

**TASMANIA DEPARTMENT OF MINES
UNPUBLISHED REPORT 1984/89**

Investigation of land at Windermere Road, Windermere

by D. J. Sloane

Lots 1 and 2 at Windermere, situated between Windermere Road and the River Tamar, have been inspected to determine their suitability for construction of a house. Lot 1 is assumed to be the location of the ruins of a previous house; these ruins show considerable evidence of failure, with extensive failure cracks and displacements. The previous garage area has a large central 'bulge' with the river-side foundations displaced vertically downward compared with those on the Windermere Road side. The allotment was obviously originally sloping at about 12° as the continuation of the slope segment is evident on either side. To the west, a steep break of slope is evident with slopes of between 12° and 16°. The slope segment appears partially arcuate in plan. A steep bank is also evident on Lot 2, sloping at about 13°. The remainder of Lot 2 slopes between 7° and 8° as a regional slope continuing onto Lots 3 and 4.

Highly plastic clay is exposed on the foreshore and in the adjacent Windermere Road embankment. The exposure in the road embankment has heavy desiccation cracking, indicating a high shrinkage potential. An arcuate scarp is evident in the fields on the upper side of the road and adjacent to the area under investigation.

During the period 1971 to 1974 the area was subject to several investigations and reports. In view of the previous reports, the condition of the underlying clay, the proximity to possible landslip features, the steeply sloping nature of the region, and the history of house failure it can only be concluded that the area is of questionable stability. Inadequate design appears to have been a major factor resulting in the destruction of the previous house. Instability may also be due to landslip movement and/or the adverse properties of the underlying clay.

In summary it is advised that no buildings should be constructed on Lots 1 or 2. It is considered that further investigations would be expensive and would be unlikely to alter our advice.

[27 March 1984]

