

Waiheke Island Water Use survey results

A self complete survey form was sent to all ratepayers who owned property on Waiheke Island and all householders living on Waiheke Island in November 2007. A total of 1,554 completed survey forms were received back and have been used in this analysis. Approximately 6500 forms were sent out.

This is a brief report of the findings from that survey. A brief overview of the population living on the Island is provided first.

A brief demographic overview of the population of Waiheke Island taken from the 2006 Census

In 2006, Waiheke Island had a permanent resident population of 7,690 people. The population appears to have grown in recent years, with an increase of 7.7% between 2001 and 2006 (this was a slightly smaller increase than the previous inter-censal period when the population grew by 13.5%). The population swells over the summer months as it is a popular beachside destination.

In line with this population increase, there has also been an increase in the number of households from 2,742 in 1996 to 3,324 by 2006.

In 2006 there were 3,468 private occupied dwellings on the island, and a further 1,473 empty dwellings (many of these will be baches and holiday homes). 165 dwellings were coded as 'residents away'. This indicates that about a quarter (or more) of the dwellings on the Island are holiday homes or baches. The Waiheke Island Census Area Unit (CAU) has the highest number of empty dwellings in the Auckland region – followed by Cape Rodney CAU (this includes popular holiday areas of Leigh, Matheson Bay, Pakiri and Omaha) with a count of 1,220 empty dwellings, as well as other CAUs in the Rodney District (numbers not as high).

Just over half (55%) of the 3,324 households on the island owned or partly owned the dwelling in which they lived, 12% owned it as part of a family trust and 33% were renting (1,029 households). This level of renting is similar to the overall regional figure of 36%. The majority (98%) of the renting households were making payments to a private landlord.

While a third (33%) of the usual residents in 2006 had lived in the same dwelling five years prior (eg: at the 2001 census), almost half of the usual residents lived elsewhere in New Zealand five years prior, and 10% had lived overseas. This indicates quite a high proportion of newer residents on the island.

Who responded?

The survey forms are completely anonymous and it is not possible to ascertain how many of the returned forms were responses from the ratepayer mail-out and how many are from the general letter box drop. Respondents were asked, to indicate whether they lived on the island permanently or infrequently and whether they owned a business on the island. People

could choose more than one option. The largest group stated they were ratepayers who lived on the Island permanently – almost two thirds (60.7%). It is not known how long people have lived on the island.¹

Of those who lived on the island permanently, 39 also owned rental property or properties on the Island (respondents were not asked to provide information on how many properties they owned). A further 45 permanent respondents owned a business or a shop on the Island.

Over three hundred responses were received from people who visited Waiheke frequently to visit their holiday home.

Please indicate which of these applies to you (tick as many as apply)

Category	number	%
I live on Waiheke permanently – ratepayer	943	60.7
I live on Waiheke permanently – renting	134	8.6
I visit Waiheke frequently to stay in our holiday home	333	21.4
I own a rental property on Waiheke Island	130	8.4
I own a business or shops on Waiheke Island	64	4.1
Other	80	5.1
Total	1,554	-

Percentages will not add to 100 as people could choose more than one category.

Quite a few people made comments on their form under ‘other’. While many of these were general comments, a group of 28 respondents stated that they owned land only, eg: a section.

As respondents could fit into more than one category (eg: they could own more than one property on the Island, either home or business), they were asked to complete the questionnaire for one property only, and to state which that would be. The largest group stated they were completing their questionnaire for their permanent home (1,077).

Of the 37 respondents who ticked ‘other’, 16 stated they were commenting on their land or a section, nine on a rental home, and 15 made general comments.

A small proportion (31 respondents) did not provide a response to this question.

What type of property are you completing this questionnaire for?

Category	number	%
Permanent home	1,077	69.2

¹ If we assume that the 1,077 permanent residents (ratepayers and those renting) who returned a survey form completed one survey form per household, we could perhaps estimate that a third of all permanent households on the island responded to the survey.

Holiday home	347	22.3
Commercial/Industrial (e.g. business or shop)	28	1.8
Other	52	3.3
No response	31	2.0
Ticked more than one	19	1.2
Total	1,554	100.0

Primary Source of Water

As perhaps expected, rainwater is the primary source of water supply for most properties. Twenty-four respondents stated their primary water source is bore water and one stated stream water.

With regard to the 28 respondents who were commenting on their business or shop, again most (23) stated rain water was their primary water supply. Several people provided comments. These varied – a few commented that they purchased drinking water, and a few commented that they have to top up with tanker water.

What is your primary source of water supply for this property?

Category	number	%
Rain water	1467	94.4
Stream water	1	0.1
Bore water	24	1.5
Other	8	0.5
Ticked more than one	37	2.4
Did not answer	17	1.1
Total	1554	100.0

If people nominated that their primary water source was rain water, they were then asked to indicate whether their supply lasts most years. Of those who had indicated that rainwater was the main water source, the majority (81.5%) said that they rarely had to source additional water, and 15.8% said it runs out most years. A small proportion did not answer the question. This figures are consistent with those in the water resource development sustainability – Hauraki Gulf islands report undertaken by Tonkin & Taylor Ltd in 2001 for ACC and earlier ARC water use surveys undertaken in 1998.

