

POLLUTION OF HARBOUR WATERS

35. (1) It cannot be disputed that the waters of both the Waitemata and the Manukau Harbours are seriously polluted and that this condition not only constitutes a danger to public health, but it also interferes with the enjoyment by the public of the valuable recreational benefits which the harbours, and particularly the Waitemata Harbour, possess.

The following extract from the evidence given by Dr. A. W. S. Thompson, the Medical Officer of Health at Auckland, shows the conditions existing in the Waitemata Harbour :—

At the present time all bathing beaches on the Waitemata from Milford to Howick inclusive are subject to pollution. The degree of impurity varies from time to time, and, in general, beaches farthest from the Orakei outfall are less heavily polluted than those which are nearer to it. All are, however, subject to occasional heavy pollution. During the past eighteen months a total of 222 samples have been taken at 23 beaches on the Waitemata, the majority (135) from Orakei, Mission Bay, and Kohimarama. Taking 100 *B. coli* per 100 c.c. as the upper limit of acceptability, 70 per cent were unsatisfactory. Fifty per cent. of samples showed heavy pollution (500 *B. coli* or more) and in 32 per cent. it was very heavy indeed (1,000 *B. coli* or more). Of 75 samples taken from 18 beaches more than a mile distant from the Orakei outfall, 48 per cent. were satisfactory, but 17 per cent. showed very heavy pollution. No beach can be regarded as safe at all times.

So far as the Manukau Harbour is concerned, the extent of the pollution is probably even greater than that existing in the Waitemata Harbour. Not only are large quantities of crude sewage and partially purified sewage discharged into the harbour, but, in addition, a large volume of wastes (in many cases of a strongly noxious nature) produced by the industries located on or near the shores are discharged without treatment into the harbour waters and pollute the waters as well as many parts of the foreshore. The waters of the Manukau are in certain respects less suitable for receiving sewage and trade wastes than are those of the Waitemata, but the much larger population on the northern side of the isthmus and the far greater use for recreational purposes made of the Waitemata Harbour and its beaches has resulted in the pollution at the Manukau receiving less attention from the public.

It has already been mentioned that the existence of this condition of pollution in the harbours has existed for many years and has become very much more serious and that, although the responsible authorities have given very full consideration to the matter and have taken action to bring about an improvement, up to the present time no alleviation has been accomplished.

(2) The pollution arises from many causes. On the Waitemata side the most important cause is the Orakei outfall, but there are also several outfalls in the North Shore area and elsewhere from which crude sewage or partially purified sewage are discharged which contribute materially to the pollution. In addition, crude sewage is deposited from the ships which use the harbour and from Harbour Board wharves and other installations. Another important source is the large number of streams and watercourses and storm-water drains which discharge into the harbour, carrying with them polluted substances of many kinds. All these sources are responsible in a greater or less degree for the pollution of the Manukau.

It is impossible to prevent the harbour waters from receiving any contaminated material, and much of it is, in any case, quickly purified by dilution. If, however, the extent of the pollution is greater than the water can safely receive, a serious nuisance is likely to arise.

(3) The Auckland Harbour Board and the Metropolitan Drainage Board have the primary responsibility for preventing the waters of the harbours from becoming polluted, but the Health Department and the Marine Department and also the various local authorities from the districts of which sewage, sewage-treatment works, effluent, and water from watercourses and storm-water drains are discharged have some share in the