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Report on Potential Water Savings

This report has been commissioned by Mr Neville Donaldson to outline the savings to be obtained from the Installation of a Cisternlink Aquasave Device. I see from the E-mail on the subject that a third party evidence is required and such evidence must be verifiable.

I am a Consultant of almost 10 years working on the Gold Coast in Queensland and work in advising a number of Companies in that region. In compiling this evidence I have conferred with a Master Plumber who teaches plumbing apprentices in Queensland and New South Wales within a Registered Training Organisation. I have also looked at Australia Post statistics as regards residential and business addresses in Australia in order to ascertain the number of toilets in use in Australia.

I have used the following figures:-

- That the combined residential and business toilet average per address is 4 .
- That there are 8,121,489 Residential and Business addresses in Australia.
- That a toilet cistern uses 6 litres per occasion for a full flush and 3 Litres for a half flush.
- That to wash hands uses an average of 2 litres of water per occasion.
- That the total number of toilets in Australia is in excess of 32,500,000.
- That 15% of the total toilets will be equipped with a Cisternlink Aquasave Device.
15% of 32,500,000 equals 4,800,000 Toilets.

The average household in Australia is about 4.3 people and conservatively that is what I have used as my base calculation figure. Assuming each person uses the toilet 5 times per day then that means 21.5 flushes and 21.5 lots of hand wash per day. 21.5 hand washes is equal to 2 x 21.5 litres of water saved per day. This is the equivalent of 15.7 Kilolitres per house per year saved

The amount of water used per day to flush the toilet would be equal to:-

$$[(4 \text{ flushes} \times 3 \text{ litres}) + (1 \text{ Flush} \times 6 \text{ litres})] \times 4.3 \text{ people} = 77.4 \text{ litres}$$

Therefore %age of water usage saved = 43 litres / 77.4 litres

Savings per Residential and Business Address = 55.6% of total water usage for toilets.

The volume of water saved at 36% of Residential and Business addresses using the device would be:-

$$15.7 \text{ Kilolitres per year} \times 4,800,000 = 75,360,000, \text{ Kilolitres per year.}$$

Conclusion.

This device is one that can make a huge impact on water saving in the community. A saving of 15.7 kilolitres per year per household is significant in any circumstances. The installation of this device will not only reduce the total water consumption by somewhere in the vicinity of 18% on average but it will also reduce household cost and improve hygiene standards.

I feel that this is a device that should be given a Water Smart seal of approval at the high end of the scale.

Yours Faithfully

Dennis Simmons

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