

## Primer on Conservation Authorities in Ontario

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[http://en.wikipedia.org/wiki/Conservation\\_Authorities\\_Act](http://en.wikipedia.org/wiki/Conservation_Authorities_Act). Sourced 28 December 2012

The *Conservation Authorities Act* was created by the Ontario Provincial Legislature in 1946 to ensure the conservation, restoration and responsible management of water, land and natural habitat through programs that balance human, environmental and economic needs. The act authorizes the formation of conservation authorities.

[http://en.wikipedia.org/wiki/Conservation\\_authority\\_%28Canada%29](http://en.wikipedia.org/wiki/Conservation_authority_%28Canada%29) Sourced 28 December 2012

A **conservation authority** is a local, community-based environmental agency based in [Ontario](#), [Canada](#). Conservation authorities represent groupings of municipalities on a [watershed](#) basis and work in partnership with other agencies to manage their respective watersheds.

The 1946 [Conservation Authorities Act](#) provides the means by which the province and municipalities of Ontario could join together to form a conservation authority within a specific area - the [watershed](#) - to undertake programs of natural resource management. The Act applies to all lands within any given authority's regulation limits.

Conservation authorities are mandated to ensure the conservation, restoration and responsible management of Ontario's water, land and natural habitats through programs that balance human, environmental and economic needs. There are currently 36 conservation authorities in Ontario. Management programs generally occur in lands known as *conservation areas*, *restoration areas* or *wilderness areas*, though not all lands managed are necessarily designated as such.

Key areas of Authority activity include:

- Environmental protection — Conservation authorities protect local ecosystems and contribute to the quality of life in communities throughout the province.
- Water Resource Management — Conservation authorities are Ontario's community-based environmental experts who use integrated, ecologically sound environmental practices to manage Ontario's water resources on a watershed basis, maintain secure supplies of clean water, protect communities from flooding and contribute to municipal planning processes (that protect water).

## Conservation Authorities/Conservation Ontario

<http://www.conservation-ontario.on.ca/> Sourced 28 December 2012

Historically, the *Conservation Authorities Act* was legislated by the provincial government in 1946 in response to the concern expressed by agricultural, naturalist and sportsmen's groups who pointed out that much of the renewable natural resources of the province were in an 'unhealthy state' as a result of poor land, water and forestry practices during the 1930s and 1940s. The combined impacts of drought and deforestation had led to extensive soil loss and flooding. Prior to the establishment of the Conservation Authorities, throughout the Depression years and those of World War II that followed, organizations such as the Ontario Conservation and Reforestation Association, which had its roots in the counties, the Federation of Ontario Naturalists, and individuals writing for *The Farmer's Advocate*, pressed the case for conservation and wise resource management.

Many of these leading conservationists believed that real progress in developing a new approach to natural resource management would not occur until an integrated approach was undertaken using natural watershed boundaries. Although the responsibility for managing natural resources lay with the Province, the scale of erosion and water problems was such that it required a new approach, and when a number of municipal councils agreed to become involved, this spirit of cooperation led to the passage of the *Conservation Authorities Act* in 1946. The *Conservation Authorities Act* provided the means by which the province and the municipalities of Ontario could join together to form a Conservation Authority within a specified area - the watershed - to undertake programs for natural resource management.

### **Three Fundamental concepts of this new approach were embodied in the Act:**

- **Local Initiative** - A Conservation Authority in any area could only be formed when the desires of the residents reached the point where they were willing to request the government of Ontario to form an Authority. In making the request, the local people had to face up to the responsibility of contributing financially to the works of the Authority and also agree to assume the burden of running the corporate body known as the Conservation Authority. This latter task involved burdens and responsibilities similar to the running of a municipality. The local initiative requirement meant that people living close to the problems were required to recognize and solve them. It also meant that solutions would not be imposed from above and an Authority would only undertake those plans which it could face economically, culturally and democratically.
- **Cost Sharing** - The *Conservation Authorities Act* stipulated that the costs of projects should be shared by municipalities and by the provincial government. This proved to be one of the soundest ideas in the Authority movement. It has meant that an Authority can flourish only when the local people have enough enthusiasm and conviction to support it financially.
- **Watershed Jurisdiction** - Conservation Authorities were to have jurisdiction over one or more watersheds. This stewardship was to cover all aspects of conservation in the area. This has meant that a Conservation Authority has been able to handle such problems as flood control in a complete and rational basis. By its power to establish regulations, an Authority has been able to protect life and property, river valleys from building encroachment and erosion problems.

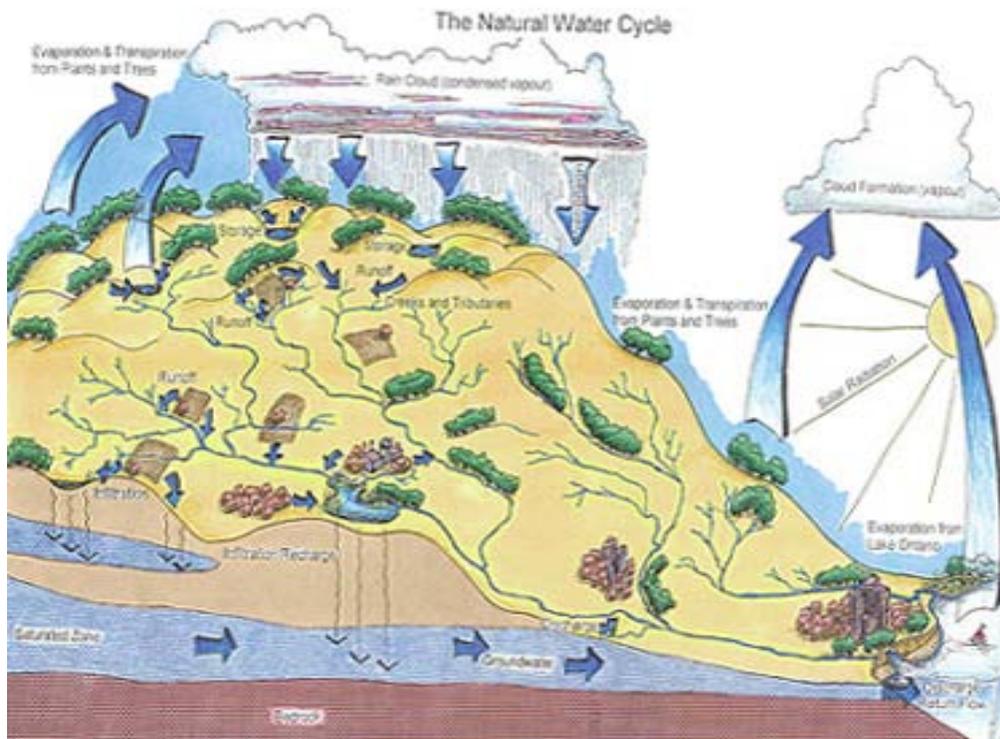
### **What is a watershed?**

A watershed is defined as an entire area, both water and land, that is drained by a watercourse and its tributaries. It is the area of land that catches rain and snow and drains or seeps into a marsh, stream, river, lake or groundwater. Homes, farms, cottages, forests, small towns, big cities and more can make up watersheds. Some cross municipal, provincial and even international borders. They come in all shapes and sizes and can vary from millions of acres, like the land that drains into the Great Lakes, to a few acres that drain into a pond.

