

2. The measures that have been taken to improve the sanitation, and the measures that are necessary and desirable in the future.

I will therefore divide the main parts of my report into the above two headings.

#### THE EXISTING STATE OF THE SANITATION OF THE DISTRICT.

The District of Hawke's Bay is sparsely populated, and there are in it all sizes of towns, from the smallest township, to the Borough of Napier with a population of 8,774.

Sanitation can therefore be found in every stage of evolution, from the small township where each man is a law unto himself, has an individual water-supply and nightsoil-removal, household slops and refuse being thrown out on the garden. This is the lowest stage of the evolution of sanitation, as anything less than that cannot be dignified with the name of sanitation, but must be an insanitary state of things. This individual system is sufficient for the sanitary needs of a small township provided the nightsoil and other refuse matters are disposed of with intelligence, so as not to become a nuisance to the inhabitants of the house or the neighbours, until the township reaches a certain size. The next stages in sanitary evolution are the adoption of a common system of collecting nightsoil and house refuse; then some simple drainage scheme is established for removing household slops either by surface-channelling or by closed drains. The next step to be taken is a public water-supply, and the final acme of sanitation is reached with a complete sewerage system and water-carriage of nightsoil and slops. Examples of every stage of sanitary evolution exist in Hawke's Bay except the last, as no town has yet adopted the complete water-carriage system in practice. The most important point that the Health Officer has to decide is whether the town is progressing in sanitation in the required ratio to its progress in increase of population and crowding-together of houses, and also whether for any particular reason, such as the occurrence of typhoid or diphtheria, it is necessary for its sanitary evolution to advance at a quicker rate than it otherwise would do. At the same time, if special facilities exist for a drainage system and a public water-supply, even in a small town the attainment of sanitary perfection should be urged. In relation to this question will first of all describe the existing sanitary arrangement in some of the towns.

#### *Boroughs.*

*Woodville* (population, 926).—Weekly system of removal of nightsoil and house refuse. Wooden sewers and branch drains have been constructed at the cost of about £1,300; the main object for their construction was to carry the water from small creeks that run through the town and to drain the surface-water: this purpose they serve very well. They also receive household slops. A high-pressure water-supply will be completed during the next year.

*Dannevirke* (population, 2,315).—Weekly system of removal of nightsoil and house refuse. High-pressure water-supply; concrete channelling in the main street has been recently constructed.

*Hastings* (population, 3,650).—Weekly system of removal of nightsoil and refuse. Water-supply is an individual one from artesian wells. A sewerage scheme at a cost of about £20,000 was constructed about twenty years ago. It receives the household slops of 150 houses, and there are seventy-two water-closets connected.

*Napier* (population, 8,774).—Weekly removal of nightsoil. House refuse removed daily in business portion of the town, weekly in other portions. Every house is supplied with water from the public high-pressure supply, and almost every house is connected with the sewerage system. Water-carriage of nightsoil is only partial.

*Gisborne* (population, 2,737).—Weekly system of removal of nightsoil and house refuse. A few premises are drained by pipe drains into the river; no common water-supply or sewerage system has yet been constructed.

#### *Town Districts.*

*Waipawa* (population, 669).—Weekly system of removal of nightsoil. Forty-three houses are connected with a sewerage system, and fifty that can be connected are undrained. No public water-supply.

*Ormondville* (population, 459).—The houses are scattered, and there is no common system of nightsoil-removal.

*Kaikora North* (population, 268).—The houses are scattered, and there is no common system of nightsoil-removal.

*Taradale* (population, 763).—No common system of nightsoil-removal. Drainage for slops by concrete channelling, kept flushed by the discharge of artesian wells. Individual artesian water-supply.

*Clyde* (population, 623).—Houses are somewhat crowded together, and there is no common system of removal of nightsoil and house refuse.

*Waipukurau Village* (population, 565).—Weekly system of removal of nightsoil; partial sewerage system. No public water-supply.

#### *Gisborne Suburbs.*

*Kaiti* (population, 700); *Whataupoko* (population, 1,148).—Nightsoil is removed by private contract. In the other small centres of population in Hawke's Bay District there is no common system of sanitation.

The above short description, though not complete, will be sufficient to show that the towns of Hawke's Bay Health District have not, on the whole, been backward in sanitary evolution; and although I cannot speak from a wide experience, yet from what I have seen in England, and from what I have read of in other English-speaking countries and colonies (it is idle to compare English sanitation with that of other nations), I should say that the existing state of sanitation and the