



## Watershed Management in Ontario: **LESSONS LEARNED** and Best Practices



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.

# OVERVIEW

Ontario has long been recognized as a world leader in watershed management. This report recognizes the origins of watershed management in the province back to the 1930's, examines the lessons that have been learned in the past decade and identifies best practices currently being used in watershed management and planning.

The lessons learned and best practices were identified by examining the experiences of three of Ontario's thirty-six conservation authorities - Credit Valley Conservation, the Grand River Conservation Authority and the Toronto and Region Conservation Authority.

There is great variation in the province in the size and nature of its watersheds, in the issues that are important, and in the tools and approaches used. Effective watershed management is therefore "place-based" and must reflect the distinct local environmental and social context of an area. The findings of this report - the lessons learned and the best practices in watershed management - will be useful and transferable to other conservation authorities in the province, as well as to municipalities, interest groups and others working to maintain and restore the health of Ontario's watersheds.

## MANAGING NATURAL RESOURCES ON A WATERSHED BASIS

There are a number of reasons why structuring policy, planning, management and implementation on the basis of watersheds makes good sense:

- ▶ Watersheds are an easily-understood ecosystem unit.
- ▶ The health of rivers and streams is both influenced by and a good indicator of the health of the lands through which they flow.
- ▶ Water systems demonstrate the cumulative effects of environmental stresses.
- ▶ Quality of life is directly linked to water quality in watersheds.
- ▶ There is strong and growing public support for implementation at the local watershed level.

The watershed has been recognized as an appropriate unit for managing water resources for at least 70 years in Ontario. After the passage of the *Conservation Authorities Act* (1946), conservation authorities (CAs) sprang up across the southern part of the province and began the challenging task of managing natural resources on a watershed basis.

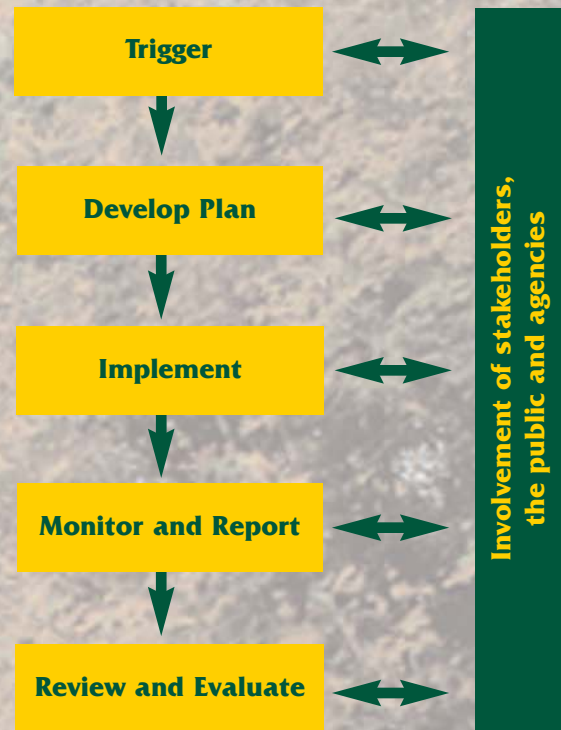
Conservation authorities are embracing new tools and approaches to involve the public in watershed planning and management. These include replacing traditional town hall type meetings with community workshops and Web-based ways of interacting with people. Tools such as Watershed Report Cards allow the public to easily understand environmental conditions, progress made, and where further effort is needed.

# WHAT IS WATERSHED MANAGEMENT ?

Since Ontario's first CAs were created, watershed management has evolved significantly with the scope of addressing many diverse environmental issues using an integrated, ecosystem-based approach. For the protection of Ontario's natural resources and environmental health, watershed management today:

- ▶ is the process of managing human activities and natural resources in an area defined by watershed boundaries;
- ▶ aims to protect and manage natural resources for current and future generations;
- ▶ reflects the local environmental and social context;
- ▶ uses an integrated, interdisciplinary approach;
- ▶ uses a partnership approach involving conservation authorities, municipalities and other key stakeholders;
- ▶ includes consultation with and involvement of the public at every stage; and
- ▶ uses an "adaptive environmental management" approach which reflects the need for continuous learning and improvement.

# WATERSHED MANAGEMENT FRAMEWORK



This generic watershed management framework can be adapted for any watershed, subwatershed, tributary or even environmental site planning process. The details of the approaches used will vary according to local environmental issues, social preferences, funding availability and many other local factors.



To be relevant, watershed management must not only be based on solid science, but must also acknowledge and reflect the preferences of the people living in the watershed.



## WHY IS THE PARTNERSHIP APPROACH SO IMPORTANT ?

The jurisdictional framework for protecting the environment and managing natural resources has evolved over decades. With responsibility shared by conservation authorities and all three levels of government, programs and policies are fragmented, with overlap in some areas and gaps in others. Partnership approaches aim to break through this fragmentation by bringing key decision-makers together to address issues cooperatively.

Successful watershed plans have been those in which key stakeholders - conservation authorities, member municipalities, government agencies and community representatives have been involved from the earliest stages. Along with effective public involvement, the resulting watershed plan encourages "buy in" from the entire community and creates a constituency that cares about the watershed and becomes a champion for it.

### FACTS

A total of 186 Watershed Management Projects were initiated and reported by conservation authorities for 1990 to 2000.

Here are a few interesting facts and accomplishments:

- ▶ The Grand River Basin Water Management Study (1977 - 1982) addressed issues such as flood damage, degraded water quality and water supply shortages. Today, the watershed plan is being updated to include components such as a water budget analysis and assimilative capacity study.
- ▶ In 1994, the Grand River and its tributaries were officially proclaimed a Canadian Heritage River, recognizing in part how basin management has helped the river recover from years of degradation and industrialization.
- ▶ The Credit River Water Management Strategy (1988 - 1992) addressed issues such as pending land use changes and associated concerns related to flooding, water quality degradation, impairment of the fishery and loss of wetlands. Today, work has begun on a watershed-wide integrated monitoring program, a watershed water budget and a water quality strategy to update the watershed plan.
- ▶ In 1985, the Toronto waterfront was designated as one of the 43 Areas of Concern within the Great Lakes Basin. The Don Watershed Regeneration Strategy was initiated, in part, because the Don River was a major contributor of pollutants to Toronto Bay. To date, Watershed Report Cards have been published for the Don Watershed (1997 and 2000) to report to the community on watershed health and progress on implementing the watershed strategy.

## PROJECT PARTNERS



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