A subwatershed is an area drained by an individual tributary to the main watercourse.

### **What is Watershed Management?**

Watershed management in its simplest terms means managing wisely upstream so that downstream remains natural and healthy. It is a process of managing human activities within watersheds in order to protect and rehabilitate land and water resources while recognizing the benefits of orderly growth and development.



*Watershed management plays an important role in understanding the water cycle and characterizing surface and groundwater with regard to quantity, quality, and pathways for existing and potential contaminants — everything is connected to everything else.*

Watershed management is a process that includes the following steps:

1. Gathering data about natural resources and their uses
2. Analyzing this data,

3. Using the data to design watershed management plans and projects that will protect and promote sustainability of our resources
4. Monitoring these plans and projects
5. Update the projects based on new data that is continually being generated.

Watershed plans can be implemented through a variety of mechanisms that are administered by several agencies at the provincial and local level. These can be categorized as land use planning (e.g. municipal zoning of sensitive areas such as groundwater recharge/discharge areas), regulations (e.g. restrictions on water takings), land and water stewardship (e.g. best management practices and water conservation), public land securement, and infrastructure development and maintenance. To ensure protection of source water supply and quality, the implementation mechanisms must take into account local watershed conditions and constraints as identified by the watershed management plan. For the purposes of assessing these as they relate to source water protection, the key decision-support tools are water budget modelling, aquifer vulnerability studies and assimilation studies.

Although successful examples exist, the current practice of watershed planning where it exists in Ontario, often led by conservation authorities, has not been consistently integrated with drinking water supply planning typically led by municipalities. Successful watershed planning provides a means for integrating planning for drinking water supplies with a broad range of water management objectives and results in improved effectiveness at meeting overall objectives. Often this approach to protecting drinking water sources will provide broader public/environmental benefits and vice versa.

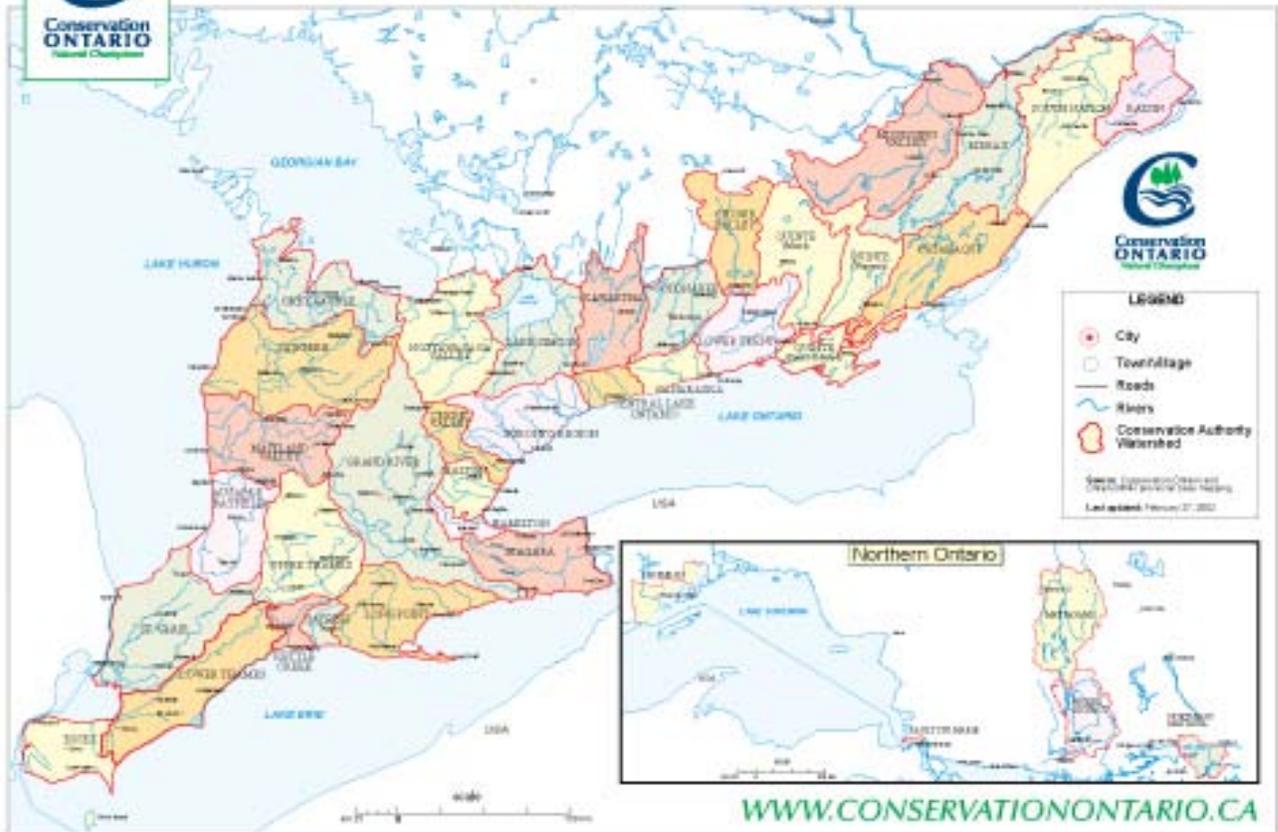
Watershed management will continue to evolve as experience with the projects increases and as more information becomes available, study methodology improves and as study issues are better defined. The Conservation Ontario model has received worldwide recognition over its 50+ year history and the watershed is now recognized as one of the premier natural ecosystem units on which to manage resources.

### **Ontario's 36 Conservation Authorities**

Conservation Authorities, the creation of which was enabled in 1946 by the *Conservation Authorities Act* of the Provincial Legislature, are mandated to ensure the conservation, restoration and responsible management of Ontario's water, land and natural habitats through programs that balance human, environmental and economic needs. The *Act* provides the means by which the province and municipalities of Ontario could join together to form a Conservation Authority within a specific area - the watershed - to undertake programs of natural resource management. However, it was local municipalities that had control over whether or not a Conservation Authority was formed, in that the legislature did not “impose” Conservation Authorities, rather it “enabled” municipalities to form them by majority vote (passed by 2/3 of the municipalities present).



## CONSERVATION AUTHORITIES OF ONTARIO



### Objectives

- Ensure that Ontario's rivers, lakes and streams are properly safeguarded, managed and restored;
- Protect, manage and restore Ontario's woodlands, wetlands and natural habitat;
- Develop and maintain programs that will protect life and property from natural hazards such as flooding and erosion;
- Provide opportunities for the public to enjoy, learn from and respect Ontario's natural environment.

