

Slide Name: (GP 15b) SH 727:02 Ksituan River

Inspection Date: May 4, 2005

Inspection by: Alberta Infrastructure & Transportation and EBA staff listed on Page 1

1.0 BACKGROUND

This stretch of highway sidehill fill alignment along the north valley slope of the Ksituan River was widened in 1999 and obvious slide movements were not reported. Since then, the highway was observed to have progressively deteriorated during the past 5 years.

2.0 OBSERVATIONS

- Along the upper portion of the valley slope:
 - 3 locations of sliding of the sidehill fill has occurred and become noticeable from the roadway elevation. The slide areas, each measured about 50 m in width (along the shoulder edge) and toes onto a bench of the valley slope (which could be a previous local road). Signs of groundwater seepage and willow growth is commonly observed along the toe area of the slide failures and treeline edge of right-of-way. The failures might have gradually retrogressed and become noticeable once they migrated to the highway shoulder. The slides were previously not noticeable because they were located below the highway and difficult to observe from the roadway.
 - 2 locations of backslope failures entailing: (i) an erosion gully formed by flow from upland farm drainage outfall; (ii) a backslope slide approximately 300 m downgrade from the erosion gully.

3.0 RISK ASSESSMENT

PF (12) * CF (5) = 60

4.0 ACTION

- The significant deterioration and manifestation of the sideslope slides will eventually impact highway safety and operation. The options of either slide repair or realignment of this roadway should be considered promptly.
- The proposed realignment should include bypassing the Ksituan River slide and selecting a new crossing area.
- Continue visual monitoring of this area. Maintenance forces are requested to record details of resurfacing (gravel placement) and any occurrence of settlement in the future.
- The site should be inspected in 2006.