



## 2016 Pre-Budget Submission to the Federal Minister of Finance

February 23, 2016

### **Conservation Authorities – Supporting Federal Government priorities in managing extreme weather and green infrastructure partnerships in Ontario.**

**Key Message: Ensure conservation authorities are eligible for new Federal funding around flooding, for protection against changing weather and growing a strong Economy.**

#### **Introduction**

Conservation Ontario represents the network of Ontario's 36 conservation authorities, local watershed-based natural resource agencies located throughout Ontario. Approximately 90 percent of Ontario's population lives in watersheds managed by conservation authorities. Conservation authorities are legislated under the *Conservation Authorities Act*.

Conservation Ontario applauds the Federal Government for recognizing that climate change is the critical issue of our time, affecting Canada and specifically Ontario in many different ways. One of the impacts conservation authorities are tracking and responding to are more frequent and extreme weather events. Floods are the most frequent natural hazard in Canada. In Ontario, flooding is the leading cause of public emergency often resulting in damage to property and infrastructure, costly business disruption and possibly even loss of life.

#### **Conservation authority programs address climate change and provide economic benefits**

Conservation authorities specifically address the impacts of climate change through many different science-based watershed management programs. These include: watershed planning, flood management operations, regulations, and initiatives such as tree planting and the promotion, design and implementation of other types of stewardship and green infrastructure which help to build watershed resilience and diminish the impact of urban and rural flooding.

- Through their operations, conservation authorities inject \$300 million annually into local Ontario economies and employ approximately 3,600 full time, part time and seasonal workers.

- Flood management programs delivered by conservation authorities prevent an average of well over \$100 million a year in flood damages and loss of life to one of Canada's most populated provinces.
- Flood management is a shared responsibility among conservation authorities and all levels of government.
- Through their flood operations, conservation authorities provide the following services: monitoring stream flow, rainfall and snow packs; modeling and forecasting of floods; issuing flood warnings to municipalities and the general public; partnering with the municipal emergency planning and preparedness activities; providing planning support and advice to municipalities to minimize flood impacts; acquiring selected flood plain lands and flood vulnerable structures; management of critical flood infrastructure; and informing and educating the public about flooding.

### **Lagging investments in conservation authority flood operations and infrastructure is serious**

The conservation authority model of flood management is unique to Canada and has been in place in Ontario since the mid-1940s. The cost of conservation authorities' flood management operations was originally shared 50/50 between the Ontario government and local municipalities. In the mid-1990s, the Province significantly reduced its funding in this area and now funds a small portion of the conservation authorities' flood management operations through the provincial natural hazards program.

Today, conservation authorities are funded primarily through a combination of municipal levy (48%) and self-generated revenues (40%) with some provincial (10%) and federal government (2%) funding. Smaller, rural and northern conservation authorities are much more limited in their ability to generate revenue and rely more heavily on local municipal levies who themselves, have much smaller tax bases from which to draw.

Yet, despite their continued reliance on conservation authorities for flood management operations, the Province only provides \$7.4 million annually to be shared by all 36 conservation authorities. (As well, there is a \$5 million annual fund for project-specific, major maintenance of water and erosion control infrastructure ).

Over time, the lack of provincial investment in conservation authority flood management operations and infrastructure has created a 'perfect storm' of aging infrastructure and in many cases, outdated flood operations. This jeopardizes the conservation authorities' efforts to keep pace with the escalating impacts of more frequent and stronger extreme weather events.

Conservation Ontario has been promoting the challenges to conservation authority flood management operations to the Province through a 2013 Flood Business Case. In 2015, an

inventory of conservation authority floodplain mapping was completed and these numbers are being used to update the business case which will be released shortly by Conservation Ontario.

Conservation authorities are in need of both short term funding and significant long term funding as outlined in the business case to address:

- Aging infrastructure
- Outdated floodplain mapping
- Constrained conservation authority flood operations
- Lack of asset management plans, particularly for rural and northern conservation authorities

More information about Conservation Ontario's Flood Business Case can be found at:

<http://www.conservationontario.ca/what-we-do/flood-management>

### **A long term plan is needed but immediate investments are urgent**

Respecting the challenges facing all levels of Government this submission provides Conservation Ontario's response to the Federal Government 2016 pre-budget consultation questions #2 and #4:

**Question 2: What infrastructure needs can best help grow the economy, protect our environment and meet your priorities locally?**

**Question 4: Most importantly of all – will the priorities and initiatives we elect to undertake help grow our economy? And can we realistically implement it?**

The focus of our submission highlights how conservation authority critical flood management operations and infrastructure would benefit with Federal investments from the **Green Infrastructure Fund** and **Natural Disaster Mitigation Program**.

