



**Community Water Survey
Cooks River Sustainability Initiative
Upper Wolli Creek Subcatchment**

**A research report prepared for
*Cooks River Sustainability Initiative***

November 2008



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Background

The Cooks River Sustainability Initiative is an innovative three-year project incorporating eight councils in the Cooks River catchment, with an emphasis on partnerships, local communities and ecological health. The eight councils have received a grant from the NSW Government, through its Urban Sustainability Program, to implement the Cooks River Sustainability Initiative.

Partner councils are Ashfield, Bankstown, Canterbury, City of Sydney, Hurstville, Marrickville, Rockdale and Strathfield.

Micromex Research was contracted by the Cooks River Sustainability Initiative to assist in undertaking social research of subcatchment communities.

This report details the results of research undertaken within the Upper Wolli Creek Subcatchment.

Upper Wolli Creek Subcatchment

The Upper Wolli Creek Subcatchment covers parts of the suburbs Beverly Hills, Kingsgrove and Bexley North. The subcatchment is bordered by Homer St to the north and Stoney Creek Road to the south and it includes a section of the M5 motorway. Based on the 2006 Census the Upper Wolli Creek Subcatchment has a population of approximately 10,175.

City of Canterbury

Located 17 kilometres south-west of the Sydney CBD, the City of Canterbury is a treasure chest full of exotic foods, unique shops and diverse cultures. The Campsie Food Festival and Haldon Street Festival in Lakemba, highlight the richness within the area and promote Respect, Unity and Peace. The Cooks River passes through the north of the LGA with two other waterways - Wolli Creek and Salt Pan Creek - forming natural boundaries to the south and west.

Hurstville City Council

The City of Hurstville is centrally located 15 kilometres south of the Sydney CBD and is one of the major regional centres within the Sydney metropolitan region. The Hurstville Local Government Area (LGA) covers an area of 22.8 sq km and is home to a population of 76,913 people with approximately 27,220 occupied private dwellings. Hurstville's City Centre contains the major concentration of commercial office and retail space in the Southern Sydney region and is the preferred location for small and medium sized businesses in the financial, insurance, medical, and real estate sectors as well as Government offices and community services.

Rockdale City Council

The City of Rockdale is located on the shores of historic Botany Bay, 12 km from Sydney's central business district. Incoming tourists touch down in and take off from the City of Rockdale, as the International Terminal of the Kingsford Smith Airport is located within the Rockdale City Council local government area.

Within its boundaries, the City of Rockdale is home to a diverse spectrum of commercial, residential, industrial, and natural landscapes - plus, of course, a vibrant mix of people. The City of Rockdale has an estimated population of 92,300. As a multicultural area, around 55% of residents come from a non-English speaking background. Languages spoken in the community include Arabic, Chinese, Greek, Italian, Macedonian and Spanish.

Methodology

In August 2008, the City of Canterbury, Hurstville City Council and Rockdale City Council mailed a copy of the community water survey to 3,665 households within the Upper Wolli Creek Subcatchment. 512 surveys were returned, which represents 14.0% of all households. A copy of the survey is included as Appendix A.

Households were asked to return their surveys within two weeks, with a prize incentive of a \$100 Coles Myer gift card.

Data analysis was undertaken using SPSS V15 and the report compiled using Microsoft Excel and Word.

Testing for statistical significance

A statistical significance is an observed effect that is large enough to be considered as not due to chance alone.

The chi-square analysis was used to test the null hypothesis (H_0), which is the hypothesis that states that there is no significant difference between expected and observed data.

When H_0 is true, the p -value (probability value) is the probability that the observed outcome would happen. The smaller the p -value is, the stronger the evidence against the H_0 .

In this analysis the alpha was set at .05. When the p -value was smaller than alpha, the null hypothesis was rejected and it was concluded that there was a difference (statistically significant difference).

The p -value results are included in the main body of the report.

Errors: Data in this publication is subject to sampling variability because it is based on information relating to a sample of residents rather than the total number. This difference (sampling error) may occur due to imperfections in reporting and errors made in processing the data. This may occur in any enumeration, whether it is a full count or sample.

Efforts have been made to reduce the non-sampling error by careful design of the questionnaire and detailed checking of completed questionnaires.

Summary

The total number of respondents to this survey was 512 from a total of 3,665 households and a subcatchment population of 10,175.

Sampling error

A sample size of 512 respondents provides a maximum sampling error of plus or minus 4.0% at 95% confidence.

