Conservation ONTARIO
Natural Champions

MEETING the CHALLENGES *of an UNCERTAIN* FUTURE

CONSERVATION ONTARIO 2009 ANNUAL REPORT



REPRESENTS ONTARIO'S 36 CONSERVATION AUTHORITIES

MEETING THE CHALLENGES OF AN UNCERTAIN FUTURE

CHAIR/GENERAL MANAGER MESSAGE

Dick Hibma
Chair

Don Pearson
General Manager

We are already feeling the impacts of climate change in Ontario's watersheds. Increasing temperatures create drought conditions, more frequent severe weather, extreme rainfall events leading to flood and erosion problems and lower levels in rivers, lakes, streams and ground-water sources. It is expected that we will experience reduced fisheries, reduced wetland and marsh habitats, degraded biodiversity, poorer water quality and greater competition for water supplies, creating more frequent water restrictions.

In 2007, Premier McGuinty established the Expert Panel on Climate Change Adaptation with a mandate to provide advice to the government on positioning Ontario to adapt to the growing impacts of climate change. The panel released its report in November of 2009.

While the Expert Panel points out that Ontario is in a better position than many parts of the world, it articulated a series of steps that must be taken to build resiliency in this province to cope with the future uncertainties of climate change impacts. Scientists are able to track the shifts in our climate but they are not able to say with certainty how these trends will impact specific regions such as Ontario. This creates a problem – how do we plan for what we don't know – perhaps with what we aren't even familiar with? The answer to this question is to build resiliency within our local natural through the use of an **Integrated Watershed Management** approach.

We can't address climate change effectively by managing the environment on its own – we need to plan considering the influences society exerts – economically and socially. Taking into consideration the needs of water users, residents, our economy and society is a smart and efficient approach to building resiliency within our natural resources. This is the basis of a successful Integrated Watershed Management approach – key to Conservation Authority programs and services.

Coping with uncertainty is not a comfortable spot to be in, but that will most likely be our future. As watershed management agencies, Conservation Authorities already plan on a *watershed basis*; and deliver a wide variety of natural resource programs in partnership with other agencies, landowners and various levels of government including municipalities. Using the local resources of Conservation Authorities to help Ontario adapt to climate change makes good sense.

CLIMATE CHANGE

INTEGRATED WATERSHED MANAGEMENT BUILDS RESILIENCY

Watershed managers in Ontario face significant challenges in maintaining water quality and quantity today. Managing the expected hydrologic impacts of climate change and the resource needs for a sustainable ecosystem must be balanced with increased urbanization, growing population, prolonged droughts, pollution, changing uses of water and stressed or disappearing habitats and species.

Integrated Watershed Management is defined by Conservation Authorities as managing human activities and natural resources in an area defined by watershed boundaries, aiming to protect and manage natural resources *and their functions* today and into the future.

The myth of water abundance in Ontario is a key challenge and must be overcome to fully protect our resources say the results of an integrated watershed management initiative carried out by Conservation Ontario, the Ministry of Natural Resources, Fisheries and Oceans Canada, and the Ministry of the Environment.

Work was completed in 2009 on three primary reports within the initiative entitled: *Integrated Watershed Management: Navigating Ontario's Future*. These reports included:

- An Overview of Integrated Watershed Management in Ontario
- A Water Management Framework for Ontario
- A Water Budget Overview for Ontario

The reports begin by updating our understanding of Integrated Watershed Management (IWM) in Ontario, assessing it against IWM being conducted globally and nationally; identifying gaps; and recommending strategic shifts required to address these gaps.

From this research, the reports categorize a set of tools that could be applied to Ontario to enable smarter and more efficient planning and decision-making required to build resiliency in our watersheds in order to cope with the uncertainties of climate change impacts.

In addition to looking at IWM in Ontario, these reports also explore the development of a Water Management Framework and look at the use of Water Budgets in Ontario. Linkages exist between these initiatives as there is a hierarchical relationship with feedback loops between them.