A total of 31 Conservation Authorities operate in southern Ontario and an additional five Conservation Authorities deliver programs and services in northern Ontario. 90% of Ontario's 12 million population lives in a watershed managed by a Conservation Authority. There is periodic interest to establish new conservation authorities shown in areas like Muskoka, Manitoulin Island and the North Shore but lack of Provincial financial support is a disincentive.

### Key areas of Authority activity include:

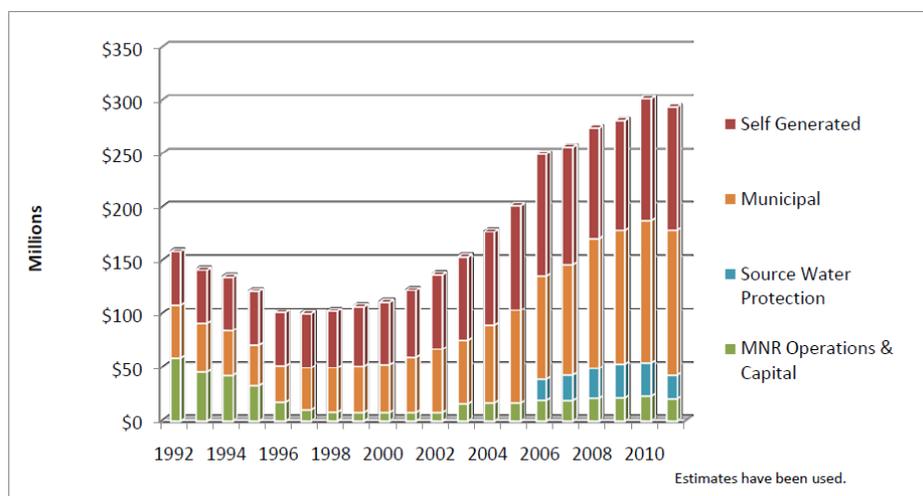
- Environmental Protection — The Conservation Authorities of Ontario protect local ecosystems and contribute to the quality of life in communities throughout the province.
- Water Resource Management — The Conservation Authorities are Ontario's community-based environmental experts who use integrated, ecologically-sound environmental practices

to manage Ontario's water resources on a watershed basis, maintain secure supplies of clean water, protect communities from flooding and contribute to municipal planning processes (that protect water).

- Lifelong Learning — The Conservation Authorities of Ontario create educational experiences in a natural environment that enrich the lives of peoples of all ages, by instilling an appreciation and enjoyment of our diverse natural heritage.

### Governance and Funding

- Governance can simply be defined as the framework in which decisions are made.
- Under the Conservation Authorities Act, municipalities appoint Conservation Authority board members in accordance with their individual and collective policies. For example, some municipalities appoint citizens, while others appoint members of council. The result is that, currently, approximately two-thirds of Authority Board members (province-wide) are concurrently elected to municipal council, although in some instances, this proportion is 100%.
- Conservation Authorities are funded primarily through municipal levies and special projects (45%) and self generated revenues (38%). Additional sources of funding for Conservation Authorities include provincial grants and special projects including source protection (14%) and federal grants or contracts (3%).
- In the 1990s, Ontario and its municipalities underwent a very thorough exercise to rationalize roles and responsibilities while increasing accountability of various levels of government by improving the link between taxation and program responsibility. For example, the province would fund major social programs including health care and education from its broad (and deep) tax base while municipalities would fund more place-based services such as roads, sewers and water through the property tax system or other appropriate rates. Within this context, what had been significant provincial transfer payments to the Conservation Authorities in the early 1990s, often exceeding the municipal share, has declined drastically and made municipalities responsible by default for a greater share of funding for the “partnership” to the point that municipalities now contribute three or four times as much as the remaining transfer payments even for provincially mandated programs such as flood hazard management.



- Conservation Authority Conservation Areas (some 150,000 ha of lands that provide outdoor recreation opportunities for more than 6 million visitors annually) are largely self-sufficient from either user fees or donations or in some cases the work of service clubs and organizations, and fill a niche in the fabric of green space that our rapidly urbanizing population requires to meet their basic needs.
- The funding inequity for Conservation Authority programs is an irritant in Conservation Authority-municipal relations, and in some cases, particularly where population and the local property tax base are sparse, creates significant financial hardship and variability in Conservation Authority capacity.
- The Ministry of Natural Resources has been responsible for administering the *Conservation Authorities Act* for the past forty years. The Minister is accountable to the Legislature for the Conservation Authorities program. Prior to the reduction in transfer payments in the 1990s, the Minister had considerable leverage through the financial and project approval mechanism. Devolution of the partnership toward a municipally-dominated one, leaves the Minister with inadequate tools to meet his or her responsibilities and has made municipalities responsible by default for a greater share of funding for the “partnership”.
- At the present time, the Conservation Authority is required to seek the approval of the Minister only for a relatively minor set of needs. A Conservation Authority is required to conduct an annual financial audit under Public Sector Accounting Board rules, and report to the Minister. It is also subject to the *Municipal Conflict of Interest Act* and a number of other statutes which compel it to conduct the business of the Authority in a responsible fashion.

### **Programs and Services**

Watershed management is certainly a major focus among Ontario's Conservation Authorities, as more than half of them were initially established to address flooding and erosion concerns. Conservation Authorities partner with municipal, provincial and federal governments, as well as landowners and other groups, to deliver community-based, practical solutions to a range of natural resource challenges.

In the formative years, dating back to the 1940s, the provincial government undertook resource surveys of watersheds and developed a suite of recommendations under the categories of flood control, land use, forestry, and recreation. The resulting “Conservation Reports” formed the basis for the Conservation Authority program until the 1980s when contemporary watershed planning came into being. It is interesting to note that the recommendations not only incorporated natural heritage (forestry, wetlands, and conservation of land) but cultural heritage as well.

Implementing these reports, Conservation Authorities purchased wetlands and marginal agricultural lands for reforestation, often under agreement with the Department of Lands and Forests, the MNR’s predecessor. The development of Conservation Areas to provide public access and recreation opportunities was undertaken, often in conjunction with large water control structures. In order to justify the major expenditures involving in many cases all three levels of government, dams and reservoirs and their surrounding lands were designed for multiple purposes – flood control, flow augmentation, recreation and wildlife - to maximize the return on public investment. The provincial government amended the Conservation Authorities Act in the 1950s to provide grants for the development of facilities to promote public access and use.

Conservation Authorities now deliver programs and services totaling almost \$300 million annually through more than 3,000 full time and seasonal, part time staff.

In developing programs to deal with these water-related issues, Authorities have also achieved an enviable record in wetland protection and management, conservation information and education, provision of local and regional recreational opportunities, forest management and heritage conservation. Authorities have become involved in a wide range of activities depending on the resource management concerns of local residents, member municipalities and the Province. The following summarizes the range in program development, but it must be kept in mind that all Authorities do not implement all programs. Each Authority's watershed management program is geared to its own special needs and conditions.

#### *Protecting People and Property against Flooding*

Conservation Authorities work in partnership with municipalities to protect life and property through the development of programs that minimize or prevent the impact of disasters such as flooding and erosion.

