

**TASMANIA DEPARTMENT OF MINES
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Slope stability at Foreshore Road, Deviot

by W. R. Moore

A house and land at Foreshore Road, Deviot, were examined on 18 December.

From the surface inspection both the house block and the adjoining block to the south are considered to be in a Zone IV landslide area (a zone IV area is defined as an area adjoining an active landslide or old landslide). A landslide in Deviot, where a house was destroyed in 1970, is located close by, immediately south of the Deviot Hall. This resulted in this area of Deviot being proclaimed in 1971 under the *Beauty Point Landslip Act 1970*. The proclaimed area defined by this act has been plotted on the Beaconsfield 1:25 000 scale Lands and Survey map series (fig. 1) and the house and its adjoining block appear to be just within the southern boundary of the proclaimed area. The precise location of the blocks in relation to the proclaimed area should be checked on the ground to see if the above location interpretation is correct as it may affect the block's valuation.

The blocks are situated on the steep river side of Foreshore Road with slopes of 4–8° adjoining the road. On the northern block the 8° slope is approximately 20 m wide and it steepens to 11° for 30 m to the rear porch of the house. The house is situated on a 13° slope which increases to 20° down the front lawn facing the river bank. The house and the front lawn are 14 m and 22 m wide. The river bank is approximately five metres wide with a 29° slope. Similar slopes and widths are present on the southern block, except the middle order slopes are wider and lower, averaging 15°.

The soils on the blocks are grey organic silts (OH) but some red clay soil (CH) and basalt boulders 1-2 metres in size were present on the surface. The blocks are thought to be underlain by clay of the Launceston Beds of Tertiary age. No surface sign of downslope translational movements were found on the blocks. The house has concrete foundations and vertical weatherboards, with no cracking being found on the concrete foundation walls and no tilting downslope of any walls of the house was observed. No cracks were present on the front porch of the house. The surrounding path was not cracked, with only one small crack found on the concrete back porch. All of this indicates that the house is remarkably stable and no translational downslope movement is thought to have occurred even though the house appears to have been standing for many years.

This stability has no doubt been helped by the profusion of trees and shrubs on both blocks and obviously good maintenance and attention to stormwater drainage. Given that excess water is kept off both blocks, the trees and shrubs are retained, and the attention to drainage and river bank erosion is maintained, the risk of slope failure can be reduced. Both blocks should be considered as a single unit as they are at present. Any future purchaser would be ill-advised to plan for future subdivision with the aim of building another house on the southern block.

Because of the block's location, steepness and likelihood of it being underlain by plastic clays, the risk of slope failure will always be present and cannot be eliminated even with all the above precautions. The blocks are considered to be in a Zone IV landslide risk area but the risk of slope failure is, in the opinion of the writer, no greater on these two blocks than the neighbouring blocks in Deviot and probably no greater than any other Zone IV area in the Deviot region on the banks of the River Tamar. The only difference is that they appear to be in the proclaimed area of the 1970 Beauty Point Landslip Act.

[14 January 1985]

