



FAQS

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What are the Conservation Authority Watershed Report Cards?

On March 18, 2013 Conservation Authorities began launching a new series of standardized watershed report cards which will provide us with a picture on the health of a number of Ontario watersheds.

The three resource categories measured and reported on in the report cards are Surface Water Quality, Forest Conditions, and Groundwater Quality with a set of indicators for each category. The current standard guidelines were developed with input from Conservation Authorities and other federal/provincial agencies. These guidelines update the previous 2003 Conservation Authority Watershed Reporting Guidelines.

Watershed reporting helps to communicate baseline information on watershed health, identify local and regional differences, and show us where to target our efforts for the best impact. The report cards provide scientific information to local decision-makers and others across Ontario in order to improve local knowledge.

The watershed report cards are designed to be an ongoing product and will report once every five years. Many Conservation Authorities will provide watershed updates and ongoing reports in between the report cards.

What is the purpose of the Watershed Report Cards?

Management tool to target efforts and measure results

The purpose of the watershed report cards is to report on the health of Ontario's watersheds through the use of key environmental indicators and to allow Conservation Authorities and their partners to better target programs and measure environmental change. They are a management and evaluation tool for Conservation Authorities, municipalities, and other watershed practitioners and agencies.

Communicate local conditions to people and watershed practitioners

Watershed report cards are a successful way to deliver a vast amount of technical information in a readily understandable and interesting way. Municipalities, agencies and other stakeholders can use the outcomes of the report cards to assist in their programs.

The watershed report cards communicate an evaluation of local watershed health, provide important technical data and analysis; as well as provide a roadmap for Conservation Authorities and their partners to address local environmental conditions.

How do I find out if there is a watershed report card for where I live?

To find out if your Conservation Authority has produced a watershed report card or how they are monitoring local watersheds, visit www.watershedcheckup.ca and click our interactive map which will take you to the local Conservation Authority's website.

Not all Conservation Authorities are launching their report cards at this time. Some require more time and resources to collect and analyze the data and some are using other means to report on local conditions.

All Conservation Authorities monitor local conditions in order to inform watershed planning and programs.

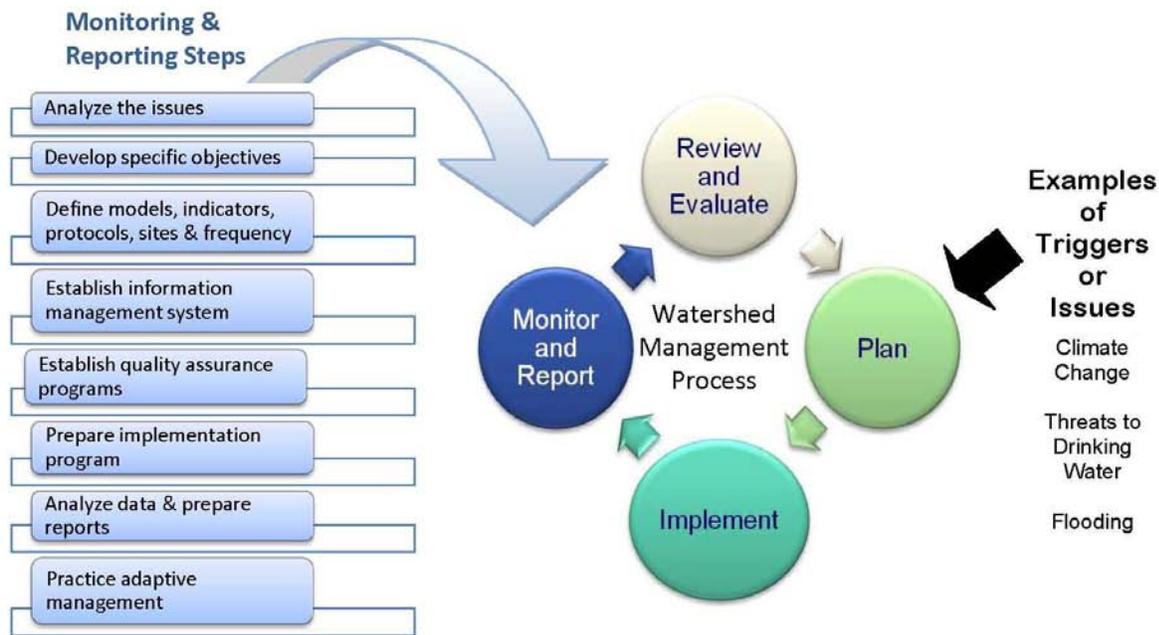
Why do we need to monitor our local environment and how do Conservation Authorities use the results?

Watershed monitoring helps us to identify issues, project future conditions, focus natural resource management actions where they are needed most and track progress over time.

Healthy land and water resources ensure safe drinking water and resilient forests, wetlands and wildlife, enabling us to adapt more easily to climate change and other stressors on our environment.

Ontario's 36 Conservation Authorities monitor the health of natural resources in Ontario's watersheds as part of their watershed management approach.

A watershed management approach is a cycle of identifying the issue (e.g. protecting drinking water sources), development of the plan, implementation, monitoring, and updating the plan.