It is important to be aware that not all respondents answered all questions and, as a consequence, the sampling error may vary.

The following table presents comparisons of the demographic profiling from the survey with the ABS Census 2006 data, collated by the Cooks River Sustainability Initiative team for the Upper Wolli Creek Subcatchment.

	(ABS) % of subcatchment population	(Survey) % of respondents
Gender		
Male	49%	49%
Female	51%	51%
Age		
18-19 yrs	3%	1%
20-29 yrs	14%	4%
30-39 yrs	17%	14%
40-49 yrs	17%	20%
50-59 yrs	17%	17%
60-75 yrs	19%	23%
75+ yrs	12%	22%
Household weekly income before tax		
Negative/Nil income	1%	6%
\$1-\$799	36%	47%
\$800-\$999	6%	8%
\$1,000 or more	46%	39%
All incomes not stated	11%	9%
Number of years in current residence		
Lived at same address 1 year ago	91%	94%
Lived at different address 1 year ago	9%	6%
Lived at same address 5 years ago	74%	83%
Lived at different address 5 years ago	26%	17%

Summary (Cont'd)

	(ABS) % of subcatchment population	(Survey) % of respondents
Dwelling		
Separate house	90%	91%
Semi-detached, terrace or townhouse	6%	3%
Flat, unit or apartment	3%	3%
Other	1%	2%
No of people at residence		
One	20%	14%
Two	29%	30%
Three	18%	24%
Four	20%	21%
Five	9%	9%
Six or more	4%	2%
Tenure		
Fully owned	50%	65%
Being purchased	24%	24%
Rented - Housing Authority	7%	6%
Rented - other	15%	5%
Other tenure type	4%	0%
Aboriginal or Torres Strait Islander		
Total percentage of population	1%	0%
Country of Birth		
Australia	55%	56%
China	8%	10%
Greece	5%	4%
Language		
Speaks English only	42%	72%
Greek	16%	6%
Cantonese	11%	5%

Summary (Cont'd)

Where the rainwater in the street drains normally goes

- 290 (58%) respondents thought that water in the street drain goes to the nearest waterway and 35% to the sewerage system

Which water ends up in the street drains

Four of the eight categories apply to external water runoff (driveways/footpaths, paved areas, roof and excess water from the garden) and four apply to internal waste water (kitchen sink, washing machine, shower and toilets).

- On average, 63% of respondents thought that the external water runoff ended up in the street drains (from 75% for driveways/footpaths to 50% for excess water from the garden), while on average 21% thought that the internal wastewater ended up in the street drains (from 23% for washing machines and kitchen sinks to 17% for toilets).

Water usage in a typical household

Of the 475 responses:

- 39% answered that the daily household usage was 200–400 litres
- 38% estimated less than 200 litres
- 24% estimated more than 400 litres

Note: The average daily household use from 2007- 2008 was 512 litres for City of Canterbury, 469 litres for Rockdale City Council and 449 litres for Hurstville City Council. The research indicated that approximately 77% of respondents overall underestimated the typical household daily water use.

Rating of agreement

In this question respondents were asked to rate, on a scale of 1 to 5, the extent to which they agreed with eight different statements relating to water and the environment.

Statements	Agree (1-2)	Neutral (3)	Disagree (4-5)
Jobs are more important than the environment	24%	42%	35%
Access to a healthy natural environment is more important than access to community facilities	40%	43%	17%
My daily activities have little negative impact on the waterway environment	56%	22%	23%
Government agencies should be mainly responsible for the waterway environment, rather than the individual	45%	19%	36%
We should aim for the same waterway conditions as before the Europeans arrived more than 200 years ago	41%	27%	32%
I would reduce my shower time by half to save limited water resources	73%	14%	12%
Most people want to help improve the health of the waterway environment	74%	17%	9%
Laws are more effective than education for protecting the waterway environment	37%	22%	41%

Summary (Cont'd)

Rainwater tanks

- 17% of respondents indicated they have a rainwater tank (by answering a question about how they currently use tank water)
- Of those respondents who use rainwater from their tanks, 99% use it in the garden (17% of the total respondents), 67% use it to wash the car (12% of the total respondents) and 34% use it to flush the toilet (6% of total respondents)

The size of the rainwater tank in litres

	Count	%
0-250 litres	11	17.2%
251-500 litres	8	12.5%
501-1,000 litres	8	12.5%
1,000-2,500 litres	16	25.0%
2,500-10,000 litres	19	29.7%
15,000 litres	1	1.6%
20,000 litres	1	1.6%
Total	64	100.0%

