

Site 23 – Valleyview Trail

This site consists of a steep colluvium slope above the Valleyview Trail, a side-road parallel to and approximately 100 m upslope of Highway 40 in this area. The source of the colluvium is rockfall from steep slopes on the south ridge of Gap Mountain above the road. As shown on Photo 1, portions of the slope above the road that are blanketed with colluvium remain unvegetated, which suggests that debris may be actively accumulating in these areas and/or the blanket of colluvium is progressively creeping downslope towards the road.

There were no signs of debris along the Valleyview Trail road at the time of the site inspections in July and August 2005. Furthermore, it is judged unlikely that even a major rockfall from the slopes above the road would deposit debris onto the Valleyview Trail for the following reasons:

- The road elevation is approximately 3 to 5 m above the natural slope face at the toe of the road embankment sideslope.
- The portion of the slope between the road and the downslope limit of the open colluvium slope is thickly vegetated with mature trees. It is judged that any large rocks rolling down towards the road would be caught amongst the trees.

AMEC recommends the following Risk Level factors for this site using the rock fall frequency-severity matrix:

- Probability Factor of 12 based on the assumption that multiple rockfalls occur every year on the steep slopes above the Valleyview Trail.
- Consequence Factor of 1 based on no visual evidence of past rockfalls reaching the Valleyview Trail.

Therefore, the recommended Risk Level for this site along the Valleyview Trail is 12. Given that the Valleyview Trail road embankment essentially acts as a protective berm for Highway 40, the Risk Level for the adjacent segment of Highway 40 is judged to be negligible.

No further work is recommended for this site.

Alberta Infrastructure and Transportation Geohazards Review – Highway 40/Highway 541 Corridor CG25211 April 2006



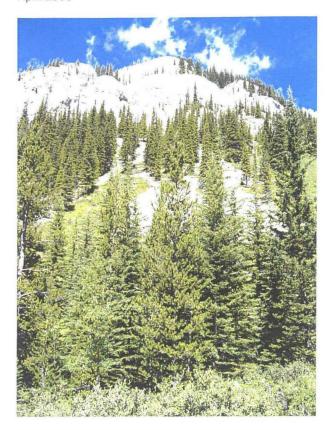


Photo 1 (top) – Facing upslope from the Valleyview Trail right-of-way. The open slopes above the road are blanketed with rockfall debris originating from the steep rock slopes on the south ridge of Gap Mountain, visible at the top of the photo. Portions of these slopes remain unvegetated, which suggests that debris may be deposited on an ongoing basis and/or the blanket of debris is creeping downslope over time. There were no signs of debris reaching the Valleyview Trail. The Highway 40 right-of-way below this segment of the Valleyview Trail is approximately 100 m further downslope.