Building the Data – Why are there Differences Between Conservation Authorities?

Conservation Authorities report on the data that they have been able to collect.

In some cases, due to budgetary constraints or differing local priorities, some Conservation Authorities may not have all the required data needed to report according to Conservation Ontario's guidelines.

- Limited financial and staffing resources at smaller Conservation Authorities may prevent monitoring stations or sites to be established as widely as they would like or restrict the ability to analyze data.
- The Conservation Authority may not have been collecting data for the length of time required to adequately report;
- There may be limited GIS capability
- Early data may have been collected differently that is required by current watershed reporting standards

Conservation Authorities are working, often with the help of partners such as government, agencies, or private firms to improve their monitoring resources.

What are Conservation Authority Watershed Report Cards reporting on?

The standardized components that make up Conservation Authority Watershed Report Cards (2013) include: Scale, Resource Categories and Indicators, Grading, Frequency, and Communications. All the Conservation Authority watershed report cards:

- Report on a subwatershed scale
- Use three resource indicators: Surface Water Quality, Forest Conditions, and Groundwater Quality
- Use consistent grading: A - Excellent; B - Good; C - Fair; D - Poor; and F – Very Poor
- Use consistent criteria within each resource category and indicator
- Provide the local watershed report cards and related information on their own websites. Conservation Ontario also provides access to these report cards from www.conservationontario.ca
- Report once every five years starting in 2013. Using five year blocks of data minimizes seasonal variation and provides sufficient data for reliable summary statistics for surface water and groundwater samples. The five year step also coincides with federal census data which can be incorporated into the report cards.

Given the long time period between actual report cards, Conservation Authorities may also choose to provide more frequent updates or focus on specific issues in between report cards.

Conservation Authorities rely on Conservation Ontario's *Guide to Developing Conservation Authority Watershed Report Cards* (2011) developed by Conservation Authority working groups in consultation with all Conservation Authorities and provincial/federal agency representatives.

We recognize that other factors that impact environmental health are also important and are often reported through other means. Some Conservation Authorities have chosen to add additional resource categories such as wetlands however, standardized reporting indicators have not been developed for any other indicators at this time.

It's expected that the Conservation Authority watershed report cards could develop to include other resource categories and/or indicators depending on the development of additional monitoring partnerships or needs.

How have Conservation Authorities changed the way they are reporting on Ontario watersheds?

Conservation Authorities have been monitoring and reporting on the state of Ontario's watersheds for many years. As the public's need for information increased, in 2003, the Provincial government sponsored a pilot project which enabled Conservation Authorities to establish initial guidelines for Conservation Authorities. As a result, many Conservation Authorities began to produce local watershed report cards.

A 2009 review of the Conservation Authority watershed report cards revealed some inconsistencies in the way that the data was being collected, analyzed, and reported and, while it still provided valuable information, the difference in methods prevented broader application of this important information.

As a result, from 2009-2011, Conservation Authorities and Conservation Ontario worked together to update the guidelines and employ a standardized set of indicators and communication guidance.

The watershed report cards released in 2013 by Conservation Authorities are based on standardized indicators, grading, and analysis and will be released once every five years.

Conservation Authorities will continue to build on their knowledge and understanding of the state of Ontario's watersheds and how they are changing by sustaining and expanding Conservation Authority monitoring programs.

How does the health of our environment affect our own health?

We rely on clean air, safe drinking water, protection from flooding, and an environment able to adapt to the growing impacts of climate change. As well, healthy green spaces provide us with enjoyment and exercise with many of us visiting parks, beaches, and trails on a daily basis.

In addition to the important ecological and economic services that our natural world provides, it also plays a significant role in promoting healthy bodies and minds. Trees alone help to reduce smog and pollution in our cities by filtering out many airborne pollutants that have a negative impact on our health, such as carbon dioxide, carbon monoxide, lead, nitrogen dioxide, ozone, sulphur dioxide and intercepting particulates. These pollutants have been linked to heart disease, respiratory illnesses, diabetes and cancer (*A Healthy Dose of Green*, Trees Ontario 2012).

Numerous studies have shown that there is a direct correlation between the presence of trees and a decline in stress levels. Contact with nature can have a powerful therapeutic effect by reducing the stress response of the body and the mind thereby helping to improve both physical and mental abilities. (*A Healthy Dose of Green*, Trees Ontario, 2012)

How do Conservation Authorities contribute to healthy watersheds?

Conservation Authority watershed management programs and services help to improve the health of local ecosystems which directly supports our own health by ensuring safe and sustainable water resources, improved air quality, healthy wetlands and agricultural lands, important urban and rural forests, protection from flooding and erosion, as well as enjoyable recreational lands such as conservation areas.

Conservation Authorities ensure the conservation, restoration and responsible management of Ontario's water, land and natural habitats through programs that balance human, environmental, and economic interests. Specifically, they:

- Plan and deliver programs and initiatives that protect, manage, and restore ecological features and functions;
- Offer technical expertise in watershed management planning and implementation, watershed stewardship, and source protection planning;
- Collect data on local watershed conditions and analyze data;
- Map local watershed water sources and threats;
- Facilitate local partnerships to collectively address issues and conditions;

- Deliver fun and informative environmental education and outdoor recreation programs to over 485,000 students in 4,000 schools.