Current greywater reuse

- 43% of respondents indicated that they reuse greywater
- 91% for watering the garden (39% of the total respondents)
- 3% of respondents have a greywater diversion and/or treatment system installed

Water saving devices

- 81% of respondents have water saving devices, with 83% of these respondents using a showerhead, 75% a toilet water flush saver and 49% a tap aerator

Receptivity to rainwater reuse

Respondents who don't currently have a rainwater tank were asked how they would consider using the water if they did have a tank

- The most common response was 'watering the garden' (95%), followed by 'washing the car' (81%), 'flushing the toilet' (74%), 'washing clothes' (40%) and 'showering' (20%)

Receptivity to greywater reuse

Respondents who don't currently reuse greywater were asked how they would consider using it.

- The most common response was 'watering the garden' (93%), followed by 'flushing the toilet' (71%), 'washing the car' (60%), 'washing clothes' (17%) and 'showering' (6%)

Summary (Cont'd)

Major improvements to the environment in your council area in the next 20 years

There were a total of 479 responses to this question, which have been categorised as follows. 40% of responses related to water. It is important to note that many of the responses included under the Cleanliness/beautification category also relate to waterways (see Appendix B for a complete list of responses).

	Count	%
Water	194	40.5%
Parks/gardens/trees	74	15.5%
Cleanliness/beautification	71	14.8%
General environment*	47	9.8%
Roads/transport	23	4.8%
Waste management	19	4.0%
Development	18	3.8%
Education	10	2.1%
Other	23	4.8%

*General environment includes all environmental related responses that do not fit into the other environmental categories such as water or waste management.

Summary (Cont'd)

Tests for statistical significance

The following matrix shows those variables with which there was a statistically significant relationship.

SECTION B: Question		Q1	Q2	Q3	Q4	Q5	
		Street drains	House water	Water usage	Ratings	Rainwater tanks	
SECTION A: Geo-demographics						Yes/No	Use
1	Gender		Yes		Some ratings questions were significant within each geo-demographic.		
2	Age		Yes				
3	No of years in residence		Yes				
4	Type of house		Yes				
5	No of people in the house						
6	House makeup						
7	Home ownership						
8	Work status		Yes				
9	Household income		Yes				
11	Country of birth	Yes	Yes	Yes			Yes
12	Language at home	Yes	Yes				Yes
13	Education		Yes				
SECTION B: Question		Q6	Q7	Q8		Q9	Q10
		Current greywater reuse	Greywater diversion	Water saving devices	Receptivity to rainwater reuse	Receptivity to greywater reuse	
SECTION A: Geo-demographics				Yes/No Devices			
1	Gender	Yes	Yes	Yes	Yes		
2	Age				Yes	Yes	Yes
3	No of years in residence		Yes		Yes	Yes	Yes
4	Type of house					Yes	
5	No of people in the house						
6	House makeup						
7	Home ownership						
8	Work status				Yes	Yes	
9	Household income					Yes	
11	Country of birth	Yes	Yes		Yes	Yes	Yes
12	Language at home	Yes	Yes		Yes	Yes	Yes
13	Education						

Note:

- (1): In section B 'Other' was excluded from questions Q1, Q4 and Q13
- (2): Q13 in the geo-demographics was re-coded into three categories; School, TAFE/Diploma and University
- (3): Q10 in the geo-demographics was excluded due to the small sample size
- (4): Q11 in the geo-demographics was re-coded into Australia and Overseas

Results

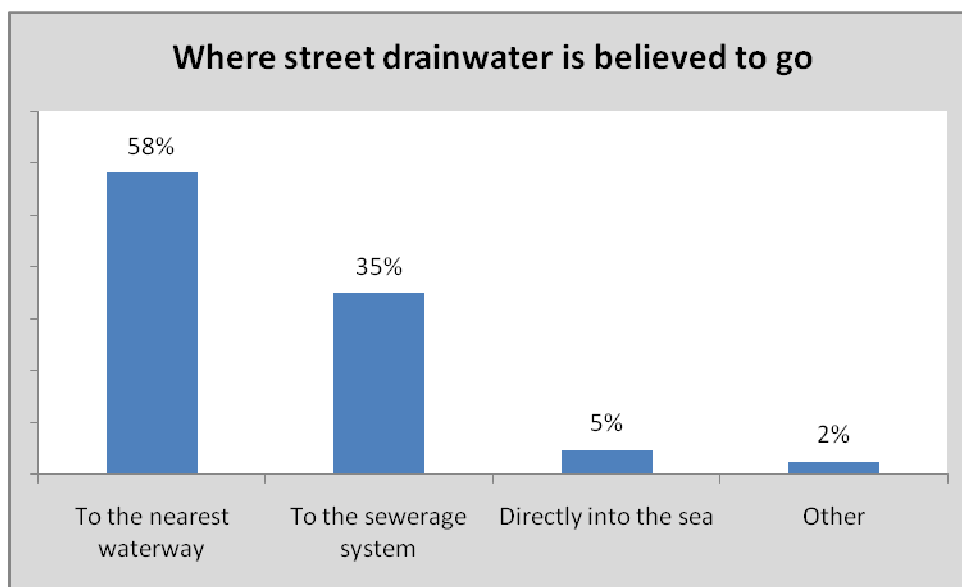
Questions one to three aim to identify the level of understanding of water systems knowledge.

