

### **Site 32 – Lineham Ridge Creek I**

This site consists of a creek crossing the highway along the southwest flank of Lineham Ridge. This creek channel was flagged as possibly having debris flow potential during the airphoto review.

The creek crossing at the highway was inspected in August 2005. There was rocky soil exposed along the segment of the creek channel immediately above the road (Photo 1) indicating that higher flow volumes earlier in the year had caused some channel erosion just above the culvert inlet. Further upslope (into the trees above the road, as seen on Photo 1), the creek channel was relatively well-defined and incised into the natural slope face. There were no debris levees visible along the channel. The segment of the channel with visible erosion just above the highway flows across a cutslope along the northeast side of the highway that is approximately 2 to 3 m high. The inclination of the cutslope is greater than the creek channel gradient on the natural slope face further upslope, therefore the visible channel erosion is the result of the oversteepening of this short segment of the channel.

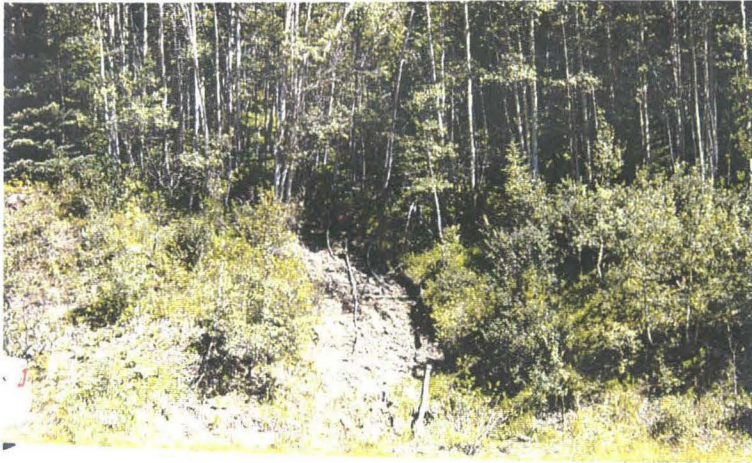
Aside from the erosion described above, there were no other issues noted during the inspection. The culvert was clear of debris.

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

- Probability Factor of 1 based on the appearance of the creek channel. It is judged that the probability of a debris flow along this channel is very low.
- Consequence Factor of 4 because if a debris flow occurred along this channel, the existing culvert and ditch would not be sufficient to contain and convey the debris below the road and partial closure of the road for debris clearing would likely be required.

Therefore, the recommended Risk Level for this site is 4.

No additional work is recommended for this site.



**Photo 1** (top) – Facing upslope across the highway at the creek crossing. The exposed soil along the creek channel indicates recent erosion (i.e. during 2005). The culvert was clear of debris and there were no signs of problems with the culvert capacity or debris accumulation.