



Division of Mines and Mineral Resources — Report 1991/38

## Landslides at Kayena and Rosevears Drive

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### **Kayena**

A landslide at Kayena has occurred on a steep bank to the River Tamar. The bank slopes at some 30–35° and is four to five metres high. The landslip has extended up to the edge of Camms Road and is about five metres across at its widest extent.

The material in the slide comprises mainly soil and basalt boulders, with grey sand and sandy clay towards the bottom of the slide.

A bench occurs above the road and this probably represents an old landslide movement, i.e. the new movement has occurred in the toe region of an old landslide.

A drain on the inland side of the road had been partially blocked where there is a culvert under an access track to a house. It is probable that during rain stormwater cannot get through the culvert fast enough and floods across the road to the area where the landslide has occurred. The situation may be improved if the drain above the culvert is cut a little more deeply and the culvert is kept free of rubbish.

Remedial works on the landslide will be fairly difficult because of its location. Piling to support the road is a possibility but would be expensive. Placement of large rocks, particularly to the lower part of the slope, would have a stabilising effect. Widening the road by

trimming the cutting, ensuring that road drainage cannot flow down where the landslide has occurred, and tree planting on the landslide may be an effective means of dealing with the problem.

### **Rosevears Drive**

A landslide at Rosevears Drive affects the access road to a property. At the point where the landslide occurs the access road parallels Rosevears Drive. The landslide has occurred in a natural seepage area and drainage passes through the area. Some drainage measures have been installed but drainage discharges on the top of the bank above road level. It would be preferable if this drain was extended to the road drain so that it does not saturate the soil making up the slide mass. Any measures that would ensure that the slope above the road remains dry will have a stabilising effect. Some tree planting may be possible to aid in keeping moisture levels low and the root structure will add some strength to the soil.

Tertiary-age clays are involved in the landslide and grey plastic clay can be seen at road level. It appears that only the embankment above road level is involved in the movement. If drainage/tree planting measures do not prevent further movement, supporting structures may be necessary.

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