Integrated Watershed Management allows us to address multiple issues and objectives. One of the keys to its success is that it integrates the science with the people who live and work in Ontario. It reveals how our actions – economically and socially – are tied closely to the state of the environment. Integrated Watershed Management requires all of us to know exactly what is going on in our watersheds and what has to be done to ensure a sustainable future.

The reports are scheduled to be released in 2010.

WATERSHED SCIENCE

Watershed science is the foundation of all Conservation Authority business. Whether flood management or drought, source protection or climate change, all Conservation Authority programs are dependent on understanding how our watersheds work. This isn't just a Conservation Authority activity, there are many local and provincial partners also involved in assembling the watershed science.

Building the science starts with collecting watershed data, but requires the assembly and analysis of that data to turn it into useful information. Finally there must be systems in place to ensure that partners and the public can access the science to inform watershed management decisions.

DATA COLLECTION

Conservation Authorities partner with a number of provincial ministries in the operation of water quality and water quantity monitoring networks. Conservation Ontario supports these programs through a number of activities:

- In 2009 Conservation Ontario continued to coordinate the operation of the Provincial Groundwater Monitoring Network (PGMN) by providing liaison between Conservation Authorities and the Ministry of the Environment (MOE) as well as transferring provincial funding to Conservation Authorities in support of equipment maintenance and upgrades.
- Conservation Ontario initiated a partnership project with the Ministry of Northern Development and Mines (MNDM), MOE and the University of Waterloo to analyze Provincial Groundwater Monitoring Network well samples for the environmental isotopes. Isotope analysis can be used to interpret the age of groundwater as well as interpreting groundwater recharge and flow paths.
- In partnership with MOE, MNDM, and the Ministry of Natural Resources (MNR), Conservation Ontario also initiated a project to complete a chemical analysis of stream sediments across southern Ontario. The objective of this project is to determine baseline characteristics of southern Ontario watersheds. The results of the survey will have direct relevance to the environmental health of watersheds, assessing human impacts and improving management practices.

DATA ANALYSIS

Monitoring data becomes useful for watershed management decisions once it is organized, reviewed and analyzed. Conservation Ontario supports Conservation Authority analysis work in a number of ways.

- The major Conservation Authority data analysis initiative was the development of Watershed Assessment Reports for the Source Water Protection Program. A few draft Assessment Reports were released in 2009 and the balance will be completed in 2010. These reports will contain a characterization of each watershed, a water budget and an assessment of risks to drinking water sources. While produced to support the completion of source water protection plans these reports will contain watershed information that will be of value to a range of watershed programs.
- The Low Water Response Program is a partnership between Conservation Authorities and MNR to manage low water and drought conditions. With MNR funding support, Conservation Ontario coordinated work by Conservation Authorities to assemble watershed information needed to support low water response decisions.

ACCESSING WATERSHED INFORMATION

In order to be used in watershed management decisions information must be accessible. Conservation Ontario supports access to information by Conservation Authorities and access to Conservation Authority information by others. Initiatives in 2009 include:

- Continued development of a web portal to allow Conservation Authorities to directly access MOE data bases
- Expansion of the **CAMaps** web portal that is used by a number of Conservation Authorities to make their data accessible to the public
- Continued support for the development of Conservation Authority watershed report cards with a general workshop held in the fall of 2009. This workshop began the process of ensuring a more consistent approach for Conservation Authorities to develop local watershed report cards. This work will continue into 2010.

SUCCESSFUL STEWARDSHIP REQUIRES COLLABORATIONS

Collaboration with organizations and individuals is key to successful delivery of local Conservation Authority programs. In 2009, Conservation Ontario and Conservation Authorities continued successful partnerships with the Ontario Soil and Crop Improvement Association (OSCIA), Trees Ontario and the Ministry of the Environment (MOE).

Conservation Authorities planted over 2.5 million trees in partnerships with local community groups, agencies and individuals. Funding was provided from a range of sources including Trees Ontario.

