

Nomination of Terrence Rollerson, P.Geo, for the APEGBC Sustainability Award

Landslides have been one of the most environmentally damaging consequences of past logging practices. Forestry-related landslides have killed both forestry workers and members of the public, impacted fish streams and hillslopes, and damaged houses and infrastructure in a number of areas of B.C. Past logging practices were clearly not sustainable.

One of the best approaches to reducing forestry-related landslides impacts is to simply avoid harvesting on the type of terrain that is likely to have landslides. However, this approach has its own costs – the loss of the economic and social benefits that B.C. obtains from forest harvesting. Correct identification of landslide-prone terrain is crucial: overly cautious interpretations result in significant loss of economic benefits, while overly aggressive interpretations can result in unacceptable environmental costs. To address these issues, an innovative method called terrain attribute studies (TAS) is used to predict the post-logging landslide rate of terrain prior to logging. Although alternative methods of assessing slope stability are available, TAS are ideally suited to forestry, where extensive areas of remote terrain must be assessed in a cost effective manner.

As with any evolving methodology, many people and organizations have been involved in the TAS development. However, one individual – Mr. Terrence Rollerson, P.Geo. – has stood out in terms of its initial development and continued refinement. While working with MacMillan Bloedel Ltd. in the 1980s, Mr. Rollerson developed the method with studies on Vancouver Island and the Queen Charlotte Islands. After joining the Ministry of Forests, he did additional studies on Vancouver Island, the Coast Mountains and the Cascade Mountains. Mr. Rollerson provided advice for TAS in the Prince George and Nelson areas, which extended the coastal study method to the interior of B.C. Now a consultant with Golder Associates Ltd., Terry continues to provide advice on TAS, most recently a comparison of helicopter logged areas vs. cable yarded areas. The list of TAS publications and conferences that Mr. Rollerson has contributed to is lengthy.

TAS quantify post-logging landslide likelihood by identifying important terrain attributes that are associated with landslides. This analysis is vital for calibrating terrain stability mapping, refining criteria for on-site assessments for terrain stability, and providing a basis for forest management decisions. These studies have markedly reduced the incidence of forestry related landslides and thus reduced the environmental impact of forest development. At the same time, terrain that is unlikely to have post-logging landslides becomes available for harvesting, and thus maximizes economic and social benefits.

The TAS approach to landslide management has received wide attention and support within the forest industry and we believe that it is appropriate for APEGBC to recognize Mr. Rollerson's contribution. Terry's combination of disciplined scientific research and detailed knowledge of the forest industry has resulted in a scientifically proven, practical method that has wide applications to the forest industry. Mr. Rollerson's work is an important aspect of the B.C. forest industry's commitment to sustainability.

Nominated by:
Tom Millard, P.Geo.
Brent Ward, P.Geo.
Mike Wise, P.Eng.