Q1.

1. In my council area the rainwater in the street drains normally goes (tick one only):

- To the sewerage system
- To the nearest waterway [i.e. Cooks River]
- Directly into the sea
- Other: _____

- Of the 499 responses, 290 (58%) respondents thought that water in the street drain goes to the nearest waterway and 35% to the sewerage system



	Count	%
To the nearest waterway	290	58.1%
To the sewerage system	174	34.9%
Directly into the sea	23	4.6%
Other	12	2.4%
Total	499	100.0%

Significant relationships

There was a statistically significant relationship between the groups in the following categories in their understanding of where the rainwater in the streets normally goes.

	p-value
Country of birth	.000
Language spoken at home	.000

Q2.

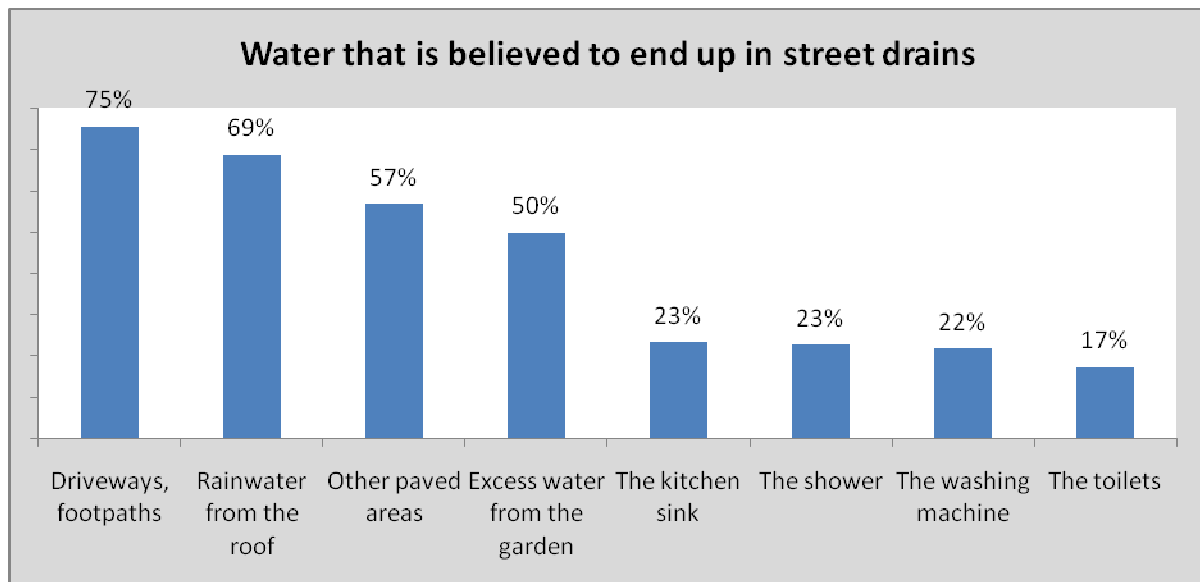
2. From the list below, which would normally end up in the street drains? Tick all that apply

Water from:

<input type="checkbox"/> the kitchen sink	<input type="checkbox"/> the washing machine
<input type="checkbox"/> the shower	<input type="checkbox"/> driveways, footpaths
<input type="checkbox"/> the toilets	<input type="checkbox"/> other paved areas
<input type="checkbox"/> excess water from the garden	<input type="checkbox"/> rainwater from the roof

Four of the eight categories apply to external water runoff (driveways/footpaths, paved areas, roof and excess water from the garden) and four apply to internal waste water (kitchen sink, washing machine, shower and toilets).

