

grounds of expense and also because the stream has been hypothecated for electric-power purposes. The cost of bringing this water into the City of Dunedin is estimated at from £100,000 to £150,000. It probably would not cost quite as much to bring the water to the Kaikorai Valley, but, seeing that the inhabitants of the four boroughs in that valley have either now obtained or can obtain water for domestic purposes from the city supply, it is hopeless to expect that they would sanction any larger loan for the purpose of bringing in water for the use of the factories. The factories also could not themselves afford to pay for such a scheme, and, moreover, they would not, I think, be willing to do so, as in any case several of the largest of them have already obtained private supplies of clean water for the purposes for which such water is required, and the water of the Kaikorai Stream, although filthy, can be used by all of them without cost to themselves for all other purposes.

If a loan of £25,000 were raised at 5 per cent. interest over the whole of the land in the watershed of the Kaikorai Valley, whether it benefited or not, to cover the cost of Hay's scheme, and if an annual charge of £500 were added to cover cost of pumping, it would mean a yearly rate of nearly 1s. in the pound on the annual value of such land, not counting cost of maintenance and supervision; and this is a pretty heavy rate and it would press severely on the rate-payers, and if in addition a loan of, say, £100,000 were raised for a water-supply at $4\frac{1}{2}$ per cent., this would require a yearly rate of over 2s. 3d. in the pound; so that the two rates together would amount to about 3s. 3d. in the pound on the annual value, and this rate would, I consider, be absolutely prohibitive at the present time.

(e.) Green Island Scheme.

In addition to these four schemes the Mayor of Green Island proposed that the difficulty as to the fouling of the stream by the factories could be surmounted by the construction of a large pipe or carrier running from above the factory highest up the stream right through the valley, and that into this carrier the water of the stream should be led at its upper end; and then that the water in the carrier could be taken therefrom and used by all the factories in turn, provided that after they had used the water they returned it again to the carrier. By this means it was contended that the water could then be used again and again as at present, but without danger, until in the end the carrier would discharge the water into the swamp near the sea without creating any nuisance. This scheme would if carried out keep the polluted water from the factories out of the stream, and still allow them to use it, and it is possible under certain conditions that, so far as the factories are concerned, this scheme might possibly be useful. This scheme was not, however, supported by any other of the local authorities and no estimate of its cost was given. No evidence was given by any engineer or competent person as to its feasibility, neither was it shown how the factories in the middle and lower down the valley would be able to return the polluted water to the carrier. It is manifest that the water would have to be forced by them into the carrier by mechanical power, as there is a considerable fall in the valley right through, and the point would very soon be reached when it would be impossible to return the water to the carrier by gravitation. The cost of forcing the water into the carrier under pressure would be considerable, and the factory-owners would undoubtedly object to have to pay for the same. The bulk of the water in the stream would, moreover, have to be placed in the carrier, because any smaller quantity which would be used over and over again under this scheme would become so absolutely filthy by the time it reached the abattoirs, freezing-works, and other factories at the lower part of the valley as to be unfit for any use whatever.

The scheme, moreover, does not make any provision for the sewage from dwellings and places other than factories in Morningside, Maori Hill, Roslyn, and Green Island Boroughs. Its adoption also would probably give rise to very serious claims for loss of riparian rights, for it is not only the factory-owners who would be put to more expense and who would no doubt be able to make claims, but also every owner of land which fronts on to the stream or through