Through an agreement with OSCIA, Conservation Authorities also provided technical support to agricultural producers for implementation of beneficial management practices.

Locally many Conservation Authorities deliver rural water quality programs on behalf of municipalities. Throughout 2009, Conservation Authorities also delivered Early Actions and Special Projects with individual landowners, businesses and communities under the Ministry of Environment's Ontario Drinking Water Stewardship Program.

In 2009, Conservation Ontario was represented on Boards and Committees of a number of provincial and regional organizations providing guidance and support to a range of collaborative initiatives. These included Carolinian Canada, Ontario Land Trust Alliance, Trees Ontario, the Ontario Rural Council, the Ontario Biodiversity Council, the Stewardship Network of Ontario, and the Canadian Water Resources Association.

Conservation Ontario also facilitated training opportunities for Conservation Authority staff to develop and maintain technical expertise in water quality monitoring, watershed stewardship and restoration, and other skills. In 2009 this occurred through partnerships with MOE, the Ministry of Natural Resources (MNR) and Environment Canada (EC) on subjects related to Source Water Protection and Species at Risk.

POLICY AND PLANNING

DRAFT POLICIES AND PROCEDURES FOR CONSERVATION AUTHORITY PLAN REVIEW AND PERMITTING ACTIVITIES

In 2009 Conservation Ontario coordinated Conservation Authority review and input to the Ministry of Natural Resources' (MNR) "*Draft Policies and Procedures for Conservation Authority Plan Review and Permitting Activities*". Conservation Ontario worked closely with the Province and other stakeholders to provide a clear articulation of the roles and responsibilities of Conservation Authorities in the development process. It is anticipated that release of these policies and procedures will provide greater clarity regarding the role of Conservation Authorities in land use planning and issuance of permits under the *Conservation Authorities Act*, as well as promoting a greater consistency in the delivery of these activities and improved transparency

FOCUS ON CONSERVATION AUTHORITY STAFF TRAINING

Conservation Authority staff training has been an important focus for the Section 28 Regulations program in 2009. A two day workshop on the *Draft Guidelines to Support CA Administration of the "Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulation"* was attended by 110 Section 28 regulations staff. Additionally, a Conservation Ontario Regulatory Compliance Committee was formed to address policy and training needs of Sections 28 & 29 Provincial Offences Officers.

ADDRESSING GAPS AROUND THE REGULATIONS PROGRAM

In developing the Draft Guidelines for Section 28, gaps were identified that are required to be filled. In summer 2009 work began on the development of recommendations for undertaking environmental impact studies (EIS) for different scale projects re: wetland interference and hydrologic impacts on adjacent lands. Direction is being provided through a multi-stakeholder Steering Committee including staff from Conservation Ontario, Conservation Authorities, the Ministry of Natural Resources (MNR) and Ducks Unlimited Canada (DUC) and it is anticipated that the project will be completed by June 2010.

Another gap being addressed is provincial direction around municipal drains. The Drainage Act Section 28 Regulations Team co-chaired by MNR and the Ontario Ministry of Agriculture, Food & Rural Affairs (OMAFRA) continued to work on an administrative approach and technical direction with regard to permissions under the *Conservation Authorities Act* for construction, improvement, maintenance or repair of municipal drains.

RENEWABLE ENERGY AND CONSERVATION AUTHORITIES

In response to the *Green Energy & Economy Act* and supporting policies and regulations that were posted on the Environmental Bill of Rights throughout 2009, Conservation Ontario strongly encouraged the province to provide clarity for proponents of renewable energy projects with regard to the requirement to obtain permits for development and activities that are being proposed within Conservation Authority regulated areas. Provincial support for communication between the applicant and the local Conservation Authority as early in the project planning process as possible is essential for a streamlined application process.

AGING INFRASTRUCTURE

In 2009, Conservation Authorities implemented a total of 96 projects worth $10 million ($5M from the Ministry of Natural Resources) to ensure the maintenance of aging infrastructure which was built to protect lives and property from flood and erosion. A total of 134 applications were submitted and 24 Conservation Authorities received funding approval for 54 repair projects and 42 studies.

