

# Conservation Ontario 2007 Annual Report

Applying the Science



## **Applying** the Science

onservation Ontario is pleased to present its 2007 Annual Report entitled "Applying the Science". In this report we present information on key concerns involving all Conservation Authorities such as source protection planning, watershed stewardship, protecting lives and property from natural hazards, aging infrastructure and land management issues.

Throughout 2007, Conservation Authority priorities continued to focus on ensuring clean, sustainable water for Ontario, particularly through provincially supported source protection planning and watershed stewardship programs and activities.

One of the keys to protecting water, particularly as our climate continues to shift, is making sure that residents and communities understand their water – where it comes from, what impacts it and how much is available now and in the future. Recognizing this, in 2007 a number of Conservation Authorities released their first Watershed Report cards.

These documents present data around key indicators such as water quality and forest cover and present it in a way that provides us with a clear picture of the state of Ontario's environment at a local watershed level.

Collecting environmental data helps practitioners and decision-makers such as Municipal governments, the Province and Federal government to identify gaps in programs or funding, assess priorities and begin to draw up practical solutions to current or future problems.

Keeping the public informed is critical in this process because we need their support to make the sometimes difficult decisions that must be made in order to develop local solutions for larger challenges such as climate change.

The past year proved to be a busy and productive year for Conservation Authorities who continue to improve and build upon the current science in partnership with all levels of government, landowners and other agencies.



Dick Hibma Chair



Don Pearson General Manager

### **Creating** A Climate For Change

Climate change already affects water resources in our watersheds. Increasing temperatures create more drought conditions, more frequent severe weather, extreme rainfall leading to flood and erosion problems and lower levels in rivers, lakes, streams and groundwater sources. It is expected that we will experience reduced fisheries, degraded wetland & marsh habitats, poorer water quality and greater competition for water supplies, creating more frequent water restrictions.

Conservation Authority programs provide important tools and information for municipalities and other levels of government to help monitor the impact of climate change in Ontario as well as provide important watershed information to assist communities to adapt to climate change.



### Through their work, Conservation Authorities;

- ✓ Monitor water quality, supply and flow
- ✓ Develop watershed management plans which map out water and natural areas in order to show:
  - how much water is available within their watershed,
  - how it is being used,
  - what the likely future uses will require, and,
  - what is needed to keep the watershed healthy.

With this information, they develop programs which help to protect our watersheds.

- ✓ Deliver Watershed Stewardship programs for landowners and communities that protect our water. This includes tree and buffer planting for example.
- ✓ Make sure that our flood and erosion plans are up to date and in line with current standards

Conservation Authorities can speak to some of the impacts a changing climate may have on our local watersheds in terms of implications for forestry, tree species, water quality, flooding, aquatic species that rely on cold water and stewardship.

Adapting to climate change must begin right now. We must move forward in the areas of flooding and erosion, watershed management and stewardship. Conservation Authorities are part of the solution.



### Integrated Watershed Management

Healthy watersheds are the result of managing both water and the related land resources that affect, or are affected by, water. This is integrated watershed management.

Water management includes floods and droughts, surface water and groundwater, water supply and water quality. Related land resources include streams, wetlands, forests, soil, fish, plants and animals.

### Using a Watershed Approach

Rather than focusing piecemeal on individual problems, an integrated watershed approach takes a systems view, exploring the cause-effect relationships of human activities on natural functions and processes that extend across jurisdictional boundaries, and finding solutions that minimize negative environmental impacts.

Conservation Authorities are organized on a watershed basis and often work across more than one municipal boundary. As watershed based resource management agencies integrated watershed management is at the core of everything we do.

#### Planning is the key

The watershed management model applied by Conservation Authorities is based on a collaborative effort by those in the community who must take action (e.g., public sector agencies, industry and the general public). It brings together all key stakeholders, thus providing the opportunity for all watershed management issues to be considered, resources fairly allocated, and plan recommendations to be implemented. It uses monitoring and evaluation to improve the watershed management plan over time.

A watershed is an area of land that is drained by a river and its tributaries into another body of water while travelling over and under the landscape. Everything in a watershed, including people and natural systems, are connected and impact each other.

### **Drinking Water Source Protection**



Throughout 2007, Conservation Authorities continued to work in partnership with the Province to implement the Clean Water Act. The first phase of Clean Water Act regulations were passed in July and formalized Source Protection Authorities and Watershed Regions and established the process for formation of Source Protection Committees.

Throughout the summer Conservation Authorities were focused on the formation of Source Protection Committees (SPC). SPC chairs were appointed in August based on advice from Conservation Authorities. Committee members were appointed in the fall following an extensive stakeholder consultation process.

The Drinking Water Source Protection program provides an important means for Conservation Authorities to broaden the technical information available on many of Ontario's watersheds. The focus of technical work in 2007 was on the completion of draft watershed characterization reports and continued progress on water budgets.

