

Mayor's Report

Burnaby Mountain's Geologic Faults & KMC's Westridge Terminal

Residents may recall that in November 2012 [Belcarra Council wrote](#) to [Kinder Morgan Canada](#) (KMC) regarding emergency preparedness planning related to the [Trans Mountain Pipeline Expansion Project](#) (TMEP), and raised a specific concern regarding the location of KMC's [Westridge Marine Terminal](#) (WMT) on top of a geologic fault zone. The scenario of concern is a seismic event which could rupture KMC's oil pipeline in the vicinity of the WMT, similar to the event that sheared-off the north flank of Burnaby Mountain around 15,000 years ago.

As a result of Council's letter, KMC engaged the geotechnical consulting firm [BGC Engineering](#) (BGC) to review the relevant geological studies of the Lower Mainland and Burnaby Mountain that have been conducted over the past 90 years ([see report from BGC to KMC](#)). BGC's research and review appears to be quite thorough, and certainly provides enlightening information for communities such as Belcarra that are close to Burnaby Mountain.

The [BGC presentation](#) provides the following conclusions:

- At present, there are no known active faults in the Lower Mainland; however, that does not mean there are no active faults. Recent work in the U.S. has revealed active faults within 5 km of Canada's border, and it is possible that given comparable research active faults could be found north of the border.
- Although many researchers have invoked faults to explain geological discontinuities around Burnaby Mountain, there is not enough evidence to conclude that the faults purported to exist are real or active.

The [BGC presentation](#) proposes the following work as "next steps":

- Further geological and geotechnical investigation to understand geologic processes and hazards around Burnaby Mountain and effect on KMC facilities to be conducted as part of the detailed design phase of the TMEP.
- The proposed investigations to include bedrock and surficial geological mapping, a compilation of historical geological and geotechnical information around the study area, the use of available surface and subsurface imaging technology such as [Light Detection and Ranging](#) (LIDAR) and geophysics, and other techniques.

The author of the summary report, [Dr. Alex Baumgard](#), has been invited to the Belcarra Council meeting on September 9th to speak to the [BGC presentation](#) and answer questions.

This geotechnical work will feed into both design considerations for the proposed expansion of the WMT and the KMC emergency preparedness planning process. Belcarra Council will continue to monitor these important activities, ask questions of KMC and others, and continue to provide input on behalf of the Belcarra community.

Ralph Drew
Mayor