Managing Watersheds for Great Lakes Benefits

In 2009, Conservation Ontario continued to coordinate Conservation Authorities' input into a number of Great Lakes consultations (e.g. "Discussion Paper: Healthy Great Lakes, Strong Ontario", "Ontario Water Conservation and Efficiency Discussion Paper") and bi-national initiatives such as the Lake Ontario & Huron Biodiversity Conservation Strategies.

Given the significant influence that watersheds have on the Great Lakes, Conservation Authorities recognize that they can make important contributions through implementation of targeted watershed management actions and coordinated research/science agendas. The keys to success in addressing Great Lakes issues will be a truly integrated approach across municipal, watershed, provincial and federal jurisdictions; and sustainable funding from all three levels of government.

CANADA – ONTARIO AGREEMENT (COA)

COA 2007-2010 identified development of Biodiversity Conservation Strategies (BCS) for all the Great Lakes which provide one vehicle for integrating Conservation Authority business into the Great Lakes agenda and vice versa. Conservation Ontario staff participated on the bi-national, multi-stakeholder Steering Committees for development of Bi-national Biodiversity Conservation Strategies (BCS) for Lakes Huron and Ontario. Primary emphasis in 2009 was in participation in Lake Huron workshops and the Lake Ontario BCS was released in mid-2009. More than twenty professional staff from the Lake Ontario Conservation Authorities were engaged in the multi-year process and the Lake Ontario BCS indicates a strong bi-national support for watershed plans (e.g. for climate change adaptation strategies and targeting critical lands/waters for protection). Additionally it recommends linkages between watershed plans and nearshore ecosystem health for identification of key watershed management actions that will benefit Lake Ontario biodiversity.

In 2009, Conservation Ontario continued to encourage the next COA to include a governance model that recognizes the significant role of Conservation Authorities and integrated watershed management in achieving Great Lakes Basin ecosystem objectives.

WORKSHOP: NUTRIENTS IN THE NEARSHORE

With Environment Canada funding, Conservation Ontario hosted a multi-agency technical workshop "Managing Watersheds for Great Lakes Benefits – Nutrients in the Nearshore" in March 2009, to discuss the watershed and nearshore relationship. The workshop identified current threats as being population growth, changing land use practices, invasive species, and climate change. Without action, eutrophication and the growth of nuisance algae will increase, and affect fisheries, recreational resources, waterfronts and drinking water. Workshop recommendations (*www.conservation-ontario.on.ca/great_lakes_workshop*) detail an action plan for implementing a Great Lakes Nutrient Strategy that: promotes collaboration and integration, is science-based and adaptive, and encourages stewardship actions in the watersheds.

PRACTITIONERS NEED IMPROVED COMMUNICATION AND MORE SHARING OF INFORMATION AROUND THE GREAT LAKES

In 2009, Conservation Ontario led a complementary project, funded by the Ontario Ministry of Agriculture, Food & Rural Affairs, which resulted in a report entitled *An Evaluation of Water Resource Monitoring Efforts in Support of Agricultural Stewardship in Watersheds of the Great Lakes Basin* which can be found at: (*www.conservationontario.ca/healthy_great_lakes/pdf/CO-OMAFRA-workshop-lowres-complete.pdf*). The research showed clear support for improved communication and sharing of information on a level that meets the needs of practitioners and others involved in watershed monitoring and stewardship program development and delivery.

A September 2009 Conservation Ontario e-news bulletin entitled "Healthy Watersheds Contribute to Healthy Great Lakes" (*www.conservationontario.ca/news/CO_Great_Lakes_2009_Ebulletin.htm*) promoted Conservation Authority efforts towards protection of the Great Lakes and was shared with our partners.

It was also recommended that more coordinated and targeted water resource monitoring is required to assess the benefits of ongoing agricultural stewardship programs and to address new and emerging concerns.