Rather than focusing piecemeal on individual problems, Conservation Authorities consider how all our activities impact the natural functions and processes of the watershed. This helps the Conservation Authorities to target problems and develop practical solutions to minimize negative environmental impacts and ensure healthier communities.

For more information about the types of programs Conservation Authorities deliver:
<http://www.conservationontario.ca/about/programs.html>

How is the environment connected to Ontario’s economy?

Ontario’s water and land resources and natural systems provide important ecological, economic and societal benefits and should be protected. Forests, water resources, wetlands, soils, plants and animals are all necessary to produce goods and services such as clean sustainable water supplies, clean air, food, fuel, energy and healthy green spaces.



Economically, our environment helps to produce energy, supplies water to industry and individual households, contributes to tourism, timber, fisheries and recreational industries, provides food, fuel and much, much more. Clearly, our environment plays a direct and important role in rural and urban economies.

Threats to Ontario’s water and land resources such as urbanization and climate change are significant and growing larger which impacts on the resilience of our natural environment. Managing impacts on natural ecosystems is the key to ensuring sustainable resources for drinking water, agricultural production, municipal needs, and industrial uses. Keeping water clean and sustainable also requires ensuring healthy land resources needed to protect water quality and quantity.

How are Ontario’s watersheds impacted by climate change?

Climate change has been identified as the leading threat to healthy ecosystems around the world. The relationship between climate change and our environment is closely interconnected: climate change seriously threatens our ecosystems yet a healthy and sustainable environment can help us to adapt to climate change impacts.

Some of the impacts that Conservation Authorities have already identified and are responding to include:

- threats to water quality and supply
- rising temperatures and changing precipitation patterns which create more drought conditions and more frequent severe weather

- higher intensity and longer rainfall events which is leads increased flood and erosion problems
- longer ice free periods on lakes, increased lake effect snow
- more rapid snow melts
- more frequent and prolonged droughts
- longer growing season requiring increased demand for irrigation
- degraded biodiversity
- increased plant growth in lakes, rivers, and streams

The effect of these impacts can be seen on increased costly flooding and erosion which threatens local infrastructure, reduced flow in rivers, lakes, streams and groundwater, diminished cold water fisheries, wetlands and marshes, poorer water quality and greater costs required to treat water, and increased competition for water supplies

As the general public, we notice more water bans, boil water advisories, increased property damage from flooding and erosion, higher insurance costs, damage to driveways, shorter winter season, more beach closings due to poor water quality, and basement flooding.

Conservation Authorities have long recognized the importance of the role that our environment plays for climate change adaptation and are already working to address the increasing impacts of climate change on Ontario's water and other biodiversity.

The Conservation Authority watershed report cards enable us to monitor local conditions in Ontario's watersheds and then work with others to plan and deliver programs to adapt to the increasing impacts of climate change. Programs such as stormwater management, low impact development, habitat restoration and protection, tree and shrub planting, and rural water quality programs help us to adapt to changing conditions in order to protect the health of our natural systems and ourselves.

How can we build local watershed resiliency with stewardship programs?

Stewardship initiatives such as rural water quality programs, tree and shrub planting, agricultural best management practices, green infrastructure, backyard improvements, and wildlife habitat protection and restoration are often a simple and cost effective way to help build resiliency in our watersheds. Through stewardship, we can

- Protect and restore important wetlands and forests to prevent flooding and erosion, store excess water during intense rainfalls and capture carbon emissions;
- Rehabilitate and restore vegetation along river courses and lakeshores in order to help manage flooding, reduce the flow of contaminated sediment, and improve water quality;
- Conserve water and keep water flowing in the water cycle by using best management practices and watershed planning in both urban and rural watersheds;
- Protect urban and rural green spaces for residents to enjoy and to help cool our air;
- Prevent or reduce the impacts of drought and improve soil supporting healthy farms and agriculturally related industries;
- Maintain important green corridors, and natural habitats for birds, fish, and animals;

- Prevent invasive species from impacting native plants, animals, birds, and fish.
- Prevent the loss of important native plant and animal species by providing healthy habitats.

How do Conservation Authorities get this work done in local Ontario watersheds?

Conservation Authorities work closely with community groups, government, other agencies, and landowners to plant trees, rehabilitate and restore ecosystems, and improve water quality. Through many local, provincial and federal initiatives such as the Canada-Ontario agreement, Great Lakes Water Quality Agreement, and Species at Risk programs they also identify and track Ontario's biodiversity in a wide range of monitoring and reporting programs.

Important nongovernment and government partners include: Trees Ontario, Ontario Soil and Crop Improvement Association, Carolinian Canada, Ministries of Natural Resources, Environment, and Agriculture and Rural Affairs, Fisheries and Oceans Canada, Ducks Unlimited Canada, Trout Unlimited Canada, Oak Ridges Moraine Foundation, Greenbelt Foundation, Ontario Land Trusts, Hiking and Trail associations, Ontario Federation of Agriculture, local municipalities across the province, landowners, and many, many more.