Conservation authorities are valuable partners who attract and leverage a wide range of other resources to deliver programs and services that provide many local and broader co-benefits. These programs and services help all levels of government to address and make progress on important policy priorities such as climate change, healthy Great Lakes, and protection of biodiversity and water supplies.

Conservation authorities are requesting that the Federal government ensure conservation authorities are eligible for new Federal funding around flooding for protection against changing weather and growing a strong economy. The specific programs are addressed in the section below:

## 1. Infrastructure Canada - Green Infrastructure Fund

Conservation authorities are ready to work with Infrastructure Canada to implement and manage infrastructure projects where 90 percent of Ontario's residents live. This includes making investments in climate resilient traditional grey infrastructure like flood mitigation systems (e.g. dams) as well as living green infrastructure such as vegetative technologies and the protection and restoration of natural lands.

Conservation Ontario and the conservation authorities can work with the federal government to identify immediate and long term flood mitigation and infrastructure investment needs which will meet the government's objective to promote better asset management, and to develop data collection and data sharing capacity.

Conservation authority flood and erosion control infrastructure is a combination of traditional 'grey infrastructure and living 'green infrastructure'.

- Conservation authorities collectively own and operate over 900 dams, dykes, channels and erosion control structures with a replacement value of \$2.7 billion
- Currently, conservation authorities are only able to address a small portion of their more urgent and critical major maintenance concerns of aging infrastructure with funding from the Ontario government's Water and Erosion Control Infrastructure (WECI) program

A total of \$5 million/year is provided by the Ontario government and matched with another \$5 million/year from local municipalities. **This program is regularly oversubscribed** and often, smaller rural and northern infrastructure does not rank high enough in the risk management framework to receive funding and/or these municipalities are not able to match the provincial funding

This program is supported by a flood infrastructure data base which is managed by conservation authorities in partnership with the Province of Ontario

- There is also a need for more investment into conservation authority 'living' green infrastructure which helps to prevent and manage the impacts of stormwater runoff. This type of green infrastructure typically includes natural areas, forests, parks, streams and riparian zones, wetland protection and restoration, as well as engineered facilities and technologies such as low impact development design which promotes the use of green roofs, rain gardens, constructed wetlands, bioswales, and stormwater ponds. These practices help to capture, treat, infiltrate, filter and retain runoff at the source.

These practices can be implemented at multiple scales including regional networks of open spaces, agricultural lands, natural areas, and through site-specific practices.

Green infrastructure includes traditional watershed stewardship best management practices which also reduce runoff and provide other co-benefits such as improved Great Lakes water quality and protection of water supplies and natural habitat for species at risk.

### **Examples of Conservation Authority Leadership and Involvement in Green Infrastructure projects:**

- **Credit Valley Conservation Authority Low Impact Development projects** - construction and monitoring of Low Impact Development (LID) projects designed to reduce runoff at the site. By capturing and infiltrating the water at the source (for example by installing permeated pavement and bioswales in parking lots), urban runoff is reduced, as is the threat of flooding. Monitoring of the sites is being conducted to demonstrate the effectiveness of the LID measures to control water quantity and improve water quality.
- **Lake Simcoe Region Conservation Authority Stormwater Management practices to reduce runoff and phosphorus** – working with local municipalities to assess and locate sites for the implementation of low impact development projects across the watershed. Demonstration projects are being implemented in seven locations to promote these technologies, supported with training and incentives. The technologies include bioswales, permeable pavement, and rain gardens.
- **Upper Thames River Conservation Authority climate change research project to reduce stormwater nutrient runoff** - researching, analyzing, modeling and acquiring data related to water quality and flooding issues from climate change in the Thames River watershed. The project includes redesigning and testing rural best management practices like cover crops, grassed waterways, and bioengineering to reduce nutrient discharges into the Thames River.
- **Toronto Region Conservation Authority (TRCA) demonstrating and testing new stormwater technologies** - demonstrating leading-edge stormwater, rainwater-harvesting and water-conserving technologies and practices; and through monitoring, evaluating both the technical and financial effectiveness of these technologies. TRCA will target results to building industry, municipalities and the general public. The conservation authority is also actively involved in the revitalization of the Portlands area identified in the Toronto Waterfront Plan.

