

Ministry of Transportation's Debris Management Awareness

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Ontario Ministry of Transportation

What is debris management?

- Debris management is the systematic approach to the collective planning for, and operations of demolition, clearance, removal, transport, temporary storage, segregation, reduction, and ultimately, disposal of **debris** whether generated by natural disaster or terrorist event.
 - Debris management focuses on both the short- and long-term clearance and removal of debris
 - household garbage, construction debris, vegetation debris, household hazardous waste, 'white' goods (e.g., household appliances), and electronics.

Debris management in Ontario

- Hazards include: earthquakes, floods, hurricanes, ice storms/snow storms, structural collapse, and tornados
- No framework in place
- Debris causing profiles exist; strong support and need for functional lead

Why care?

- The scope and scale of debris operations can often catch communities by surprise
- Debris removal following an event can account for more than 40% of total disaster recovery costs
 - Ministry of Municipal Affairs (MMA) accounted for approximately 50% of total disaster recovery costs after the Ice Storm (2013) due to debris operations
 - Ice Storm 1998 - over 1 million m³ of debris cleared

Ontario's experience

- No plans for debris management >75% of municipalities without a plan (2015)
- Lack of contract management available (pre-determined contracts)
- Lack of monitoring methods
- Lack of (temporary) debris sites identified
- Time spent managing ice storm debris (up to 3 years)

Debris management phases

Pre-disaster

Debris event and forecasts

Debris procurement planning

Debris management sites planning

Planning groups

(Committee, political will)

Response

Debris estimation

Resource requirements assessment (contractors)

Debris clearance

Temporary debris sites

Staff utilization

Recovery

Public outreach

Debris collection

Temporary facility installment

Debris disposal

Debris recycling

Who should be included in the debris discussion?

Municipal

- Department of Public Works
- Solid Waste
- Community Emergency Management Coordinators
- Finance & admin
- Fire & rescue
- Parks and Recreation
- Environmental department
- Land use/planning department
- Public information office/local media
- GIS
- Legal
- Code enforcement

Provincial

- Ministries of Municipal Affairs, Environment and Climate Change, Natural Resources and Forestry, Transportation, Labour (Public Services, Health & Safety Association)

Other

- Historical preservation groups
- Conservation authorities

Private sector

- Water/wastewater utility providers
- Utility & telecommunication providers

Program & Plan

- Staff roles & responsibilities
- Situation & assumptions
 - Priority areas
 - Debris forecasting, estimations
- Debris removal strategy
 - Debris collection plan (collection zones, processing considerations)
 - Establishing temporary debris management sites
 - Contracted services (timeframe, when does in-house resources get overwhelmed, special activities required)
 - Private property demolition & debris removal
- Public information plan
- Multi-jurisdictional coordination (mutual aid agreements, joint campaigns)
- Insurance & the Ministry of Municipal Affairs' disaster assistance program

Resources

- Provincial Legislation, Regulations, Policies & Procedures
 - MOECC – waste program
 - Fire Code – debris piles
 - MNRF – invasive species
 - OMAFRA – deadstock management



The need for debris contractors

- One 18 cubic yard dump truck making 10 trips a day can only remove 180 cubic yards of debris a day.
- Compare this to the projected amount of debris and number of trucks you have access to.

Will this be enough?

Questions – debris management

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