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Report to Utility Services Committee
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Metropolitan Leak Detection Programme - Termination

1. Purpose

To seek endorsement from the Utility Services Committee to cease funding for the Council's Metropolitan Leak Detection Programme, which is undertaken by Hutt, Porirua, Upper Hutt and Wellington city councils on their reticulation systems and funded through the bulk water levy.

2. Background

2.1 Programme Inception

The Metropolitan Leak Detection Programme commenced in the 1993/94 financial year. It was established to provide a co-ordinated programme of leak detection on water reticulation systems within the region, following a joint recommendation endorsed by the Regional Council and its four territorial authority water supply customers.

The founding objectives of the programme were:

1. To ensure that leak detection within the Wellington Metropolitan Region is undertaken on a regionally co-ordinated basis.
2. To ensure that resources allocated to leak detection maximise the quantities of water saved.

The terms of reference included "*to develop leak detection programmes for inclusion in Annual Plans of members' authorities*" and "*to co-ordinate the presentation and reporting of data associated with leak detection*".

The Leak Detection Working Group (LDWG), established between the five councils at the outset of the programme, agreed that leak detection in their areas would be greatly

improved if external assistance were provided – principally by doing sounding surveys to detect possible leakage. On the basis that all reticulation should be sounded every two years, an annual funding requirement of \$160,000 was determined; this was later adjusted to \$180,000. The preference of the working group was for funding through the Bulk Water Levy.

After the first year of operation (1993/94), when a combined sounding survey was arranged (one contractor working in all four TA areas), each TA carried out its own programme. From 1994/95, some territorial authorities opted to conduct flow tests while others used the funding to installing area meters and related equipment. Although efficient leak detection programmes are dependent on the ability to isolate leakage systematically, installation of new meters does not reduce leakage directly, and was not consistent with the original intention of the programme.

2.2 Programme Review – 1996

In July 1996, WRC officers prepared a review of the programme for the Utility Services Committee, recommending that it be terminated, due to ‘new’ projects (a necessary criteria for funding under the initial agreement) becoming more difficult to find, and the difficulty of determining dollar-cost to benefit ratios. The review concluded that the programme had achieved the initial purpose of raising the profile of leak detection activities within the four territorial authorities. However, by year three, there was evidence of different levels of commitment to the programme among the participating councils, thus calling into question whether the original objectives were being consistently advanced. The Utility Services Committee decided to continue the Metropolitan Leak Detection Programme, but called for renewed effort to demonstrate the value-for-money of the programme.

2.3 The Programme since 1996

In response to the demand for greater accountability, a new standardised reporting system was devised by WRC and supplied to customers in February 1998. This demand for more detailed reporting resulted in three of the participants requesting that the programme be terminated, in July 1998. Their view was that they should not have to be accountable to WRC, through detailed reporting, as they provided the programme’s funding through their levy payments.

In December 2000, following a customer meeting, the Water Group wrote to the customers outlining the benefits for all participants in continuing the programme, including supporting resource consent applications for water take. An offer was made to accept the same reporting of results that each customer TA provided to its own council, in order to allay their concerns about duplicated reporting effort. This system has been in place since that time, with the result that a mixed quality of information has been received.

3. Customer support for the proposal

The water utility managers of the four territorial authorities involved in the funding programme have recently been consulted about whether they want the Metropolitan Leak Detection Programme to be continued. Wellington and Upper Hutt have indicated their preference for the termination of the programme. Hutt City is neutral and Porirua City has indicated it will concur with the majority opinion. The

expectation of all four councils is that the full cost of the programme would be cut from the Bulk Water Levy if it were terminated.

4. Implications regarding resource use

Although the Metropolitan Leak Detection Programme has been cited in support of recent renewals of the Water Group's water take resource consents, the Group's Asset and Quality Manager has concluded that there is no specific condition or requirement relating to leak detection in the current surface water consents. The only reference in the aquifer consent relates to *our* distribution and storage system, rather than those of our customers. In short, the consent conditions do not preclude the funding being terminated.

Unaccounted-for losses from reticulation systems are estimated to account for some 20 percent of water treated, and our leak detection funding *should* and *may be* delivering a valuable reduction in demand on the region's water sources. However, without greater commitment from our customers to co-ordinating methodology and sharing results, we cannot prove that the programme is providing value for money.

5. Summary

The programme was initiated in 1993 from a shared desire for comprehensive leak detection surveys on all water distribution systems in the region, on a well managed, planned and regular basis. The intention was to share information, resources and skills. Since the second year of the programme (1994/95), the four city councils have preferred to operate their leak detection work independently.

At present three councils independently conduct annual night flow testing, some of which is funded through the Metropolitan Leak Detection Programme. However, there is no evidence that they report results of reduced leakage between themselves in a way that allows direct comparison. Where this work is not funded through the bulk water levy, the customers are generally unwilling to provide detailed results to the WRC. Without our customers sharing results achieved from self-funded sounding work, or using comparable methodology and reporting, it is impossible to judge the cost/benefit of expenditure through the Metropolitan Leak Detection Programme. The customers themselves do not advocate that the programme be continued.

6. Communications

There are no communications opportunities arising from this report.

7. Recommendation

It is recommended that the Council ceases funding the Metropolitan Leak Detection Programme after 30 June 2002, and return the funding value to its four water supply customers through a reduction in the bulk water levy.

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