- **Kawartha Lakes Conservation Authority floating wetland technology** - demonstrating the use of floating wetland technology that improves stormwater effluent and water quality in the Kawartha Lakes.
- **Mississippi Valley Conservation, Rideau Valley Conservation Authority, South Nation Conservation with the City of Ottawa workshops and information sessions** – With the support of the City of Ottawa and the other conservation authorities, the Mississippi Valley Conservation hosted *Understanding Low Impact Development: An Information Session Designers, Approval Authorities, and Operators of Stormwater Management Systems*. The session looked at how low impact development concepts and practices can be successful in highly developed urban municipalities and how simple concepts can be incorporated into existing infrastructure so that new developments can effectively manage stormwater runoff.

### **Asset Management Planning**

Conservation Ontario and the conservation authorities are willing to quickly build on the current work with the province and municipalities to support the development of conservation authority asset management plans, particularly in rural and northern regions. These asset management plans will assist in determining immediate and long term priorities for Federal funding.

## **2. Public Safety Canada – National Disaster Mitigation Program (NDMP)**

**Building on 70 years of expertise, Conservation Ontario and conservation authorities can work with Public Safety Canada and Natural Resources Canada to develop federal floodplain mapping guidelines, providing input on natural hazard risk assessment tools, floodplain data, technologies and mapping.**

While we have found that one size does not fit all, we strongly support the development of a national floodplain management strategy and standards which will provide a baseline of protection and create cost efficiencies.

We believe the National Disaster Mitigation Program and Green Infrastructure Fund could build in many critical and successful elements to protecting life and property as well as contribute to the development of a ‘green’ economy .

Conservation authorities are looking for support from NDMP because they have not had the provincial investments into floodplain mapping and modelling. As a result, conservation authorities are relying on outdated technologies and approaches to map flood prone areas in Ontario which are shifting as a result of changing conditions created by climate change impacts.

Conservation authorities have submitted project proposals to the National Disaster Mitigation Program in June 2015 to address these challenges.

- Ontario's use of the conservation authority model has enabled a very unique, multi-partner collaboration to manage the impacts of flooding across the province. However, as mentioned earlier in this pre-budget submission, significantly reduced investment by the Ontario government since the mid-1990s has created aging infrastructure and outdated floodplain mapping.
- Recently, Conservation Ontario and the conservation authorities worked with the Ontario Ministry of Natural Resources to inventory Ontario's floodplain mapping needs. As a result, it is estimated that it will cost \$136 million to update conservation authority floodplain mapping. Investment is requested towards the development of a required strategy for eventually updating and maintaining all floodplain mapping in Ontario.
- Immediate resources are required to support the development of a risk assessment tool to prioritize where funding should be allocated in high risk areas and areas with limited municipal tax bases.

## **Conclusion**

Continued and enhanced investment in conservation authority flood management operations is critical in order to develop stronger resiliency to the increasing impacts of climate change on our natural resource systems.

The Federal government is requested to consider making investments in conservation authority green and grey infrastructure, including improved stormwater systems to diminish the impact of urban and rural floods. As well, Ontario and the conservation authorities would benefit from Federal investments in the development and implementation of flood and climate risk assessments to support updates to floodplain mapping. This work is essential to support conservation authorities' flood management operations and services.

Conservation authorities are ready to assist the Federal government to develop a comprehensive action plan that allows Canada to better predict, prepare for and respond to weather related emergencies and natural disasters.

### **For more information:**

Kim Gavine, General Manager

Conservation Ontario

120 Bayview Parkway, Newmarket ON L3Y 3W3

(Tel) 905-895-0716 ext 231 (Email) [kgavine@conservationontario.ca](mailto:kgavine@conservationontario.ca)

[www.conservationontario.ca](http://www.conservationontario.ca)