



FILE

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Dear Sir/Madam

KAHAROA WATER SUPPLY - PROGRESS REPORT

Further to our previous correspondence and advice, the network investigation of the Kaharoa Water Supply has been completed and the report complete with a summary of the results and proposals are attached. Council agreed to the proposals at the June 1999 Works Committee meeting.

A recommendation that will affect many users is that correctly sized restrictors will be installed throughout the scheme over a two year period, starting from June 2000.

Details of your water allocation from the scheme, existing restrictor size, proposed correctly sized restrictor and date of installing the correctly sized restrictor are given below:

Water account number	: 533
Valuation number	: 06951/080.00
Rateable area (ha)	: 0.2
Original land use	: dairy
Water allocation (l/min)	: 0.56
Existing restrictor size (l/min)	: None
Correctly sized restrictor (l/min)	: 1.4
Date of installing correctly sized restrictor	: June 2000
Recommended minimum on-site storage requirement (litres)	: 1,000

The above data represents the status of your property to date. If there are any subdivision proposals relating to the above properties being processed the allocations will change accordingly. Please contact the undersigned if there are any discrepancies or you require advise for on-site storage requirements for subdivisions once the allocations have been finalised.

Storage Requirements

One of the main original design requirements of the scheme was for secondary (on-farm or on-site) storage to provide at least 12 hours of the scheme's 24 hour storage requirements. The primary or network storage has been designed to ultimately provide 12 hours storage. Users are therefore recommended to provide on-site storage of at least 12 hours of their allocation for their own emergency storage purposes.

The correctly sized restrictor will supply a user with the required water over 24 hours at a steady flow. In practise a household or enterprise will have certain periods where there will be a peak demand period. A typical household has a peak demand between 7.00 to 9.00 a.m. and 6.00 to 9.00 p.m. On-site storage will be required for peak demand periods where the restrictor flow is less than the peak demand flow. A typical flow from a household tap is 15 l/min and for 2 or more taps running is 22 l/min. The minimum restrictor flow is 1.4 l/min. The minimum on-site storage to cater for peak demands for a typical household should be 1 000 litres.

From the above it is recommended that all users have secondary or on-site storage. The recommended minimum on-site storage requirements for a typical household will be the maximum of 12 hours of their allocation or 1 000 litres. See the recommended storage in the box on page 1.

It should be noted that users with enterprises other than a typical household should calculate their peak demand requirements and ensure they have sufficient on-site storage.

On-site Pressure Pump

The provision of on-site storage will in most cases result in a reduction in system pressure for a user. In fact the available pressure will be the difference between the level of the tap and the water level in the storage facility. Ideally the on-site storage facility (i.e. a tank) should be at least 5 to 10 metres higher than the household taps (giving 5 to 10 metres head of pressure).

A garden sprinkler typically requires an operating pressure of 15 to 30 metres head.

If this is not possible due to the topography of the plot of land then it is recommended to install a small pump fitted with a pressure vessel and pressure switch. This arrangement will allow the pump to switch on and off automatically when household taps are used without burning out the electric pump motor.

Summary

It is recommended that all users make preparations to have secondary or on-site storage and if extra pressure is required, install a small pump fitted with a pressure vessel and pressure switch. This should be carried out as soon as possible to ensure a system storage of at least 24 hours but at least before the date for the flow restrictor change.

We will contact you with a more exact date for the change, approximately 3 months before it is programmed to occur.

If you want any further advise, please feel free to contact the undersigned. However the offer will not include detail on site design but we may be able to direct you to people who can assist in this regard.

Yours faithfully



Adrian Vosloo
Utilities Planning Manager