Conservation ONTARIO
Natural Champions

WATERSHED REPORTING:
Improving Public Access to Information

Clean and plentiful water supplies are among the most important natural resources. As the population grows and development intensifies, the challenge to maintain high quality and quantities of water has grown in scope and complexity. The Ontario government is working with many partners including conservation authorities, stewardship councils, farmers, environmental groups, other stakeholders and interested citizens to address these challenges.

From this collaboration, a series of watershed-based demonstration projects were carried out using new and innovative approaches to environmental stewardship. The project reports are intended to assist both practitioners and non-practitioners in applying the results in other local watersheds.

The full reports and fact sheets are available on Conservation Ontario's website.

PHASE I PILOT PROJECTS

www.conservation-ontario.on.ca

OVERVIEW

The Watershed Reporting Pilot Project was designed to develop guidelines for State of the Watershed reporting among Ontario's conservation authorities (CAs). Conservation authorities from across Ontario provided input into the development of "A guide to Watershed Reporting" in an effort to facilitate and standardize the information management process of watershed reporting.

The guide focuses on the use of environmental indicators in measuring watershed health and attempts to balance the public's demand for understandable environmental information with the need to ensure scientific accuracy and confidence in data interpretation.

The intent of the guide is to encourage the consistent reporting of a standardized set of environmental indicators by all conservation authorities and to produce effective and comparable State of the Watershed reports every 5 years.

Regular State of the Watershed reporting is intended to assist in the targeting of rehabilitation and protection programs, improve accountability to stakeholders and support the broader reporting requirements of provincial and federal governments.

Ultimately this product is intended as a guide. Experience will undoubtedly lead to further refinement, but what is proposed here is practical, achievable and useful as a starting point.

WHAT IS WATERSHED REPORTING ?

Public demand for environmental information and a need to demonstrate accountability has led conservation authorities to develop state of the watershed reports. The two main purposes of watershed reporting are:

(a) to serve as a management and evaluation tool for conservation authorities and other resource management agencies; and

(b) to communicate an evaluation of watershed health.

Target audiences for watershed reporting include CA staff and members, municipalities, provincial and federal government, interest groups and the general public.

The three formats that best deliver watershed information to relevant audiences are (i) Detailed Report; (ii) Watershed Report Card(s) and (iii) Web Products.

WHAT IS A WATERSHED REPORT CARD ?

Watershed Report Cards are designed to present understandable environmental information to the broader public. A Watershed Report Card outlines the general state of the forest, surface water and groundwater resources. A summary table on the first page of each Report Card offers a simplified snapshot of current watershed conditions. A grade for each of the three resource categories gives a quick picture of the health of the natural resources.
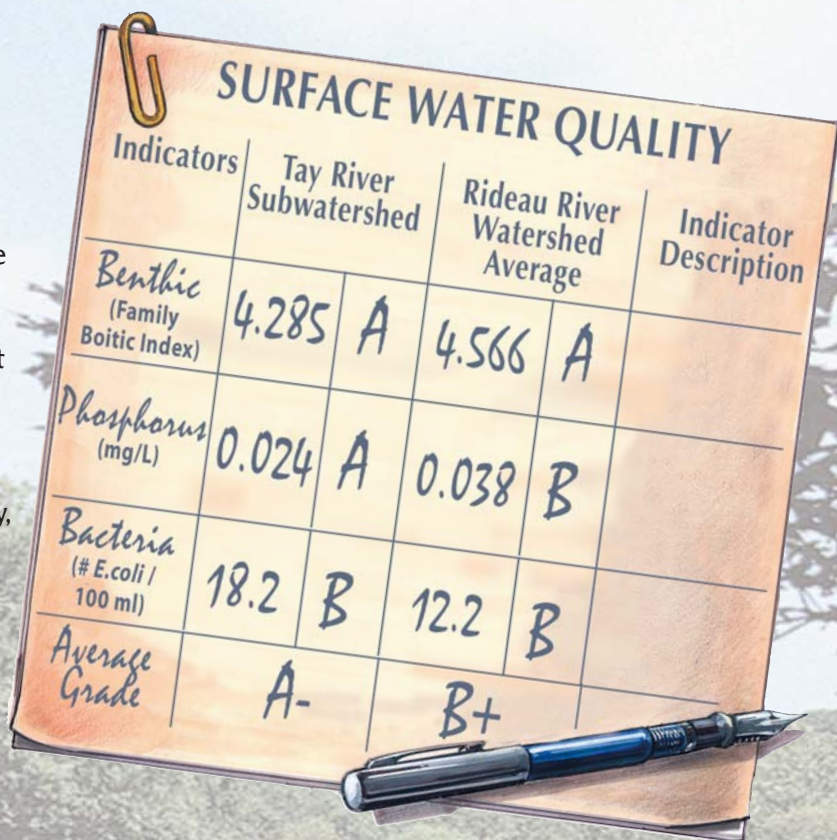
For watershed reporting within each resource category, indicators were selected that are both credible and practical for CAs to measure. These indicators provide specific information on the state or condition of a watershed and provide a means to determine progress towards improved watershed health.

Indicators selected for each category are as follows:

▶ **Forest Conditions**
% Forest cover and % forest interior

▶ **Surface Water Quality**
Benthic invertabrates; phosphorus and bacteria (*E.coli*)

▶ **Groundwater Quality**
Bacteria (*E.coli*), nitrates and chloride

The Watershed Report Card includes descriptions of each indicator, actions needed for improvement, any projects underway and additional information on the watershed.

It is anticipated that standardized Watershed Report Cards produced every five years by conservation authorities across Ontario will allow comparisons with other regions and will track changes over time.

SURFACE WATER QUALITY

Indicators	Tay River Subwatershed		Rideau River Watershed Average		Indicator Description
Benthic (Family Boitic Index)	4.285	A	4.566	A	
Phosphorus (mg/L)	0.024	A	0.038	B	
Bacteria (# E.coli / 100 ml)	18.2	B	12.2	B	
Average Grade		A-		B+	

SOME WATERSHED INDICATORS

Indicators are surrogate health measures for each resource category of watershed reporting.

FOREST COVER

This is the percentage of the watershed that is forest.

FOREST INTERIOR

This refers to the protected core area found inside a woodlot that some bird species require to nest and breed successfully.

BENTHIC INVERTEBRATES

These are small aquatic animals without backbones that live in stream sediments and are good indicators of water quality and stream health.

PHOSPHORUS

This element is found in products such as soaps, detergents, fertilizers and pesticides, and contributes to excess algae and low oxygen in streams and lakes.

BACTERIA (*E. coli*)

The presence of *E. coli* in water indicates contamination from human or animal fecal waste.

CHLORIDE

The presence of chloride in water may indicate contamination from road salt.

NITRATES

The presence of nitrates in water indicates contamination from fertilizers, manure and/or pesticides.

PROJECT PARTNERS

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