PART B: 2001 SITE VISIT
LANDSLIDE RISK ASSESSMENT
PEACE REGION (PEACE RIVER VALLEY/HIGH LEVEL)

SITE PH11: WHITEMUD RIVER CROSSING

LEGAL LOCATION: 88-21-W5M

Location along Highway: Station 42+600 to 46+000

AI FILE: SH743:02

Date of Site Visit: 24 May 2001

The road was not surfaced and the traffic volume appeared low.

Station 42+600, Embankment Slide

AMEC is in the process of preparing remedial measures for this slide.

Significant Observations

Figure 1 presents a plan view of the slide.

- This is a surficial failure of a fill slope at the upstream side of a culvert crossing.
- The fill slope was steep (2H:1V or steeper).
- The slide mass appeared wet.
- The toe of failed mass was encroaching on the culvert inlet.
- The road is a low-traffic unsurfaced secondary highway.
- The slide is approximately 30 m wide and 40 m long.
- The guard rail had been moved towards the center of the road, such that the scarp of the slide was outside the guard rail.
- Slumped material had encroached on the creek bed and was being eroded. The material may have blocked the creek, because there were signs of a water level approximately 0.5 m above the water level at the time of the site visit.

Changes from Previous Visits

The guard rail had been moved, but it did not appear that the scarp had retrogressed significantly. Additional slumping had occurred.

Discussion

This appears to be a failure of the fill slope, which was relatively steep, possibly with a high water table.

Assessment

Risk Assessment
PF(13) * CF(5) = **65.** The slide is active and has retrogressed onto the roadway. The road embankment is narrow, so the road can't be detoured away from the slide. This site is a hazard to drivers. It is intended to implement remedial measures at this site.

Recommendations

It is recommended that remedial measures be implemented as soon as possible.

Station 42+650

No changes were reported at this site, the site was not inspected.

No movement observed at this slide.

The outlet of the culvert at Station 42+600, which was shown as being damaged by the slide, was repaired and gabion mats were placed at the outlet.

Station 43+200

No changes were reported at this site, the site was not inspected.

At this location the road has been shifted into the cut slope, after a failure that resulted in loss of the road. The cut slope is in shale. It is very steep. An accumulation of loose shale has to be removed once a year typically. It is recommended that visual monitoring continue at this site.

Station 44+700 to 45+000

No changes were reported at this site, the site was not inspected.

The road has been shifted uphill of the slide area. Grabens indicate that significant movement has occurred here; however, none of the features appeared recent. A toe was not identified. The slope inclinometers could not be located. It is recommended that visual monitoring continue at this site.

Station 45+800 to 46+000

No changes were reported at this site, the site was not inspected.

Relatively fresh scarps were observed uphill of a culvert outlet halfway down the slope below the road. The slope inclinometers were located. There appears to be no immediate threat to the road. It is recommended that visual monitoring continue at this site.

Judah Hill - Photo 1 – Station 57+700, Slide #1 – Crack in Road – May 2001