

The parties to the inquiry were represented as follows :—

Taieri County Council, by Mr. Hosking, K.C.

Dunedin City Council, by Mr. Richards and also by Mr. J. MacGregor, solicitor.

Dunedin Drainage Board, by Mr. Gore and also by Mr. Stevens, solicitor.

Green Island Borough, by Mr. Geddes, Mayor.

Mornington Borough, Roslyn Borough, and Maori Hill Borough, by Messrs. Duncan and MacGregor, solicitors.

Health Department, by Dr. Ogston.

A copy of the notes of evidence and of the contentions of parties will be found in the addendum to this report.

The facts of this case will be fully set forth in dealing with each of its four divisions, and as this report must (in the nature of the case) be somewhat lengthy I will without further remark now deal with each division separately.

DIVISION I.—THE POLLUTION OF THE KAIKORAI RIVER.

The Kaikorai River is a small stream that takes its rise from several places in the high lands at the head or sides of the Kaikorai Valley. The main stream commences in the hills near the Dunedin Asylum grounds, and it flows down a subsidiary valley until it is joined, not far from Ross and Glendining's Roslyn Woollen-mills, in the Borough of Roslyn, by another branch of the stream that takes its rise within or in the vicinity of the Boroughs of Mornington and Maori Hill. The stream then flows right down the valley until it loses itself in a swamp that exists in the vicinity of the Borough of Green Island; and the waters from the swamp ultimately discharge themselves into the sea, which is separated from the swamp by a belt of shifting sand. The position of the river and its tributaries is shown on the map included in the addendum to this report (Exhibit I).

The main branch of the river, from the Asylum grounds to where it is joined by the other branch from Maori Hill, &c., near the Roslyn Mills, is comparatively pure and clean. It may not be sufficiently pure for human consumption, as there are some houses not far from its banks, and cattle graze in the adjacent paddocks along part of its course; but it is no doubt pure enough for all necessary purposes other than for human consumption. I saw it after several days' continuous rain, and even then it was almost colourless; but the tributary that joined it from the vicinity of Maori Hill was very dirty, thick, and filthy, and from the point where this tributary joins the main stream, near the Roslyn Mills, right down to where it loses itself in the swamp near the sea, it is nothing but an open sewer carrying sewage, factory refuse, and filth of all descriptions, which are, I should consider, highly detrimental to health, and which are likely to lead to very serious results should an epidemic start in the vicinity. It is, however, right to say that no evidence was adduced to show that any serious outbreak of disease had so far been traced to the stream; but evidence was brought which amply proved the filthy condition of the stream. It was also proved that its filthy condition and the foul smell that sometimes comes from it in the Green Island Borough have a very prejudicial effect on the value of land in that district.

It was also proved that the dirty water of this stream is used over and over again for manufacturing purposes, and I can only assume that the various chemical substances which are used in the process of manufacture check and neutralise to some extent the noxious bacterial life that must otherwise exist in the water and which is inseparable from the filth that enters it. Otherwise it is very difficult to understand why a serious outbreak of malignant disease has not already been caused by the conditions of things at present existing.

The following brief statement will show how the stream becomes polluted, and why it is so difficult to prevent its pollution.

The stream was in years gone by of greater volume than it is at present. The loss of volume may be easily accounted for by the destruction of forest at