- Conservation Authorities manage \$2.7 billion dollars worth of flood control and prevention infrastructure including 900 dams, dykes, channels and erosion control structures.
- Flood management programs delivered by Conservation Authorities prevent an average of well over \$100 million a year in flood damages and loss of life.
- Programs and services to prevent and control flooding offered by Conservation Authorities include: monitoring conditions; modeling and forecasting flooding; issuing of flood warnings; regulation of development in flood prone areas, providing planning support and advice to municipalities to minimize the impacts of flooding; land acquisition; protecting significant ecosystems such as wetlands and forests that help to control flooding; and educating the public about flooding hazards.

#### *Resource Management & Watershed Stewardship*

Watershed stewardship is caring for our water, land, air and biodiversity on a watershed basis recognizing that everything is connected in a watershed and is affected by natural and human activities. Because what we do on land is reflected in our water and ecosystems, Conservation Authorities develop programs that protect land resources and promote watershed stewardship practices that lead to healthy, sustainable communities and industries. The responsible care of our natural resources and wildlife on a watershed basis is essential to balancing human and economic needs against the needs of our natural environment. We all need a vibrant environment in order to ensure that we have plenty of clean water and a healthy ecosystem. As caretakers of our environment, we need to continue to devise approaches to plan, promote and implement stewardship practices that protect and restore natural resources.

Conservation Authorities have a long history in working with landowners in the planning and delivery of watershed stewardship initiatives. The goal of Conservation Authority Watershed Stewardship programs is to protect and improve the health of our watersheds through projects developed cooperatively with local landowners including:

- Develop technical tools to monitor and assess the state of our watersheds
- Provide advice and technical assistance
- Promote community involvement

- Build partnerships with all levels of government, environmental groups, businesses, residents and landowners
- Create educational resources

Two key watershed stewardship programs are offered by many Conservation Authorities:

1. Water Quality Improvement
2. Forestry

Under these programs, Conservation Authorities may offer expert technical advice, design services and financial incentives to landowners such as:

- *Agricultural Beneficial Management Practices*
  - Fencing of livestock from streams, nutrient storage, buffer strip establishment, erosion prevention, shelterbelt planting
- *Reforestation, Tree & Shrub Planting/Woodlot Management*
  - Tree/shrub planting, tree/shrub sales, site planning, site assessment, monitoring
- *Rehabilitation, Restoration and Enhancement Projects*
  - Stream & wetland rehabilitation, wildlife habitat enhancement, species at risk protection and restoration
- *Water Supply and Septic Management*

In 2011:

- Conservation Authorities planted over 3 million trees with 2,000 landowners.
- Provided landowners with \$3 million in grants to carry out 623 water quality improvements including projects such as erosion control, clean water diversion, agricultural best management practices, well decommissioning and septic system improvements.
- Engaged 503 landowners and provided \$5.4 million in grants to carry out rehabilitation/restoration projects with wetlands, habitats, shorelines and stream and fish habitat.
- Conservation Authorities also work with municipalities and the Province to manage low water conditions. As of 2010, a total of 22 Low Water Strategies were in place by Conservation Authorities to manage low water conditions.

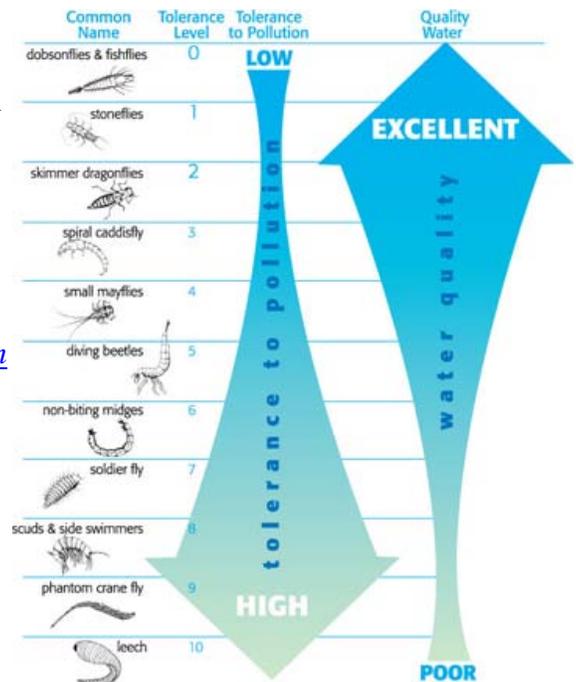
### *Monitoring the Health of our Watersheds*

Based on Ontario's system of watersheds, Conservation Authorities are known globally for their stewardship of our rivers, lakes and streams through the development and delivery of watershed-based programs that work with nature to protect, restore and effectively manage Ontario's water resources. In addition to serving the public and Ontario landowners, Conservation Authorities also provide advice and counsel to all levels of government on the responsible management of water.

- Conservation Authorities operate 422 monitoring sites within the provincial groundwater quality monitoring network and 404 sites in the provincial surface water quality monitoring network. Conservation Authorities also have 725 surface water quality monitoring sites and 67 groundwater monitoring sites in addition to the provincial partnerships.

- Conservation Authorities undertake biological and fish monitoring. Benthic invertebrates, tiny organisms that live in or on the bottom sediments of rivers, streams and lakes and serve as an indicator of the overall aquatic environment, are monitored at 1,117 locations across the Province.

[Illustration for benthic invertebrate indicators from Rideau Valley Watershed Checkup \(2006\).](#)



### *Watershed Reporting*

Healthy land and water resources ensure safe drinking water and resilient forests, wetlands and wildlife, enabling us to adapt more easily to climate change. Ontario's 36 Conservation Authorities monitor the health of natural resources in Ontario's watersheds because it helps us to better understand the local environmental issues, to focus actions where they are needed the most and track progress over time.

In 2012, Conservation Authorities completed development of Conservation Authority Watershed Report Card Guidelines to assist Conservation Authorities in developing a set of standardized watershed report cards to be launched in 2013. The guidelines can be found here: [Guide to Developing Conservation Authority Watershed Report Cards](#) (2012). In their report cards, Conservation Authorities monitor three key environmental conditions that are important indicators of a watershed's health:

- **Forest Cover & Forest Interior** — Forests provide habitat and shade; they help to clean our air and water and they protect the soil which promotes water infiltration and reduces both erosion and flooding. Forests also help to cool the land and air – nature's air conditioner! Conservation Authorities assess the area of their watersheds covered by forest; and the amount of forest "interior" (areas that are more than 100 meters from the forest edge which provides critical habitat for many species including songbirds).
- **Surface Water Quality** — Surface water is the water that makes up our rivers, lakes and streams. Conservation Authorities assess the quality of these water bodies by measuring water chemistry (phosphorous, oxygen) and organisms that live in the sediment at the bottom of streams and rivers. Some Conservation Authorities also measure bacteria.
- **Groundwater Quality** — Groundwater is the water found beneath the earth's surface, in water bearing layers known as aquifers. Groundwater is difficult if not impossible to clean once contaminated, so it is critical to protect areas of groundwater recharge. Conservation Authorities monitor water chemistry (nutrients, metals, chloride & nitrates).