- There were 491 responses to this question. On average, 63% of respondents thought that the external water runoff ended up in the street drains (from 75% for driveways/footpaths to 50% for excess water from the garden), while on average 21% thought that the internal wastewater ended up in the street drains (from 23% for kitchen sinks to 17% for toilets).



	Count	%
Driveways, footpaths	370	75.4%
Rainwater from the roof	337	68.6%
Other paved areas	278	56.6%
Excess water from the garden	244	49.7%
The kitchen sink	114	23.2%
The shower	111	22.6%
The washing machine	106	21.6%
The toilets	84	17.1%
Total	491	100.0%

Continued on the following page

Q2. (Cont'd)

Significant relationships

There was a statistically significant relationship between the groups in the following categories in their understanding of where the water from their properties and homes normally ends up.

Geo-demographics	Categories	p-value
Gender	The kitchen sink	.003
	The shower	.015
	Excess water from the garden	.028
	The washing machine	.032
	Rainwater from the roof	.027
Age	Driveways/footpaths	.030
	Other paved areas	.002
No. of years in residence	The kitchen sink	.015
	The shower	.025
Type of dwelling	Rainwater from the roof	.030
Employment status	The kitchen sink	.000
	The shower	.000
	The washing machine	.000
	Driveways/footpaths	.001
	Other paved areas	.005
Household income	Excess water from the garden	.000
	Driveways/footpaths	.000
	Other paved areas	.000
Country of birth	The kitchen sink	.000
	The shower	.001
	Excess water from the garden	.001
	The washing machine	.000
	Driveways/footpaths	.001
	Other paved areas	.022
Language spoken at home	The kitchen sink	.000
	The shower	.000
	Excess water from the garden	.003
	The washing machine	.000
	Driveways/footpaths	.000
	Other paved areas	.000
	Rainwater from the roof	.019
Education	Driveways/footpaths	.000
	Other paved areas	.001

Q3.

3. On average, how many litres of water does a typical household in your local area use per day (tick one only)?

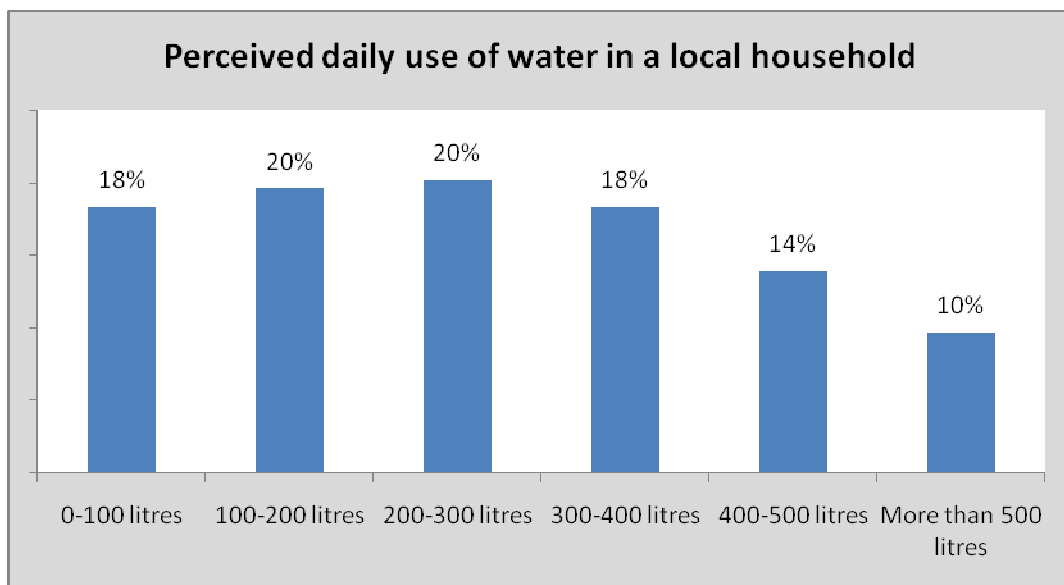
(One milk carton equals one litre of water.)

<input type="checkbox"/> 0-100 litres	<input type="checkbox"/> 300-400 litres
<input type="checkbox"/> 100-200 litres	<input type="checkbox"/> 400-500 litres
<input type="checkbox"/> 200-300 litres	<input type="checkbox"/> more than 500 litres

Of the 475 responses:

- 39% answered that the daily household usage was 200–400 litres
- 38% estimated less than 200 litres
- 24% estimated more than 400 litres

Note: The average daily household use from 2007- 2008 was 512 litres for the City of Canterbury, 469 litres for Rockdale City Council and 449 litres for Hurstville City Council. The research indicated that approximately 77% of respondents overall underestimated the typical household daily water use.



