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Committee Utility Services
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Annual Review of the Microbiological Quality of Drinking Water in NZ : 2001

1. Purpose

The purpose of this report is to acquaint the Committee with the contents of the Annual Review of the Microbiological Quality of Drinking Water in NZ:2001, recently released by the Ministry of Health.

2. Background

This report is produced annually by the Institute of Environmental Science and Research Ltd on behalf of the Ministry of Health. It is a national review of all registered public water supplies from major metropolitan supplies down to small supplies to rural schools, adventure camps and the like.

It is essentially statistically based and most conclusions are expressed in terms of the population served.

3. Findings of the Report

Compliance levels in 2001 are, in general, slightly lower than in previous years. The reason for this is that 2001 compliance has been tested against the new Drinking Water Standard for NZ:2000 (DWSNZ) which has significantly more stringent compliance criteria than those contained in the previous 1995 standard.

Key findings of the review are as follows:

1. Of the people serviced by Community Water supplies, 70% nationally received water which complied with the *E.coli* criteria of DWSNZ:2000.
2. Of the people serviced by Community Water supplies, 74% nationally received water from a treatment plant which complied with the *Cryptosporidium* criteria of DWSNZ:2000.

3. There was a general trend for the percentage of zones complying within a population band to decrease as the population of the band decreased (i.e., the smaller the community water supply, the less likely it is to comply with DWSNZ:2000).

4. Implication for Greater Wellington Water

Information within the report is listed by District Health Board. The population serviced by Greater Wellington Water lies within the Hutt Valley District Health Board (HVDHB). However, the HVDHB also covers other metropolitan supplies (e.g., Kapiti Coast District Council) and a number of smaller supplies.

No information is offered on individual treatment plants except to list a number of plants which did not comply with one or other aspect of the DWSNZ:2000. None of the Greater Wellington Water plants are listed.

The compliance achieved by individual supply zones is listed in Appendix 4 of the review. While this compliance is, strictly, based on tests carried out within each zone, the results reflect the adequacy or otherwise of treatment received upstream of the zone.

All distribution zones managed by our four city customers fully complied with the requirements of DWSNZ:2000.

5. Compliance Achieved by Greater Wellington Water Treatment Plants

The calendar year 2001 was the first year in which compliance was assessed against the new DWSNZ:2000, published in December 2000. The 2000 standard brought in a number of changes, some very significant. From the point of view of Greater Wellington Water, the most significant is the requirement to continuously monitor, and report, the turbidity levels downstream of each filter in our two surface water treatment plants. This requirement necessitated the installation of new turbidimeters, and the development of reporting software to report and analyse turbidity levels at one minute intervals.

These improvements took some months to put in place, and in the meantime, manual systems were resorted to in order to demonstrate compliance to HVDHB officials. GWW staff worked closely with these officials and in April 2002, HVDHB advised that:

- Te Marua, Wainuiomata, Waterloo and Gear Island treatment plants complied with all relevant *E.coli* criteria.
- Te Marua, Waterloo and Gear Island treatment plants complied with all relevant *Cryptosporidium* criteria.
- The Wainuiomata treatment plant did not fully comply with relevant *Cryptosporidium* requirements. In particular, short term turbidity

“spikes” did not comply with the requirement that changes in turbidity greater than 0.2 NTU in 10 minutes shall not occur.

The lack of full compliance at Wainuiomata has been addressed in a number of ways, and considerable improvement achieved, with full compliance reported from April 2002.

6. Recommendations

That the report be received and its contents noted.

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