### *Source Water Protection*

Around the world, modern water treatment has utilized the concept of multiple-barrier protection of drinking water. While source water protection is the first barrier, it has not been sufficiently emphasized or incorporated into regulations or standards in Ontario. The issue of water supply and source water protection is inextricably linked to other aspects of water and related land management. Water supplies may be derived from surface or groundwater sources and may serve



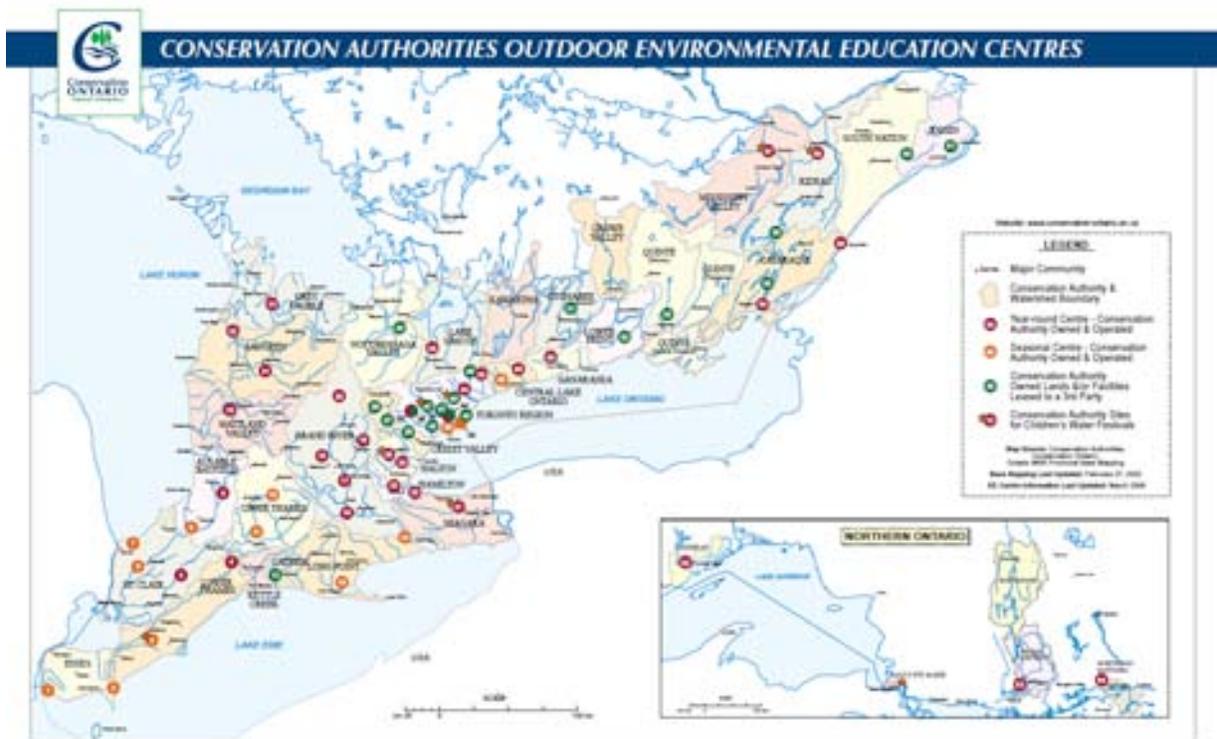
The first Conservation Authorities were formed when the *Conservation Authorities Act* was established in 1946. Conservation Area land use hasn't changed much since the beginning – they are used for specific resource management purposes such as flood control, floodplain management, forestry, natural area preservation and to provide recreational and educational opportunities.

Collectively Conservation Authorities now own and protect over 500 Conservation Areas (approximately 150,000 hectares) 75% forested, 40% wetlands, hazard and recreation lands as well as areas of natural & scientific interest, natural heritage, cultural sites and lands for flood and erosion control. Outdoor recreation and environmental education has been an important component of Conservation Authority operation since the 1950s. Over 270 Conservation Areas are accessible to the public. They contribute to the physical and mental wellbeing of the almost seven million people who visit them each year.

### Education

Through the lands they manage and own, as well as the educational programs they deliver, Conservation Authorities provide opportunities for citizens to understand and appreciate the value of their natural environment as well as the social and economic benefits of protecting that environment.

- Conservation Authority outdoor education programs are aligned with Ontario's curriculum Programs and in 2011, delivered programs to 485,000 Ontario students at more than 400 schools for \$7 per student.



In 2010, Conservation Authorities participated in 30 Children's Water Festivals as part of their outdoor education programs, seven of which were hosted on Conservation Authority properties. These unique outdoor events teach children about the science of water and how to protect it for the future. These are the same children who will provide leadership in the future to help Ontario adapt to climate change, protect our drinking water sources and build healthy sustainable communities – all the more reason to let them experience and learn in a green space where they will be more likely to remember not only the magic of being outdoors, but the lessons they learned.

### *Recreation*

- Over 400 Conservation Areas are managed and owned by Conservation Authorities.
- 8,400 campsites and almost 2,500 km of trails are located within Conservation Areas.
- Over 6.8 million people visited Conservation Areas in 2011 either as day visitors or campers.

### *Climate Change*

Climate change impacts Ontario's water resources and the effects are expected to escalate as we move into the future. The 1990's were characterized by warm, dry summers, less winter snow and ice cover and reduced spring runoff. 1999 was a record year in terms of drought and the provincial government came to the realization that while it had made great preparations with respect to flooding, it had no drought contingency planning in place. The Ontario Government through the Environmental Monitoring and Research Branch (EMRB) of the Ministry of Environment (MOE) entered into negotiations with Conservation Ontario for the reestablishment of the Provincial Groundwater Monitoring Network (PGWMN), abandoned some 20 years previously. Under this program, MOE would provide capital funding to establish 400 monitoring wells with state of the art instrumentation (initial cost was \$6 million), while Conservation Authorities would be responsible for operations including sampling, analysis and well maintenance. This agreement was recently re-negotiated with MOE taking responsibility for capital, lab testing and data analysis and management, with Conservation Authorities responsible for sample collection and well maintenance Annual costs to each party in the order of several hundred thousand dollars.

Some of the climate impacts that Conservation Authorities have currently 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
- more extreme rainfall which leads increased flood and erosion problems
- lowered river flows and warmed surface waters
- dried out wetlands
- degraded biodiversity

To help build resiliency to meet the challenges of an uncertain future, Conservation Authorities/Conservation Ontario developed outreach material in 2009 entitled "Adapting to Climate Change: Conservation Authorities on the Front Line" which is available as a [Presentation](#) with [Speaking Notes](#).

At present, programs for prevention have overtaken remediation as the preferred planning approach, yet changing precipitation patterns are challenging our working assumptions and design standards.

### *Green Energy Developments*

Conservation Authorities (CAs) are actively involved in the Green Energy Agenda. Development taking place within an area under the regulatory jurisdiction of the CA under the *Conservation Authorities Act* may require permit approval from a Conservation Authority in advance of the commencement of work on site. Additionally, CAs may be a key source of information for green energy proponents in preparing their applications. CAs have been identified as information providers in a number of Provincial [publications](#).

