

Flood Prevention & Protection



Roles and Responsibilities of Conservation Authorities





PROTECTING PEOPLE AND PROPERTY

- Flooding is the leading cause of public emergency in Ontario
- Climate Change is creating more frequent and serious flood events, which are expected to increase
- Conservation Authorities and Ministry of Natural Resources are responsible for programs that are now integrated into the provincial emergency management framework
- Work closely with municipalities across Ontario

Impacts of Climate Change

- Experiencing more extreme weather events (heavy rain and snow, violent thunderstorms, etc.)
- Flood 'season' is now year round
- Storm runoff is greater with more intense rainfall
- Increased urban development has created more problems around flood management



CONSERVATION AUTHORITIES' MANDATE

- Protect, manage & restore Ontario's rivers, lakes, streams, woodlands, wetlands, and natural habitats
- Develop and maintain programs that protect life and property from natural hazards such as flooding and erosion
- Provide opportunities for the public to learn from, enjoy and respect our natural environment



PROTECTING PEOPLE AND PROPERTY

- Conservation Authorities own and operate \$2.7 billion dollars worth of infrastructure
- Flood management programs delivered by Conservation Authorities prevent loss of life
- Also prevent well over \$100 million in annual flood damages

HOW DO WE PROTECT PEOPLE AND PROPERTY TODAY?

- Flood plain mapping
- Regulate development in flood plains in cooperation with municipalities
- Provide planning support & advice to municipalities to minimize flood impacts / issue warnings
- Acquire lands and structures vulnerable to flooding

HOW DO WE PROTECT PEOPLE AND PROPERTY TODAY?

- Operate over 900 dams, dykes, channels and erosion control structures along rivers and shorelines
- Monitor stream flow, rainfall and snow packs in watersheds
- Model and forecast floods
- Operate flood warning system and issue flood messages

HOW DO WE PROTECT PEOPLE AND PROPERTY TODAY?

- Protect important features such as wetlands and forests which help to mitigate and prevent flooding & erosion
- Inform and education the public
- Contribute to municipal emergency planning and preparedness activities

GUIDING DOCUMENT

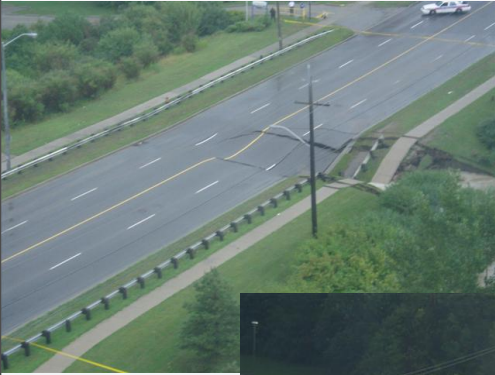
- Ontario Flood Forecasting & Warning Implementation Guidelines for Conservation Authorities and Ministry of Natural Resources
 - Program delivery & administration
 - Forecasting
 - Communications
 - Emergency Operations



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ROLES & RESPONSIBILITIES

- Shared among
 - Conservation Authorities
 - Municipalities
 - Provincial Government (OMNR)
 - Federal Government (EC)



Toronto, 2007



MUNICIPALITIES

Upon receiving a flood message from Conservation Authorities, municipalities:

- Notify municipal officials, departments & agencies according to their emergency plan
- Determine appropriate response to a flood threat and if necessary, deploy municipal services
- If required, declare a flood emergency and implement Emergency Procedures Plan
- Maintain liaison with Conservation Authority flood coordinators



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PROVINCIAL GOVERNMENT

- Ontario Ministry of Natural Resources operates & maintains a Provincial Warning System to alert Conservation Authorities of potential meteorological events that could create a flood hazard
- Provide assistance to local and regional municipalities when municipal resources are no longer adequate.

FEDERAL GOVERNMENT

- Involved once Provincial resources are exceeded
- Can provide assistance from Federal resources (e.g. Military)
 - Montreal Ice Storm
 - Red River Flooding



CA FLOOD FORECASTING & WARNING PROGRAM

- 24 hours per day / 365 days per year
- Monitor weather and watershed condition
- Flood Messages Which Can Be Issued:
 - High Water Safety Bulletin / Watershed Conditions Bulletin
 - Flood Advisory
 - Flood Warning



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