

UR1975-72

Examination of a proposed subdivision at Burnie.

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The Housing Department requested advice on the stability of land it is considering purchasing for a subdivision south of Burnie [DQ050530]. The area comprises 180 ha of land located between Three Mile Line Road Mooreville Road and West Mooreville Road.

GEOLOGY

The land forms part of a dissected plateau, the streams running through the area being deeply entrenched. Cooe Creek forms the western boundary of the area while a tributary forms part of the eastern boundary. The land is underlain mainly by deeply weathered Tertiary basalt which overlies Precambrian quartzite and slate. The uneven nature of the pre-basalt surface has resulted in the Precambrian rocks cropping out on some of the higher land, while basalt crops out in the stream beds at some places. The contact between the basalt and the Precambrian rocks is usually covered with soil and scree and it has been impossible to determine whether Tertiary sediments occur beneath the basalt as in other parts of the Burnie area. Small areas of Tertiary greybilly, a silicified sand and breccia, occur at some places where Precambrian rocks crop out near the tops of hills.

SLOPE STABILITY

The area is deeply dissected by the streams and there is some danger of unstable conditions developing where weathered basalt occurs on the steeper slopes. There is evidence of old landslips at some places (fig. 1) but there is no evidence of any recent movement. The largest of the old slips occurs near the centre of the area, to the east of Cooe Creek, and has affected land as far as the creek. Part of the hummocky land associated with the more northerly slip is reasonably flat, but much of area surrounding these slips would be risky to develop. Two large slips occur east of the tributary creek outside the area proposed for purchase.

Two small slips occur in the north of the area and the zones surrounding these could only be developed with some risk. Some features which may be old slips are shown on Figure 1 together with steep zones of land (10-20° slope) underlain by basalt. Most of these slopes have a small vertical height, while some are 20-30 m high. One slope on the eastern side (fig. 1, A) is about 50 m high.

CONCLUSIONS

Particular care should be taken in the development of this area, as large excavations and poor drainage could initiate slips. Area A with its high steep slopes could possibly be included with the zones where there is a definite risk of instability although there is no indication of slips having occurred there.

Land subject to slip in the Burnie area has yet to be recommended for proclamation as landslip risk zones. If this work is undertaken in the future, it is likely that much of the area surrounding the old slips would be included in landslip Zone A and at least some of the steep land in landslip Zone B.

[28 November 1975]

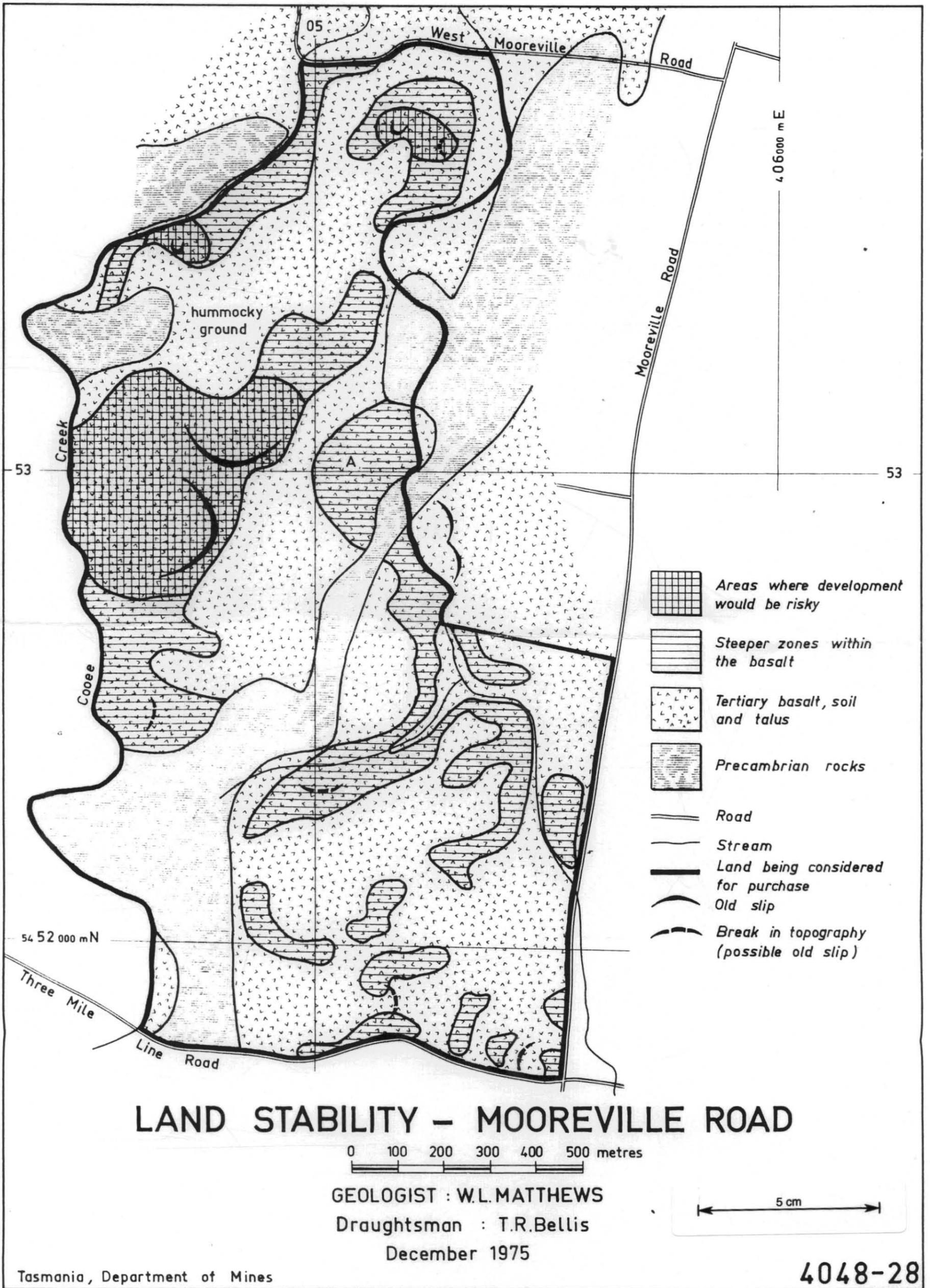


Figure 1