### *Land Use Planning*

Conservation Authorities are watershed-based resource management agencies, whose mandate includes a variety of responsibilities and functions in the land use planning and development process. Overall, the role of Conservation Authorities in the planning and development process is to eliminate unnecessary delay or duplication in the process while ensuring that decisions are informed by the best watershed science available.

#### ➤ Delegated Responsibility to Represent Provincial Interest in Natural Hazards

Conservation Authorities have delegated responsibilities to represent provincial interests regarding natural hazards encompassed by Section 3.1 of the Provincial Policy Statement, 2005 (PPS, 2005). These delegated responsibilities require Conservation Authorities to review and provide comments on policy documents (Official Plans and comprehensive zoning by-laws) and applications submitted pursuant to the Planning Act as part of the Provincial One-Window Plan Review Service. In 2001, Conservation Ontario signed a Memorandum of Understanding with the Ministry of Natural Resources and the Ministry of Municipal Affairs and Housing that defined the roles of and responsibilities of each agency with respect to delegated responsibilities for natural hazards. The Memorandum of Understanding (CO/MNR/MMAH, 2001) [can be viewed here](#).

#### ➤ Watershed-based Resource Management

Conservation Authorities, as ‘public bodies’ pursuant to the Planning Act, are to be notified of policy documents and planning and development applications as prescribed under the Act. CAs may comment as per their mandate to the municipality/planning approval authority on these documents and applications. In this role, the Conservation Authority is responsible to represent its program and policy interests as a watershed based resource management agency. In this regard, Conservation Authorities operating under the authority of the *Conservation Authorities Act*, and in conjunction with municipalities, develop business plans, watershed plans and natural resource management plans within their jurisdictions (watersheds). These plans may recommend specific approaches to land use and resource planning and management that should be incorporated into municipal planning documents and related development applications in order to be implemented.

➤ **Planning Advisory Service to Municipalities**

Conservation Authorities may perform a technical advisory role to municipalities, as determined under the terms of a service agreement with participating municipalities which may include, but is not limited to, matters related to the assessment or analysis of environmental impacts associated with activities near or in the vicinity of: sensitive natural features such as wetlands, river and stream valleys, fish habitat or significant woodlands; hydrogeology and storm water studies; and, in some cases, septic system reviews. By providing planning advisory services for the review of Planning Act applications, Conservation Authorities and municipalities can ensure the implementation of a comprehensive resource management program on a watershed basis.

The planning advisory service agreements allow the Conservation Authority the opportunity to provide advice to the municipality on the interpretation of the Provincial Policy Statement (PPS). With the exception of natural hazards for which Conservation Authorities have delegated responsibility to represent the provincial interest, this advice is not represented as a “provincial position”.

*Conservation Authorities as Landowner*

Conservation Authorities are landowners, and as such, may become involved in the planning and development process, either as an adjacent landowner or a proponent.

*Regulatory Responsibilities*

➤ *Conservation Authorities Act Regulations*

Sustainable water resources, clean air, a rich mix of plants, animals and habitats and a variety of natural areas for people to appreciate and keep active are important features of healthy communities in Ontario. In order to maintain the vitality of our watersheds and also protect peoples’ lives and property from natural hazards such as flooding and erosion, Ontario’s 36 Conservation Authorities administer the *Conservation Authorities Act* and its associated regulations. The *Conservation Authorities Act* was created in 1946 in response to erosion and drought concerns, recognizing that these and other natural resource initiatives are best managed on a watershed basis.

In 1956, in response to the severe economic and human losses associated with Hurricane Hazel (1954), amendments to the *Conservation Authorities Act* first empowered Conservation Authorities to make Regulations to prohibit filling in floodplains. These Regulations were broadened in 1960 to prohibit or regulate the placing or dumping of fill in defined areas where, in the opinion of the Conservation Authority, the control of flooding, pollution or the conservation of land may be affected. In 1968, amendments to the *Conservation Authorities Act* further extended the Regulations to prohibit or control construction and alteration to waterways, in addition to filling.

In 1998, the *Conservation Authorities Act* was amended as part of the Red Tape Reduction Act (Bill 25), to ensure that Regulations under the *Act* were consistent across the province and complementary to provincial policies. Revisions were made to Section 28, which led to the replacement of the “Fill, Construction and Alteration to Waterways” Regulation with the current “Development, Interference with Wetlands and Alterations to Shorelines and Watercourses” Regulation.

Ontario Regulation 97/04 outlines the content that each Conservation Authority's "Development, Interference with Wetlands and Alterations to Shorelines and Watercourses" Regulation would contain. While some Conservation Authorities have been regulating wetlands, shorelines and inter-connecting channels for years, the amendments required all Conservation Authorities to regulate Great Lakes shorelines, interconnecting channels, inland lakes and wetlands in addition to the areas and features each Conservation Authority historically regulated. Section 28 (1)(a) was not enacted under Ontario Regulation 97/04 because of the overlap and potential confusion with the Ministry of Environment's Ontario Water Resources Act and related regulations (i.e. Permits to Take Water).

In 2006, the Minister of Natural Resources approved the individual "Development, Interference and Alteration" Regulations for all Conservation Authorities (Ontario Regulations 42/06 and 146/06 to 182/06) consistent with Ontario Regulation 97/04. Through these regulations, Conservation Authorities are empowered to regulate development and activities in or adjacent to river or stream valleys, Great Lakes and inland lakes shorelines, watercourses, hazardous lands and wetlands. They ensure conformity of wording across all Conservation Authorities and complement municipal implementation of provincial policies under the *Planning Act* such as hazardous lands and wetlands. Development taking place on these lands may require permission from the Conservation Authority to confirm that the control of flooding, erosion, dynamic beaches, pollution or the conservation of land are not affected. They also regulate the straightening, changing, diverting or interfering in any way with the existing channel of a river, creek, stream, watercourse or for changing or interfering in any way with a wetland.

In participating in the review of development applications under the *Planning Act*, Conservation Authorities will (i) ensure that the applicant and municipal planning authority are aware of the Section 28 regulations and requirements under the *Conservation Authorities Act*, and, (ii) assist in the coordination of applications under the *Planning Act* and the *Conservation Authorities Act* to eliminate unnecessary delay or duplication in the process. More information on the Section 28 Regulations can be viewed [here](#).

Conservation Ontario has produced a brochure that outlines more detail on these regulations and the areas of land that are protected: [Development, Interference and Alterations Regulations Information Brochure](#).

➤ Other Delegated Regulatory/Approval or Review Responsibility

Individual Conservation Authorities may enter into agreements with federal and provincial ministries and municipalities to undertake delegated regulatory/approval responsibilities and/or reviews (e.g. septic system approvals under the Ontario Building Code; reviews under Fisheries Act Section 35).

