



## Background

The Durham Emergency Management Office is legislated under the *Provincial Emergency Management and Civil Protection Act* (R.S.O. 1990, Chapter E.9) with implementing an emergency management program. A community hazard identification and risk assessment forms the basis for the Emergency Management Program and must be reviewed annually as part of the compliance requirements to the Act.

The purpose of a Hazard Identification and Risk Assessment (HIRA) is to understand what risks or threats to public safety, property or the environment exist in Durham Region, and to assess their impact. Completing a HIRA determines the priorities of the Regional emergency management program. Understanding the risks allows for prevention, mitigation, preparedness, response to and recovery from these threats.

## Hazard Identification and Risk Assessment Process

There are four steps to create and maintain a HIRA:

1. Hazard Identification
2. Risk Assessment – frequency and consequence
3. Risk Analysis
4. Monitor and Review annually for change in frequency and/or consequence



## Methodology

The Hazard Identification and Risk Assessment (HIRA) completed in 2015 examined 38 potential hazards derived from provincial hazards identified by the Ontario Fire Marshal and Emergency Management, Ministry of Community Safety and Correctional Services. The level of risk for each hazard was examined, past occurrences researched and possible scenarios reviewed. The likelihood of the hazard occurring and the potential impacts of the hazard on people, property, the environment, business and finance, and critical infrastructure were examined (Provincial HIRA Workbook, 2012).

## Prioritized Risks

The 2018 annual review of the HIRA produced a prioritized list of risks for the Durham Region which was determined to be:

- Explosion / Fire
- Transportation Emergency:
  - Air
  - Rail
  - Road
  - Marine
- Energy Supply Emergency
- Severe Weather:
  - Snow Storm and Blizzard
  - Ice Storm
  - Lightning
  - Extreme Temperature (Heat or Cold)
  - Tornado, Wind Storm, Hurricane
- Major Flood
- Hazardous Materials Incident
- Human Health Emergency
- Critical Infrastructure Failure
- Nuclear Emergency