

Mrs J. Young of Devonport requested advice on the stability of about 0.6 ha of land at Don [DQ427412] on which it is intended to build a house. The land is situated on the west side of the Don River about 600 m north of the Bass Highway bridge. It has a narrow frontage on to Cutts Road.

RELIEF AND GEOLOGY

The land lies on the slopes between a basalt plateau and the Don River. The land surface of the block is quite irregular with steep slopes and some flatter areas. A deep valley extends through part of the eastern portion of the land (fig. 1).

The slope down from Cutts Road is underlain by weathered Tertiary basalt or soil derived from the weathering of basalt. The remainder of the land is underlain by Permian mudstone or talus from the weathering of Permian mudstone. The mudstone is grey to brown, poorly bedded, contains occasional quartzite pebbles and has a hackly fracture.

DISCUSSION OF STABILITY

Landslides are known to have occurred in areas underlain by both basalt and Permian mudstone around Devonport. There are no obvious landslips on the land examined but if the land is developed, care should be taken in siting the house. The steep basalt slope up to Cutts Road should not be built on as disturbance of this area could initiate a slip. Talus has probably accumulated on the steep slopes underlain by Permian mudstone and development on these slopes could also result in instability. The one area where there seems little risk of instability is on top of a small ridge in the middle of the block and just to the west of the deep valley on the eastern section of the land. The area is underlain by hard mudstone which crops out near the top of the ridge.

CONCLUSIONS

A house could be built with reasonable safety on a small ridge in the middle of the block. A steep slope underlain by weathered basalt on the western part of the land could become unstable if developed.

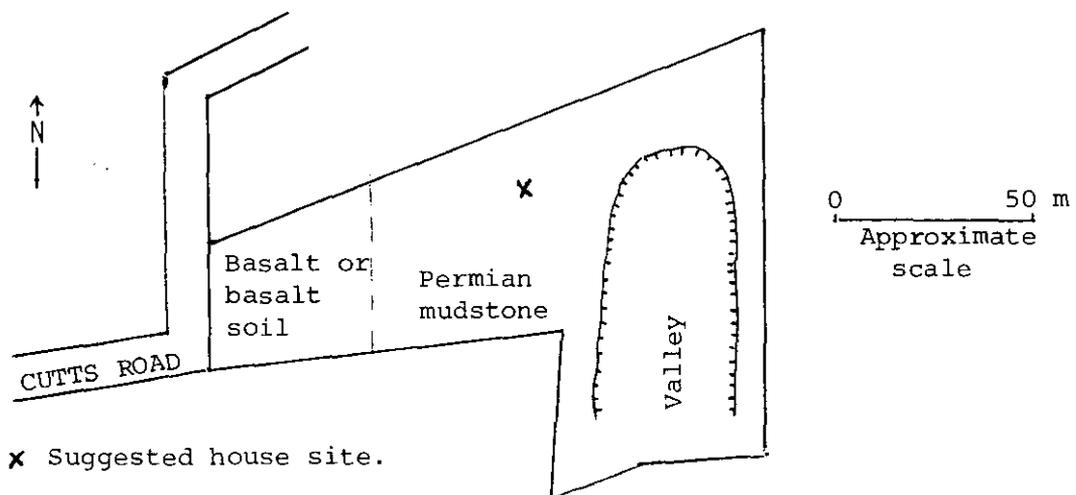


Figure 1. Sketch plan of land.

[3 January 1975]

5 cm