The [Federal Fisheries Act](#) provides for the protection of fish habitat. Under the *Fisheries Act*, no one may carry out any work or undertaking that results in the harmful alteration, disruption or destruction of fish habitat unless it has been authorized by the Minister of Fisheries and Oceans Canada.

Conservation Authorities (CAs) may have individual agreements with Fisheries and Oceans Canada (DFO) to review proposed work for its potential harmful alteration, disruption or

destruction (HADD) of fish habitat pursuant to Section 35 of the federal *Fisheries Act*. Depending on the level of agreement in place, CAs may conduct the initial review of a project to identify any impacts to fish and fish habitat, determine how the proponent can mitigate any potential impacts to fish and fish habitat, issue letters of advice or work with the proponent and DFO to prepare a fish habitat compensation plan. CAs do not possess the authority to grant an authorization for a HADD of fish habitat. Applications requiring an authorization for a HADD are referred to DFO by the CA for final approval.

#### *Water Resources Information Program*

The Water Resources Information Project (WRIP) was initiated in January 2000 with participation from the Ontario Ministries of Natural Resources; Environment; Municipal Affairs and Housing; Agriculture, Food and Rural Affairs; and from Conservation Ontario. It has reviewed the current state of water information in Ontario and is developing a strategy to ensure information is readily available to support effective water management.

A variety of WRIP documents can be downloaded from Conservation Ontario at <http://www.conservation-ontario.on.ca/projects/wrip.html> including:

- WRIP Information Management Roadmap, 2010-2015 (2010)
- Establishing in-stream flow requirements to help protect the ecological integrity of freshwater resources (2005)
- Water Quality Monitoring Discussion Paper (2003)

*Other reporting products available from Conservation Ontario include:*

- Conservation Ontario Whitepaper - Watershed Management Futures for Ontario (2012) [PDF](#)
  - 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.



- Threats to Ontario's water and land resources such as urbanization and climate change are significant and growing larger. 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.
- Ontario's economic realities are creating budget constraints at all levels of government and there is a need to streamline operations, share resources and leverage expertise. New working relationships at provincial and local levels are needed in order to address increasingly complex watershed conditions created by climate change and growing populations. Maintaining the status quo and continuing on the current path will result in expensive and serious consequences.
  - Conservation Authorities believe an integrated watershed management approach as the best way to manage issues around water and related resources. Integrated watershed management is the process of managing human activities and natural resources on a watershed basis, taking into account social, economic and environmental issues, as well as community interests in order to manage water resources sustainably. This approach allows us to address multiple issues and objectives, and enables us to plan within a very complex and uncertain environment. Conservation Authorities call for the Province to confirm their support for using the integrated watershed management approach to build resilient watersheds and protect the health of Ontario residents.
  - The Conservation Authorities' work in watershed science, stewardship, monitoring, and reporting is critical to informing strategic local and provincial decision-making.
- An evaluation of water resource monitoring efforts in support of agricultural stewardship in watersheds of the Great Lakes Basin (2009)  
Executive Summary ([http://www.conservationontario.ca/healthy\\_great\\_lakes/pdf/CO-OMAFRA\\_Workshop\\_ExSumm.pdf](http://www.conservationontario.ca/healthy_great_lakes/pdf/CO-OMAFRA_Workshop_ExSumm.pdf)): It was recognized 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. Building on existing programs and partnerships was seen as an efficient approach. As such, current mandates and scales of existing monitoring activities can be improved to supply information for the effective design, implementation and evaluation of agricultural stewardship programs. Full report: [http://www.conservationontario.ca/healthy\\_great\\_lakes/pdf/CO-OMAFRA-workshop-lowres-complete.pdf](http://www.conservationontario.ca/healthy_great_lakes/pdf/CO-OMAFRA-workshop-lowres-complete.pdf) )
- [Guide to Developing Conservation Authority Watershed Report Cards](#) (2011)
- [Conservation Authority Forestry Programs Protect the Health of Ontario's Watersheds and Help Us Adapt to Climate Change Impacts](#) (2011)  
Proper forestry practices can improve water quality in lakes and streams; provide wind and water erosion protection; make poor land more productive and can create wildlife habitat. In addition, trees provide windbreaks and shade, helping to reduce heating and cooling costs. Trees also help us to adapt to climate change impacts by taking in carbon dioxide and releasing oxygen, helping to reduce greenhouse gas emissions.
- [Ecological Economics 101: Value of Ecological Services in the Credit River Watershed](#)  
Credit Valley Conservation's natural capital and ecosystem valuation reports:
- The Credit River Watershed: Property Value Appreciation: Impacts of Natural Features (2009)

- [http://www.creditvalleyca.ca/bulletin/downloads/CVC-NatFeatRpt-Mar31\\_09.pdf](http://www.creditvalleyca.ca/bulletin/downloads/CVC-NatFeatRpt-Mar31_09.pdf)
  - The Credit River Watershed: Valuation of Angling (2008)
  - <http://www.creditvalleyca.ca/bulletin/downloads/cvc-anglingRpt-Jan29.pdf>
  - An Analysis of Present and Future Carbon Storage in the Forests of the Credit Valley Watershed (2010)
  - <http://www.creditvalleyca.ca/bulletin/downloads/CVC-CarbonStudyFinal.pdf>
  - Natural Credit: Estimating the Value of Natural Capital in the Credit River Watershed” (2009)
  - <http://www.creditvalleyca.ca/bulletin/downloads/CVC-NaturalCreditReport.pdf>
  - Valuing Wetlands in the Southern Ontario’s Credit River Watershed. Phase 1: Wetland Ecosystem Services Characterization (2009)
  - <http://www.creditvalleyca.ca/bulletin/downloads/ValuingWetlandsPhase1-final.pdf>
  - Valuing Wetlands in the Southern Ontario’s Credit River Watershed. Phase 2: A Contingent Valuation Analysis (2010)
  - <http://www.creditvalleyca.ca/bulletin/downloads/ValuingWetlandsPhase2-final.pdf>
- Species-Habitat Conservation Fact Sheets
- [Buffers and Livestock Fencing](#)
  - [Butternut Recovery Program](#)
  - [Communities for Nature](#)
  - [Habitat for Reptiles](#)
  - [Wetland Creation and Enhancement Program](#)
  - [Restoring the Shore for Fish](#)

### **Issues Impacting Conservation Authority Effectiveness**

There are a number of issues relating to the roles of Conservation Authorities and their relationship to the Province which impact Conservation Authority effectiveness:

- The current accountability framework for Conservation Authorities has been criticized as inadequate by some stakeholders and interests. Some would prefer stronger provincial oversight or control; while others would lobby for greater stakeholder influence.
- Overlap, duplication and lack of clarity of provincial policy in relation to Conservation Authority business.
  - Broad legislative mandate under Section 20 of the *Conservation Authorities Act* leads to “questions of legitimacy” raised by some individuals / businesses whose interests appear to be impacted (e.g. landowners, developers, municipalities). Section 20 of the *Conservation Authorities Act* states, “The objects of an authority are to establish and undertake, in the area over which it has jurisdiction, a program designed to further the conservation, restoration, development and management of natural resources other than gas, oil, coal and minerals”. (R.S.O. 1990, c. C.27, s. 20)
  - Conservation Authorities have historically operated programs that were on the surface, duplicative of those provided through the Ministries own operating entities. To some extent, the Province has attempted to grapple with this particularly around the land use planning process and the *Planning Act*. In this model, responsibility for land use planning from the creation of official plans to zoning bylaws to approval of development applications resides (appropriately) at the municipal level. The Provincial Policy Statement addresses issues such as natural hazards, natural heritage and the appropriate

range of housing types and densities. Municipalities are given significant authority under the *Planning Act*, subject to the requirement that decisions “shall be consistent with” matters of provincial interest. In some cases, such as flood and hazard policy, there is a very mature and robust policy in place with supportive technical guidelines and the responsibility has been delegated to the local Conservation Authority to represent provincial interests.

