

GEOLOGICAL FEATURES AFFECTING THE PROPOSED SEWERAGE
SCHEME FOR THE TOWNS OF MOONAH AND GLENORCHY

INTRODUCTION:

At the request of the Glenorchy Council a brief examination of the geological features of the area embraced within the Proposed Sewerage Scheme was undertaken in order to provide essential information regarding rock types and exposures, depths of soil etc., to assist the engineers in making their preliminary estimates as to the cost of the scheme.

The geological mapping was based on a topographical map prepared by the Council's surveyor, a copy of which is appended hereto.

G E O L O G Y

SEDIMENTARY

PERMO-CARBONIFEROUS:

A limited occurrence of rocks belonging to this system, consisting essentially of mudstones, outcrop south of the Main Road near Islet Rivulet and extends in a general south-westerly direction to Humphreys Rivulet. This occurrence represents approximately five per cent of the whole area.

TRIASSIC:

A small exposure, approximately five per cent of the total area, of typical sandstones of the Ross series of this system, occurs east and south of the Electrolytic Zinc Company's works at Risdon. The rock outcrops freely.

TERTIARY:

At least fifty per cent of the area has been mapped as belonging to this period. The sediments consist of clays, sands and loosely compacted sandstones etc. which can be divided into

- (a) Pre-basaltic
- (b) Post-basaltic

Generally the Pre-basaltic sediments consist of clays, sandstones and sands etc. which may attain considerable thickness, whereas the Post-Basaltic sediments consists of fine sands and the depth being comparatively shallow, probably ten to fifteen feet.

Pre-basaltic areas occur along the foreshore of the River Derwent in the vicinity of Humphreys Rivulet and New Town Bay; elsewhere the sediments are most probably Post-basaltic to Recent, and consequently, relatively shallow in depth.

IGNEOUS

MESOZOIC:

Typical dolerite occupies at least thirty-five per cent of the surface and underlies a much greater proportion at no great depth. It occurs in two distinct areas, one, south-west of the Main Road, extending from Creek Road to just beyond Windsor Street; and the other, east from Prince of Wales Bay to New Town Bay. The depression between these two areas being filled with Tertiary basalt and sands etc.

TERTIARY:

Basalts belonging to this system occupy at least ten per cent of the total surface. They occur in two areas; one forms saddle between the two main masses of dolerite and outcrops freely in the vicinity of the Bowen Road State School; while the other occurs to the west of Prince of Wales Bay.

There appear to be two distinct types of basalt, that at Bowen Road being a light coloured, fine to medium grained rock, and, generally, slightly vesicular, while the other type is a dark grey, highly vesicular and scoriaceous looking rock.

CONCLUSIONS

The brief examination of the area embraced within the Proposed Sewerage reveals the following rock distribution.

Tertiary sands, clays etc. overlying with varying thicknesses dolerite and mudstone	50 per cent
Tertiary basalt, hard rock within approximately six feet	10 " "
Triassic sandstones all rock cutting	5 " "
Mesozoic dolerite, all very hard rock cutting	30 " "
Permo-Carboniferous mudstone all rock cutting	5 " "

The proposed site of the Treatment works is located on a dolerite outcrop, covered by a few inches of soil only, and any excavations necessary will be hard rock cutting.

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