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23. GEOLOGICAL AND HYDROLOGICAL CONDITIONS AT TOMAHAWK BEACH SUBDIVISION

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In view of the planned development of the Tomahawk Beach area, 20 miles N of Winnaleah, an examination was made of the area to assess the geology, water table conditions and siting of conveniences in order to find suitable sites and to prevent groundwater contamination.

The area under consideration lies S and E of the Tomahawk River.

GEOLOGY

The principal rock type is granite which outcrops over much of the area. Metamorphosed sediments of the Mathinna Beds occur only on the river bank near the footbridge. Both rock types are covered to some extent by beach sand.

Observations on the outcrop distribution and resistivity soundings show that the depth to solid rock is never more than 10 feet, except beneath the dune immediately behind the beach.

HYDROLOGY

The water table is nearly horizontal and very close to the surface. At the time of examination much of the area was swampy and it is unlikely that the depth to water exceeded 5 feet. This might be expected to deepen to perhaps 10 feet in mid-summer.

CONCLUSIONS

Most of the area is unsuitable for toilets of the type proposed (deep hole) because:—

1. The water table is very shallow, preventing disposal and permitting extensive groundwater contamination.
2. The water table slope is such that escape of fluids is too slow and stagnation is likely.
3. Hard and relatively impermeable rock will be encountered at shallow depth, making drilling expensive and preventing adequate disposal.

The only possibility for a suitable site lies on the crest of the dune about 50 yards S of the footbridge. This is well away from the present dwellings, and would also ensure sufficient depth of permeable material before striking rock. Contamination should also be minimal