- In other cases, such as natural heritage systems, the policy is less robust, there is no provincial standard and limited provincial guidance has only become available recently. Many Conservation Authorities have often been invited to fill the gap by their local municipalities who recognize that the Conservation Authority has the capacity and expertise. As part of its overall watershed plan, some Conservation Authorities have identified the linkages between the natural heritage system, hazard lands, water resources, and so on. In these cases, the Conservation Authority has taken the initiative to “market” a natural heritage system to the municipalities which they are free to incorporate, modify or reject through their Official Plan amendment process.
  - It is this interface between natural heritage systems planning and land use planning where some municipalities, the development industry, and the provincial government often have conflicting notions of the Conservation Authority role, questioning their legitimacy in any involvement in the process. Notwithstanding a lengthy multi-stakeholder discussion and policy development exercise around this, the controversy remains.
  - In part, this has developed with the steady decline of the field presence of the Ministry of Natural Resources, to some extent, being offset by expansion of Conservation Authority programs. It can be argued that more local control of these services has been a beneficial outcome; others argue its provincial download. Conservation Authorities have taken the position that an integrated approach to watershed management is not only more efficient and effective, it is more equitable in that there is an opportunity for local stakeholders to participate in the process. However, progress toward this paradigm will not be significant unless the province acknowledges the value of Integrated watershed management and commits to the necessary discussions that will lead to this transformation.
  - The Ministry of Natural Resources has been responsible for administering the Conservation Authorities Act for the past forty years. The Minister is accountable to the Legislature for the Conservation Authorities program, yet the devolution of the partnership toward a municipally dominated model, leaves the Minister with inadequate tools to meet his or her responsibilities. The extent to which Conservation Authorities operate as autonomous, corporate entities, governed by their own Boards within a provincial policy framework, should be reconciled within an appropriate legislative, policy and governance framework.
  - The current Conservation Authority and Ministry of Environment relationships have evolved on an ad hoc basis and are managed within individual branches of the Ministry, usually by annual memorandums of agreement. This approach is administratively inefficient and given the complexity and apparent longevity of the relationship it would seem reasonable to discuss rationalizing/normalizing it.
- Although successful examples exist, the current practice of watershed planning where it exists in Ontario, often led by Conservation Authorities, has not been consistently integrated with drinking water supply planning typically led by municipalities.
  - Concern about how members of Conservation Authority Boards are appointed.

- Under the Conservation Authorities Act, municipalities appoint Conservation Authority members.
  - The case for appointing elected members relates to perceptions of accountability, the theory being that elected members will tend to reflect the will of their appointing municipal council more so than will citizen appointees. However, the principal of fiduciary responsibility would suggest that the members should vote in accordance with the best interests of the watershed.
  - Some members of the environmental non-governmental organization community believe that a Conservation Authority Board comprised of municipal councilors will tend to favour development, while a citizen board will have a more environment-friendly position. There is also merit to the argument that the Conservation Authority would function with greater balance if interests beyond those of municipalities were represented at their Boards.
  - As long as municipalities provide the major share of financing for the program, and Conservation Authority Boards retain the power to levy, it is unlikely that the power of appointment would be willingly relinquished by municipalities.
  - However, Conservation Authorities have been leaders in developing non-tax base revenues including user fees and charitable foundations. In fact, the second largest pool of funding for Conservation Authority programs is self-generated, comparable to the municipal levy but less than total municipal funding. This greatly enhances the argument for non-municipal representation on Boards.
- Variability in Conservation Authority capacity related to local tax base and local issues
    - Conservation Authorities have been criticized for not being able to provide a consistent level of services across all watersheds. While many Conservation Authorities operate with a full suite of professional, technical, scientific and administrative expertise, there are some which are not able to do so due to a limited local tax base. It has to be acknowledged that the local financial burden is not equitable across all Authorities and that this problem is not resolvable locally. In 2010, the per capita levy ranged from under \$5 to \$35 across the 36 Conservation Authorities.
  - The ability of Conservation Authorities to provide a consistent level of services within and across watersheds has also been challenged by declining provincial support for financial priorities. What had been significant provincial transfer payments to the Conservation Authorities in the early 1990s, often exceeding the municipal share, has declined drastically to the point that municipalities contribute three or four times as much as the remaining transfer payments even for provincially-mandated programs such as flood hazard management.
  - At present, the second largest pool of funding for Conservation Authority programs is self-generated, comparable to the municipal levy but less than total municipal funding. This greatly enhances the value of the Conservation Authority program in terms of its ability to leverage revenues from all levels of government.
  - Need for a review and clarification of the role of Conservation Ontario.
  - The extent to which Conservation Authorities operate as autonomous, corporate entities, governed by their own Boards within a provincial policy framework, needs to be reconciled within an appropriate legislative, policy and governance framework.

## **The Path Forward**

Conservation Ontario has recently articulated a number of specific challenges with the existing watershed management policy and governance framework in Ontario (Watershed Management Futures for Ontario [PDF](#) ) and contends that these challenges are currently compromising the Province's ability to effectively and efficiently manage its water and other natural resources for environmental, economic, and social benefits. The current fiscal reality further exacerbates these challenges. That said, the transformational agenda that is currently underway presents an opportunity to redesign the watershed management framework.

Conservation Authorities have identified an integrated watershed management approach as the most efficient and effective way to manage issues around water and related resources while providing stakeholders with timely and meaningful opportunities to participate in decision-making processes that will ultimately affect their quality of life. The watershed management perspective provides an effective frame of reference for integration of provincial and federal policy and science into local decision-making ensuring that natural resources and water, in particular, is sustainable for all economic, social, and environmental uses in our watersheds and managed to avoid future flood damages.

It is within this context that meaningful discussion must occur and should include all stakeholders (Province, municipalities, non-governmental organizations, and the Conservation Authorities) in order to move forward. These discussions must include the role and mandate of both the Province and Conservation Authorities in order to address issues that create barriers to a more streamlined approach to watershed management.

Conservation Ontario recognizes that a sweeping review of watershed management in Ontario will include the refinement of the Conservation Authority model itself. However, it is the Province that must accept a leadership role in establishing this dialogue at the earliest possible date, and commit to implement a sustainable, responsive, and effective watershed management future for the benefit of all Ontarians.