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Groundwater investigations at Kettering

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Messrs Taylor and Malone own adjoining properties (a total area of 2 ha) adjoining Ferry Road at Kettering [EN212246]. They require additional domestic and garden water supplies to supplement those at present obtained from roof tanks and dams. The land slopes about 10° to the north towards Little Oyster Cove Bay, and the properties lie almost 10-15 m above, and 50 m inland from the foreshore.

The predominant rock type on Kettering Point is Jurassic dolerite. Both properties are entirely underlain by this material, which also crops out at sea level along the northern side of the peninsula. A thin veneer of Permian sandstone overlies the dolerite near the Channel Highway [EN 203245] and is also exposed on the foreshore at the south-eastern end of the point.

Because of its limited extent, the sandstone is not hydrologically significant in the area. The dolerite, although abundant, is not considered a favourable reservoir for groundwater. The water is contained within fractures in the host rock, and the success or failure of a bore depends entirely on the size, number and orientation of fractures intersected during drilling. Nothing is known of the degree of fracturing or of chemical weathering of the dolerite beneath the properties examined. In addition any water table present is likely to be deep because of the limited catchment area of the peninsula. A high degree of risk is therefore involved in drilling the dolerite, and boring is not recommended. Rather the utilisation of surface supplies should be increased by constructing additional dams and tanks.

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