Quite a few respondents (about 220) provided comments. These generally reinforced their answer provided. For example, a large number reiterated that they never run out of water, quite a few from long term residents on the Island, and quite a few also commented that they only have to top up in summer months due to increased numbers of occupants in the

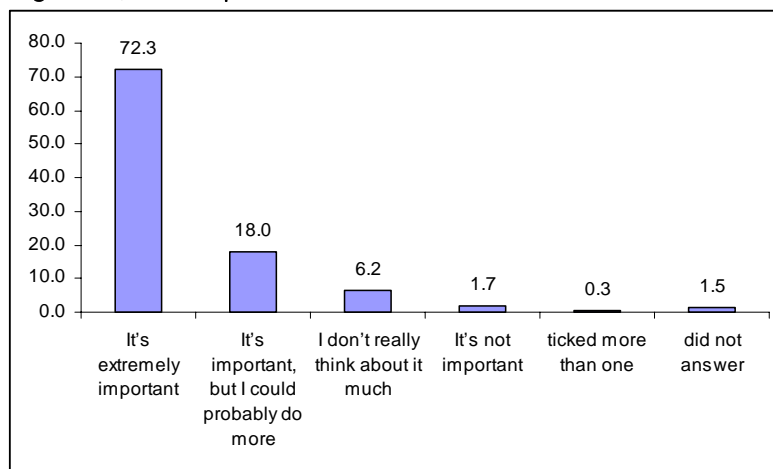
house. Some started to provide comments on how they conserve water and why they do not run out.

Importance of water conservation

Water conservation is important to most respondents – 72% replied that it was extremely important, and 18% said it was important to them and they could probably do more.

It may have been useful to ask how long people had lived on the Island as it appears from comments that the longer term residents were more aware of water supply constraints and ways of mitigating against this.

In general, how important is water conservation on Waiheke Island to you?



Only 26 respondents (1.7%) indicated that water conservation was not important to them. Just over half of this group were permanent residents and half visited their holiday home.

There may be some respondent bias in this result however as those residents and ratepayers who are concerned about water supply and conservation may be more motivated to complete the survey and return it than those who do not feel it is an issue.

Water conservation behaviour

Respondents were presented with a list of five water conservation methods and were asked to indicate how many of these methods they 'currently used'.

The largest numbers (almost half) stated they had dual flush toilets and they took short showers. Fifty seven respondents did not answer this question. Only about one third indicated that they recycled their grey water.

What methods do you currently use to conserve water?

Category	number	%
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Dual Flush toilets	1,241	79.9
Short showers	1,257	80.9
Water efficient appliances	836	53.8
Use a plug rather than let taps run	1,042	67.1
Use of grey water	571	36.7
Did not answer	57	3.7
Total	1,554	-

Percentages will not add to 100 as people could choose more than one category.

In their comments, respondents provided plenty of other examples of water conservation practices including:

Comment	number
Don't flush toilet every time	42
Dry flush / composting toilet	24
Mulch the plants to reduce the need for watering	19
One tank for garden	14
Educate visitors	13
Use bowl rather than sinks	13
Grey water recycling for flush toilets and gardens	12
Bucket in shower and bath	11
No dishwasher	11
Don't allow taps to run at all	9

Respondents were asked to rate (prioritise) three possible options for improving individual water supplies on the island on a scale of 1 (most preferred) to 3, or to indicate if they had no preference.

About one quarter of the respondents did not, or could not, answer the question properly – many of these ticked one, two or all three options. A further 155 said they had no preference.

About 920 people provided a 1, 2 and a 3. Of this group, increasing water storage capacity (eg bigger or more tanks) was rated first preference by 59.3%. The percentage who rated each option as their first second or third preference is listed below.

Percentage who rated each option 1, 2 or 3 (%)

	1st option	2nd option	3rd option
increasing water storage	59.3	15.9	24.5
increasing water efficiency	26.2	49.5	24.4
using grey water for garden use	14.5	34.6	51.0

- Lack of appreciation of water scarcity and the need for careful use of water by summer visitors, tourists and new residents
- Homes with higher than “average “ water consumption. Some new large houses that include spa pools, swimming pools and multiple bathrooms and toilets were perceived as increasing the demand for tanked water.

Following on from this, a lot of respondents commented there is a need for better education on water supply and use for visitors, tourists and newcomers. Some also mentioned education in schools.

In line with the argument that it should be up to the household to conserve their water use, many argued for the need to ensure homes have adequate water capture capacity, mostly through using appropriate sized tanks. Suggestions on how to achieve this included

- Subsidising / encouraging the purchase of bigger and more water tanks
- Not including water tanks as site coverage
- Making it mandatory to have adequate water supply
- Make communal bores available

Another strong theme was around the use of private water bores. Respondents who mentioned these tended to advocate for restricted or limited private use. Comments included:

- the use by private users should be restricted / monitored / controlled by Council
- bore water should not be used for gardens
- no more bores should be allowed

Other less frequent, general comments included:

- Fire-fighters could use sea water
- A few clearly stated that they did not want reticulated water on the island
- Some wished that winter rainfall / stormwater could be captured in winter months for use over summer
- Some perceived waste through water carriers slopping water
- Self sufficient water supply is part of Waiheke Island identity / experience for many of the respondents and they wish to retain this point of difference.

Conclusion

The high number of survey forms returned, the relatively high rating of the importance of water conservation and the tone of respondents comments suggest that residents of Waiheke Island, particularly the longer-term residents, feel quite strongly that water conservation and efficient water use is a vital issue for Waiheke Island.

Many respondents provided additional comments on their forms that has enabled better understanding of the nature of water use on the island, related issues and some positive solutions.

After the questionnaires were sent out Arc held two open forums for residents to see the results of technical work that ARC has done on Waiheke recently and to discuss their views and solutions for water management on Waiheke Island. Most of the sentiments of the questionnaire responses were reiterated in the forums.