COMMUNICATIONS AND OUTREACH

$H_2$0NTARIO - INTEGRATED WATERSHED MANAGEMENT SYMPOSIUM

H_2Ontario
Integrated Watershed Management: Navigating Ontario's Future

In partnership with the Ontario Ministry of Natural Resources, Ministry of Environment and Fisheries & Oceans Canada, Conservation Ontario hosted a **two-day symposium** on Integrated Watershed Management in May 2009. The event brought practitioners, policy makers and nonprofit agencies together to look at global advances within the field of integrated watershed management and explored how to navigate our way to a 'made-in-Ontario' approach that ensures we have a safe, sustainable supply of water today and into a challenging future.

Topics discussed included global, national and local approaches to integrated watershed management, adaptive environmental management and the role of NGOs in IWM, as well as, climate change, social learning, economic considerations, setting targets, assessing watershed stressors, updating IWM plans, monitoring and integration.

Presentations and resources from this event are available online *www.iwmsymposium.ca*

A.D. LATORNELL CONSERVATION SYMPOSIUM

Over 1,000 people attended the 2009 A.D. Latornell Conservation Symposium. The theme, ***The Currency of Ecology,*** addressed the important linkages between the economy and our environment. Leading Environmental Economists, Dr. Robert Costanza (Gund Institute, USA) and Dr. Peter Victor (York University) were featured along with world explorer and anthropologist Wade Davis. Other keynote speakers included Thomas Homer-Dixon, Lisa Glithero, Mitch Joel, MOE Minister John Gerretsen, and MNR Minister Donna Cansfield.

Each year, Symposium delegates recognize a number of individuals who have achieved lifetime recognition for their volunteer and/or professional work in the field of conservation. Recipients of the **2009 Conservation Pioneer Awards** included: the late Ian Parrish, Ian Macnab, Ernie Crossland, Allan Ralph and Craig Mather.

Also in 2009, a special commemorative video of the Symposium's namesake, Arthur D. Latornell, was completed. Art Latornell was one of Ontario's leading conservationists and a strong supporter of Young Conservationists and Conservation Authorities.

STEP INTO NATURE - TRAILS OPEN 2009

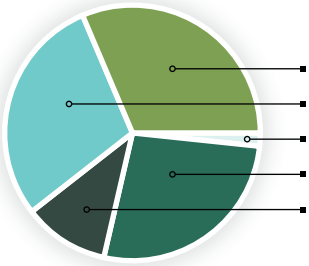
Step Into Nature

A total of 22 Conservation Authorities across Ontario partnered with Trails Open 2009 and offered a number of outdoor hikes and activities that ran from early June until the end of October. Trails Open is an event that runs in conjunction with Doors Open Ontario and is organized by the Ontario Heritage Trust.

People participating in the Conservation Authority events were able to enjoy the outdoors as well as become more familiar with the important role these natural areas play in promoting healthy watersheds. Through hiking and other activities, people were able to explore wetlands, escarpments, forests and shorelines.

Conservation Ontario promotes Conservation Areas and activities at *wwww.ontarioconservationareas.ca*

2009 FINACIAL INFORMATION



REVENUE

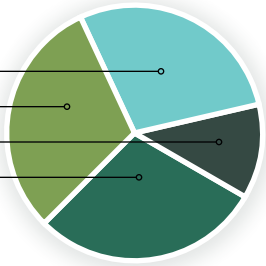
- Source Water Protection - $999, 421
- Special Projects - $926, 658
- Other - $51, 062
- Membership Fees - $850, 000
- A.D. Latornell - $352, 232

Total - $3, 179, 373

EXPENDITURES

- Operations - $910, 568
- Source Water Protection - $989, 205
- A.D. Latornell - $391, 610
- Special Projects - $932, 871

Total - $3, 224, 254



These figures do not include the $1,266,978 transferred to the Conservation Authorities for Source Water Protection.

Conservation ONTARIO
Natural Champions

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