The watershed characterization reports assemble a wide range of existing watershed data and information into one document. As well as foundation documents for the development of source protection plans these reports will be a valuable reference for all watershed management programs. Water budget reports, once complete, will be important reference documents for the Low Water Response Program and future water allocation decisions.

Conservation Ontario continued to develop communication and outreach tools for landowners, partners and other stakeholders interested in protecting municipal sources of drinking water.

The Provincial Groundwater Monitoring Network partnership agreement between Conservation Authorities and the Ministry of the Environment was renewed in 2007. The new agreement resolves a number of outstanding issues and ensures continuation of this important program.

### Watershed Stewardship Caring For Our Land Protects Water

#### Drinking Water Stewardship Fund

In 2007 Watershed Stewardship was recognized by the Province as an important implementation tool.

As a result, \$7 million was announced for 2007/2008 including \$2M in education and outreach and \$5M to support landowners to implement projects like well decommissioning, improved septic management practices, management of surface water runoff and small and medium sized businesses to undertake pollution prevention reviews. Conservation Authorities also received funding to promote early actions and provide information to landowners about their role in the protection of municipal drinking water supplies through property visits, workshops, meetings and tours.

Through this funding Conservation Ontario was able to develop a Source Protection Stewardship Toolkit which provides Conservation Authorities with common fact sheets and education products around water, source protection and watershed stewardship.

#### Greencover

Under Greencover Canada, Conservation Authorities continued to partner with the Ontario Soil & Crop Improvement Association and partners to provide technical support for the development and implementation of environmental farm plans with a special emphasis on riparian habitat enhancement and provision of alternate water sources for livestock, establishing fence rows or shelterbelts in 2007.

#### Trees Ontario

At least 21 Conservation Authorities undertook 2007 spring tree planting under the Trees Ontario Foundation (TOF) initiative implemented across southern Ontario with particular emphasis in the Greenbelt regions. Conservation Ontario also continued to participate as a member of the Board of Directors for TOF. Conservation Ontario and Conservation Authority staff provide ongoing information and guidance to the development of plans on how best to plant a total of 50 million trees by 2020.

#### Demonstrating Sustainable Farm and Rural Stewardship

In 2007 six Conservation Authorities collaborated with farmers and other agencies in eight of ten projects to demonstrate how environmental farming practices can help protect water in Ontario in a cost efficient manner.

These projects were funded by Greencover Canada through the Ontario Soil and Crop Improvement Association (OSCIA) on behalf of Agriculture and Agri-Food Canada and the Ontario Ministry of Agriculture, Food & Rural Affairs (OMAFRA).

Located on farms and natural areas throughout Ontario, these projects are demonstrating beneficial management practices such as constructed wetlands, vegetated riparian buffer strips, shelterbelts, improved stream crossings and fencing to manage grazing and improve riparian conditions.

### Watershed Reporting The State of Our Environment

Several Conservation Authorities completed their first Watershed Report cards in 2007. Where they can, these cards assess four common aspects: forest conditions, surface water quality, groundwater quality and benthic invertebrates (small aquatic animals that live in stream sediments and provide indications of water quality).

Regular reporting on Ontario's watersheds are important in order to target gaps in watershed programs and/or funding as well as ensure that residents have access to clear and understandable information about their local watersheds. The Conservation Authorities report cards for 2007 were filled out with the intention of continuing to monitor and collect information on land and water resources in order to produce comparable State of the Watershed reports every five years.

A selection of Conservation Authorities' watershed report cards are available on Conservation Ontario's website or on the websites of individual Conservation Authorities



### Communications Reaching Out

#### 2008 Calendar - Your Watersheds, Our Great Lakes

In partnership with the Ministry of Natural Resources (Great Lakes Branch), Ontario Stewardship Councils and Fisheries and Oceans Canada, Conservation Ontario produced a 2008 calendar entitled Your Watersheds - Our Great Lakes. This calendar provides important information about watersheds, water quality and quantity issues, stewardship, species at risk, international partnerships, as well as Ontario programs that protect the Great Lakes and its watersheds. The calendar features a series of original illustrations by designer, Bonna Rouse and is available on Conservation Ontario's website.

Conservation Ontario spearheaded the development of a special insert for the June 27 edition of the national newspaper, the Globe and Mail.

This edition highlighted some of the important work

being undertaken by Conservation Authorities and their agency and corporate partners. A total of 16 partners participated in this project which was also provided online to federal and provincial elected officials.



### **Biodiversity**

Conservation Ontario is a member of the Ontario Biodiversity Council (OBC), appointed by the Minister of Natural Resources in 2005. In 2007, the OBC reaffirmed its purpose and vision and substantially completed an "Interim Report on Ontario's Biodiversity", to be published in early 2008. The Interim Report is a gathering of information from existing sources, presented in plain language and illustrated with focus stories. The goal of this report is to initiate the process leading to the first "State of Ontario's Biodiversity" report in 2010 by describing the path forward and providing background context to highlight some of the issues, challenges, and opportunities ahead.

