



District of North Vancouver Geohazards Risk Management Program

Geographical location

District of North Vancouver, British Columbia

When it began or was completed

The program was initiated in the mid-1990s.

Why a Canadian geotechnical achievement?

The District of North Vancouver (DNV) provides an example of the evolving trends in urban geohazards risk management. Starting in the mid-1990s, DNV has retained geotechnical consultants (engineers and geoscientists) to assess landslides and steep creeks, and to make recommendations to reduce risks to tolerable levels. These tolerable risk levels have been established with input from technical specialists and the public.

Following a fatal landslide in 2005, DNV commissioned one of Canada's first quantitative landslide risk assessments, and formally established a natural hazards program to identify and manage risks associated with landslides, steep creek processes, floods, earthquakes, wildfires and retaining structures.

Recently, DNV completed a quantitative safety and economic risk assessment for 35 steep mountain creeks, and is developing a 10-year work plan to be integrated with its asset management program, and climate change adaptation and hazard mitigation plans.

In addition, geospatial information tools and training seminars are being developed to help convey geohazards information to planners, building inspectors and the public. Official Community Plans are being updated to incorporate the current knowledge of susceptibility to geohazards.

Submitted by

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Key References

Porter, M, Jakob, M, Savigny, KW, Fougere, S, and Morgenstern, N. 2007. **Risk management for urban flow slides in North Vancouver, Canada.** Canadian Geotechnical Conference, Ottawa, ON.

Porter, M, and Dercole, F. 2011. **The evolution of geohazard risk management in North Vancouver.** 5th Canadian Conference on Geotechnique and Natural Hazards, Kelowna, BC.

Porter, M, Jakob, M, and Holm, K. 2017. **Risk-based landslide safety assessments in Canada.** 3rd North American Symposium on Landslides, 4-8 June, Roanoke, VA, USA.

Holm, K, Jakob, M, Weatherly, H, Dercole, F, and Bridger, S. 2017. **Quantitative Steep Creek Risk Assessment, District of North Vancouver, British Columbia.** Canadian Society of Civil Engineering 23rd Canadian Hydrotechnical Conference, Vancouver, BC.

Photograph



January 2005 flow slide on Berkley Escarpment in the DNV that destroyed a residence and resulted in one fatality.