



December 5, 2007
For immediate release

ICLR releases major study
Sewer Backup: Homeowner perception and mitigative
behaviour in Edmonton and Toronto

On December 5, the Institute for Catastrophic Loss Reduction (ICLR) released a major study on public perceptions of sewer backup. The paper is based on a survey of a total of 805 homeowners in Edmonton, Alberta, and Toronto, Ontario. The intention of the research is to increase awareness and understanding of homeowner perceptions of sewer backup and homeowner risk mitigation in Canadian municipalities, and to provide practical information for municipal government staff responsible for managing basement flood risk.

According to Dan Sandink, ICLR research coordinator and author of the report: "Basement flood damages in Canadian municipalities cost governments, homeowners and insurance companies millions – and often tens of millions - of dollars each year. In August of 2005, severe rainfall in the Greater Toronto Area (GTA) caused extensive overland flood and sewer backup damages, resulting in the most costly storm in Ontario history. The event caused approximately \$500 million in insured damage - roughly half of that was from sewer backup. In 2004, 2005 and 2006, Hamilton, Ontario experienced heavy rainfall events that resulted in several cases of sewer backup, and the cities of Ottawa, Sarnia, Thunder Bay, Peterborough, Winnipeg, Edmonton, Calgary, Moncton and others have also experienced damaging urban flood events in the last 20 years."

The study investigated perceptions related to the sewer backup component of urban flooding and mitigative behaviours of homeowners in Edmonton, Alberta and Toronto, Ontario. The survey sample included both homeowners who had never experienced sewer backup damages and homeowners who had suffered sewer backup damages at some time in the past. The survey was professionally administered in January, 2007.

Results from the study suggest that homeowner risk perceptions and mitigative adjustments related to sewer backup are low. Furthermore, there existed the perception that the municipal government holds the majority of the responsibility for damages caused by sewer backup. Considering the costs of upgrading sewer systems, the unpredictability of heavy rainfall events and the expectation that heavy rainfall events will increase as a result of climate change, homeowners in Edmonton and Toronto will need to become more involved in the mitigation of sewer backup risks over the short- and medium-terms.

From the government side, municipalities should work to provide effective hazards education programs, and encourage homeowners to take measures to reduce basement flood risk. Municipalities should also be ready to provide information to homeowners in

order to take advantage of 'windows of opportunity' - the short time that follows hazard occurrences when the public is most receptive to hazards information and most willing to take actions to reduce hazard risks. Formal, ongoing programs, such as Edmonton's basement flood education program, ensure that information and materials are ready as soon as a disaster hits a community.

As part of basement flooding and sewer backup hazard education programs, homeowners should be made aware that insurance coverage for sewer backup is generally optional and can be provided at a very low cost. Homeowners who aren't sure if they have this type of coverage should be encouraged to check their policies or call their insurance brokers or insurance companies.

An increase in the intensity and frequency of heavy rainfall events caused by climate change may result in more frequent and more severe sewer backup occurrences. Thus, those who have never experienced sewer backup may experience it in the future, and those who sustained only minor damage in the past may be at risk of sustaining more severe damage in the future.

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Established in 1998 by Canada's property and casualty insurers, ICLR is an independent, not-for-profit research institute based in Toronto and at the University of Western Ontario in London, Canada. ICLR is a centre of excellence for disaster loss prevention research and education. ICLR's research staff is internationally recognized for pioneering work in a number of fields including wind and seismic engineering, atmospheric sciences, water resources engineering and economics. Multi-disciplined research is a foundation for ICLR's work to build communities more resilient to disasters.

For further information or a copy of the full report (either electronic or paper), please contact: Glenn McGillivray, Managing Director, ICLR, tel. 416/364-8677, ext. 3216, cell 416/277-5827, fax 416/364-5889, gmcgillivray@iclr.org

Sewer Backup: Homeowner perception and mitigative behaviour in Edmonton and Toronto is available for download at http://www.iclr.org/research/publications_floods.htm

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