

**TASMANIA DEPARTMENT OF MINES
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Slope stability of a proposed subdivision at Windermere

by W. R. Moore

This report confirms the conclusions of an on-site inspection of a proposed subdivision at Windermere. The proposed subdivision has three lots:

1. a lot behind the trees at the rear of Causby's house;
2. a lot from below the waterhole down to Windermere Road and between Causby's and Shield's driveways;
3. a central lot on which Causby's house is built.

Site 1

The lot behind the house is situated on a high flat ledge with a steep slope covered by trees down to the back lawn of Causby's house. This ledge is either formed by a basalt flow or is the very old toe area of a large rock fall from Gaunts Hill. It is considered to be in a Zone III landslide risk area or Zone II area, depending on which geological interpretation is correct. This will be determined by future subsurface investigation, probably diamond drilling.

Provided only one house is to be built on this lot and it is positioned in the area defined on-site or the flat area, and the septic tank overflow is located in the area indicated, no subsurface investigation will be required. The septic tank should be restricted so that it does not flow down the steep slope at the front of the block.

Site 2

The long even sloping lot down to Windermere Road has a high potential for slope instability. The safest house site, with the exclusion of the flat area close to the road, is high on the slope towards the rear of the block near the waterhole level. This was the area indicated during the inspection.

This house site would require a deep back-hoe trench (3 m) in order to examine the underlying clay. The clay would need to be tested, particularly a shear box test in the Department of Mines soil laboratory. A slope stability analysis can be made on the basis of these results.

Three or four shallow holes would need to be dug in front of the dam to see if it leaks, these preferably being left open for three to four days.

Site 3

The house block requires no further slope stability comment, as this is where Causby's house is located, unless the present septic tank and drain have to be moved and placed at the rear of the existing house because of the proposed subdivision.

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