

UR 1957/34

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22nd February, 1957

MEMORANDUMWATER SUPPLY FOR "MORNINGTON" WARRANE.

A property known as "Mornington" situated on the Cambridge Road near Warrane was examined for a water supply for this mixed dairy farm.

The rocks underlying this property are mainly Permian mudstone, siltstone, and some sandstone, all of which are not very porous, and not good aquifers. Some dolerite occurs mainly as floaters in the south-western portion. The dolerite is not favourably regarded as an aquifer. Gravels are quite wide-spread in the "flats" and gullies. These gravels constitute the only reliable source of water on the property.

The supply could be obtained by either a bore in the "flat" near the side-road that is the western fence, or a dam (with walls 10 ft. to 15 ft. high) in the gully (where there is a small earth tank at present) immediately south of the old orchard.

Of these two methods the dam should be the more desirable because, though it and a bore would both give a reliable supply, the dam would be cheaper to construct and would enable a gravity flow to be used to reticulate the water, whereas pumping of some sort is necessary with a bore. The dam could be constructed quickly while there is a considerable time delay on availability of the Departmental boring plants.

If the dam be chosen, it is suggested that the gully be "cleaned" out down to bedrock at the position of the proposed dam and that this "cleaning" out extend up the sides of the gully at the dam and further up the gully behind the dam site. This would ensure maximum use of the underflow (i.e. seepage) in the gravels and prevent any seepage beneath the dam which could cause damage to the dam. If the dam is to be an earth wall type an impervious core of clay or concrete to stop seepage is suggested.

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GEOLOGIST.

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