

**TASMANIA DEPARTMENT OF MINES
UNPUBLISHED REPORT 1983/74**

Land movement along Rosevears Drive

by W. L. Matthews

The Municipality of Beaconsfield expressed concern in relation to land movement at Rosevears Drive and requested that the Department of Mines investigate the problem.

Rosevears Drive, just to the north of its junction with McEwans Road, was examined as requested. At this point, like many other sections along the West Tamar, the road extends along an embankment up to about three metres high directly above river level as well as being at the toe of a slope. These areas are maintained in a moist condition for longer periods than areas further up the slope. In addition to being kept wet at river level by tides, the lower parts of slopes have the water table near the surface for longer after rain periods than higher areas. The material on which the road is built is made up of clay and sandy clay of Tertiary age which softens and has lower strength when wet.

The road has an uneven surface for a distance of over 150 m and much of the hummocky nature is along the river side of the road. The damage does not seem to have developed as a result of land movements further up the slope although signs of past movement are present at higher levels. The hummocky surface on the road is probably largely due to loading of softened clay and perhaps small mass movements from road to river level.

The use of piles is a possible method of preventing slumping and settlement of the road. In other parts along the West Tamar where slumps have occurred on the embankment from the road to the river, piling appears to have been a satisfactory solution at most points. If material from upslope of the road becomes involved in the movement it is unlikely that piles would withstand the force. Drained barriers between the piles may be necessary to prevent material squeezing past.

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