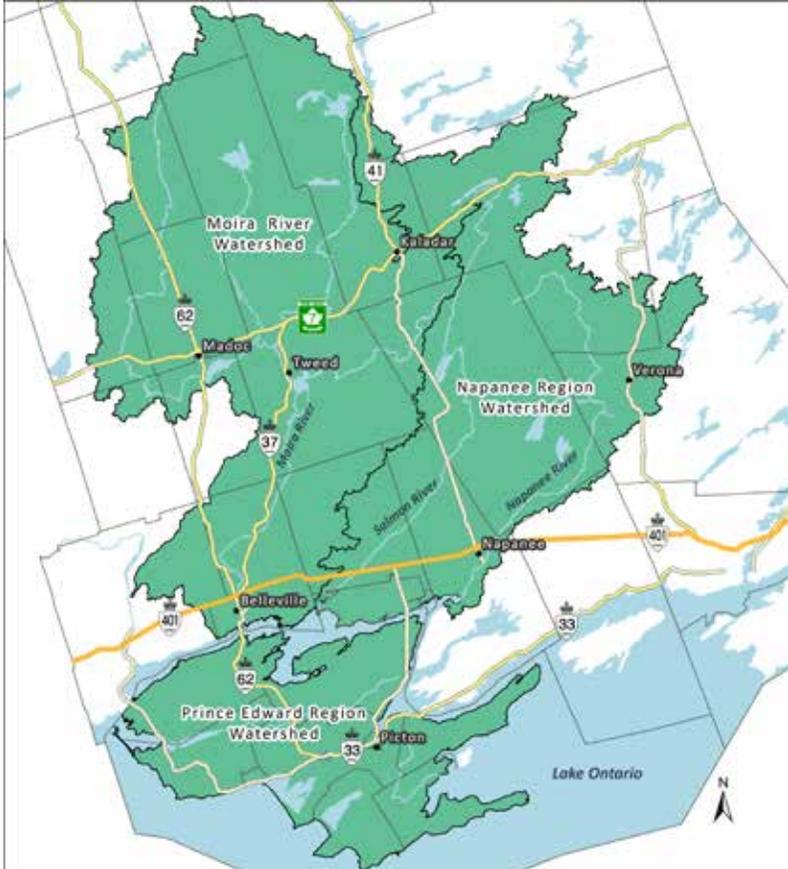
What did we find?

- Approximately 15% of the Moira River Watershed is covered by wetlands.
- Approximately 18% of the Napanee Region Watershed is covered by wetlands.
- Approximately 19% of the Prince Edward Region Watershed is covered by wetlands.

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

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WHAT IS OUR WATERSHED'S KEY ISSUE?



Non-point source pollution:

Occurs when rain or snowmelt runs off fields, streets, or backyards carrying soil particles and pollutants to waterbodies and groundwater.

What actions are we taking to reduce non-point source pollution?

Quinte Conservation provides expertise and works with municipalities and watershed residents to:

- Safely develop near waterways and wetlands.
- Protect sources of water.
- Naturalize shorelines and waterways to reduce erosion and runoff.
- Monitor the quality and quantity of ground and surface water.
- Provide education programs to help foster environmental stewards.
- Assists with climate change initiatives including native plantings, climate change stations, flood and drought management studies, workshops, monitoring, and landowner education.

What local actions have been taken?

Community-based watershed plans and studies have highlighted actions for local agencies and individuals.

Visit our Reports and Studies page under the Watershed Management tab at QuinteConservation.ca to learn more about:

- Lake studies for Stoco, East and West Lake, and Wellers Bay
- Quinte's Drought Management Plan
- The Bay of Quinte and Lake Ontario Shoreline Management Plan
- Updated Floodplain mapping

The Quinte Source Protection Committee is in the process of updating the Quinte Region Source Protection Plan to align with updated science and guiding technical rules, as well as to address any data gap or policy inefficiencies discovered during implementation of source protection plan policies.

HOW CAN WE ENHANCE THE WATERSHED?



What can you do?

- Plant native trees, shrubs, wildflowers, and grasses along shorelines and waterways.
- Leave or enhance natural buffers along waterways.
- Inspect and pump your septic system every 3 to 5 years.
- Dispose of household hazardous waste properly through your local hazardous waste depot.
- Decommission unused wells to stop contaminants from entering groundwater.
- Seek ways to conserve and filter water, such as using rain barrels or rain gardens.

What can your community do?

- Encourage the use of low impact development technologies in new development and re-development.
- Direct development away from environmentally significant areas.
- Support local initiatives to monitor water quality and quantity.
- Protect wetlands, forests, and connect existing forests where possible.
- Perform environmentally conscious agricultural practices, such as fencing livestock away from waterways, apply nutrients at rates and times that optimize plant/crop uptake, prevent erosion through planting cover crops, and maintaining crop residue.



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