### **Natural Spaces**

Conservation Ontario continued to chair the Natural Spaces Leadership Alliance which was given a two year mandate in 2005 to work with the Ministry of Natural Resources to develop a voluntary tools and incentive program for natural heritage protection in Southern Ontario. The Alliance completed its final report, "Getting the Future Right" and presented it to the Minister of Natural Resources in November of 2007. The report encourages the Ontario Government to take a leadership role, set an over-arching strategy and provide resources to deliver programs in collaboration with partners and stakeholders.

#### Fish Habitat

The Aquatic Resources Management Advisory Group (ARMAC) which includes Conservation Ontario, made progress in 2007 by completing a new Compliance Protocol and a draft Referral Protocol under the Regulatory Management Working Group. The Stewardship Working Group completed a revision of its Terms of Reference, membership and relationship to the Stewardship Network of Ontario, while the Watershed Management Working Group completed new Terms of Reference, recruited membership and established new priorities and an action plan.



#### Water and Erosion Control Infrastructure (WECI)

Conservation Authority infrastructure which needs maintenance to continue to protect lives and property includes more than 800 dams, channels and dykes and erosion control works with an estimated replacement value of well over \$800 million. Since 2003 the Ontario Ministry of Natural Resources has provided \$5 million per year towards the funding of capital maintenance of this Infrastructure. Conservation Authorities have ensured that this was matched with an equal share of local funding. In 2007; 18 Conservation Authorities undertook 29 studies and 48 repair projects. Overall, this important partnership represented a \$10 million investment in public safety infrastructure. In fact, in 2007/08 there was potential to invest over \$18 million (provincial & local) demonstrating a strong demand for investment in public safety infrastructure and the need for the Government to continue its annual contribution.

## Protecting Lives and Property from Flooding and Erosion

Conservation Authorities develop and maintain programs that will protect life and property from natural hazards such as flooding and erosion in partnership with municipalities, Ontario Ministry of Natural Resources and Environment Canada. They monitor watershed conditions including snow, precipitation and flows, as well as, issue flood alerts to municipalities as conditions warrant. In 2007, Conservation Authorities provided input to the updated Flood Forecasting and Warning implementation Guidelines for Conservation Authorities and the Ministry of Natural Resources.

### Section 28 Regulations, Conservation Authorities Act

Conservation Ontario worked with the Ontario Ministry of Natural Resources to complete implementation guidelines for the Conservation Authorities around "Development, Interference with Wetlands and Alterations to Shorelines Regulations". The guidelines will be organized according to the areas/features regulated under Section 28 of the Conservation Authorities Act: including River or Stream Valleys, Great Lakes and Large Inland Lakes Shorelines, Hazardous Lands (Unstable Soil and Unstable Bedrock), Watercourses, and, Wetlands.

#### **Great Lakes**

Thirty-five Conservation Authorities drain into the Great Lakes/St. Lawrence system and through their mandate for watershed management and their coordinating role for five of the Great Lakes hot spots, they are important partners to enhancing and maintaining water quality and overall health of the Great Lakes. In 2007, Conservation Ontario made submissions regarding renewal of the Canada-Ontario Agreement Respecting the Great Lakes Basin Ecosystem and it was renewed to 2010. Conservation Ontario also participated in the Great Lakes Water Quality Agreement Review and sits on the Great Lakes Annex Advisory Panel which is currently developing Great Lakes St. Lawrence River Basin Draft Water Conservation and Efficiency Objectives.



## A.D. Latornell Conservation Symposium

The theme of the 2007 A.D. Latornell Conservation Symposium - Your Watersheds, Our Great Lakes highlighted how our activities

on our lands and in our watersheds can impact the quality and supply of water in our Great Lakes. A record number of people attended the 2007 event which featured popular keynote speaker, Justin Trudeau who addressed the graduation of the University of Guelph's Young Conservation Professionals Program.

This year's Latornell Grant was supplemented by a welcome grant from the Ontario Ministry of the Environment which enabled an additional 19 people from the nonprofit environmental sector to join practitioners and policy makers at this popular event.

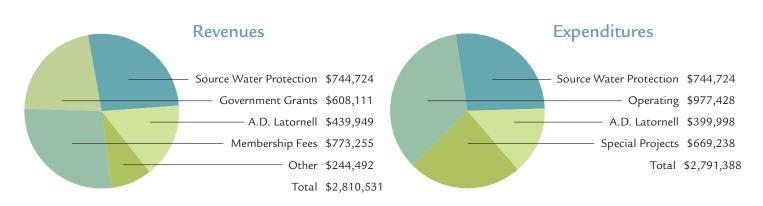
Conservation Ontario salutes the 2007 Pioneer Award Recipients who included: Deborah Beatty, Lou Wise, Michael Hough, Ted Mosquin and the late Bruce Duncan. These individuals were recognized for their lifetime work in innovation, leadership and dedication to the conservation field.







### **2007** Financial Information



These figures do not include the \$13,920,494 transferred to the Conservation Authorities for Source Water Protection