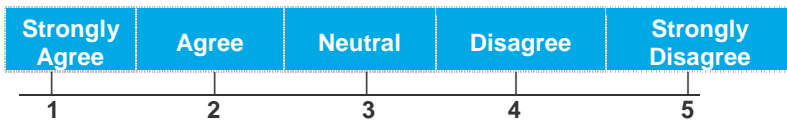
	Count	%
0-100 litres	87	18.3%
100-200 litres	93	19.6%
200-300 litres	96	20.2%
300-400 litres	87	18.3%
400-500 litres	66	13.9%
More than 500 litres	46	9.7%
Total	475	100.0%

Significant relationships

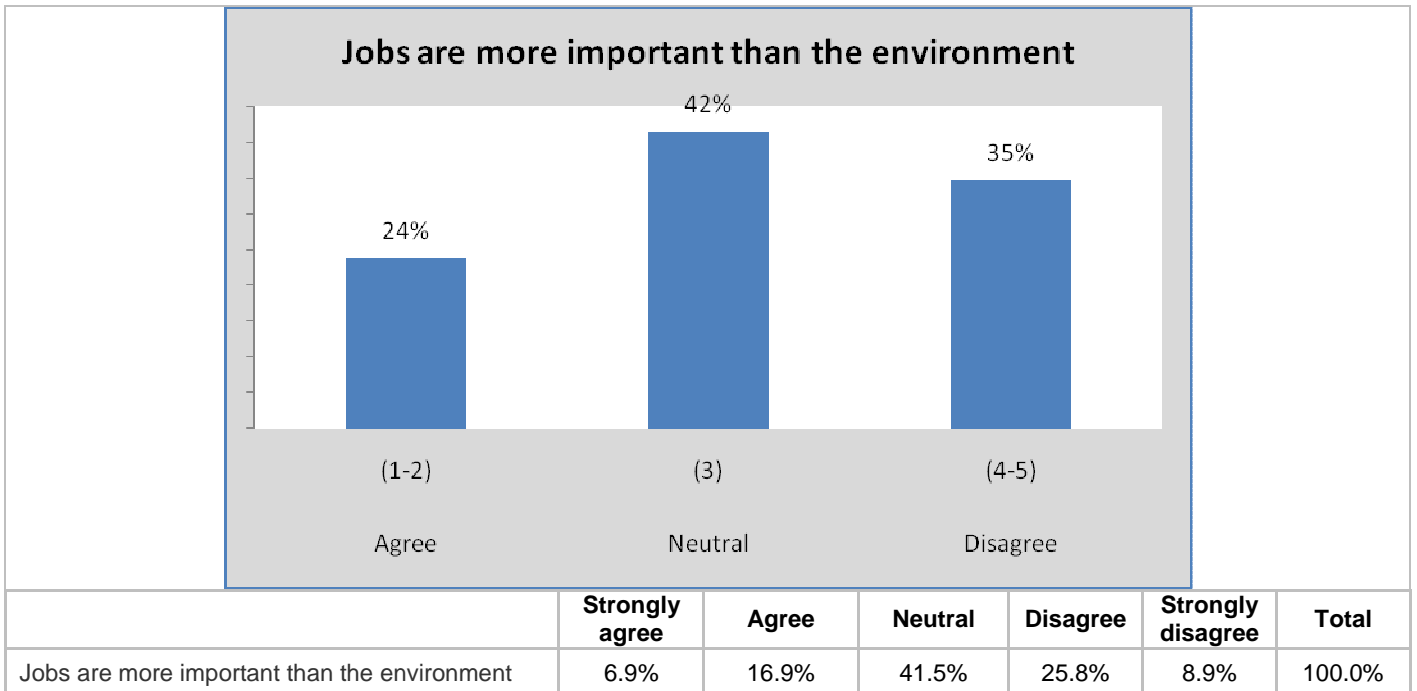
There was a statistically significant relationship between country of birth ($p=0.042$) and understanding of how much water a typical Upper Wollri Subcatchment household uses.

Q4. Attitudes to the environment

4. Please indicate on a scale of 1 (strongly agree) to 5 (strongly disagree) how much you agree with the following statements.



a. Jobs are more important than the environment.



Significant relationships

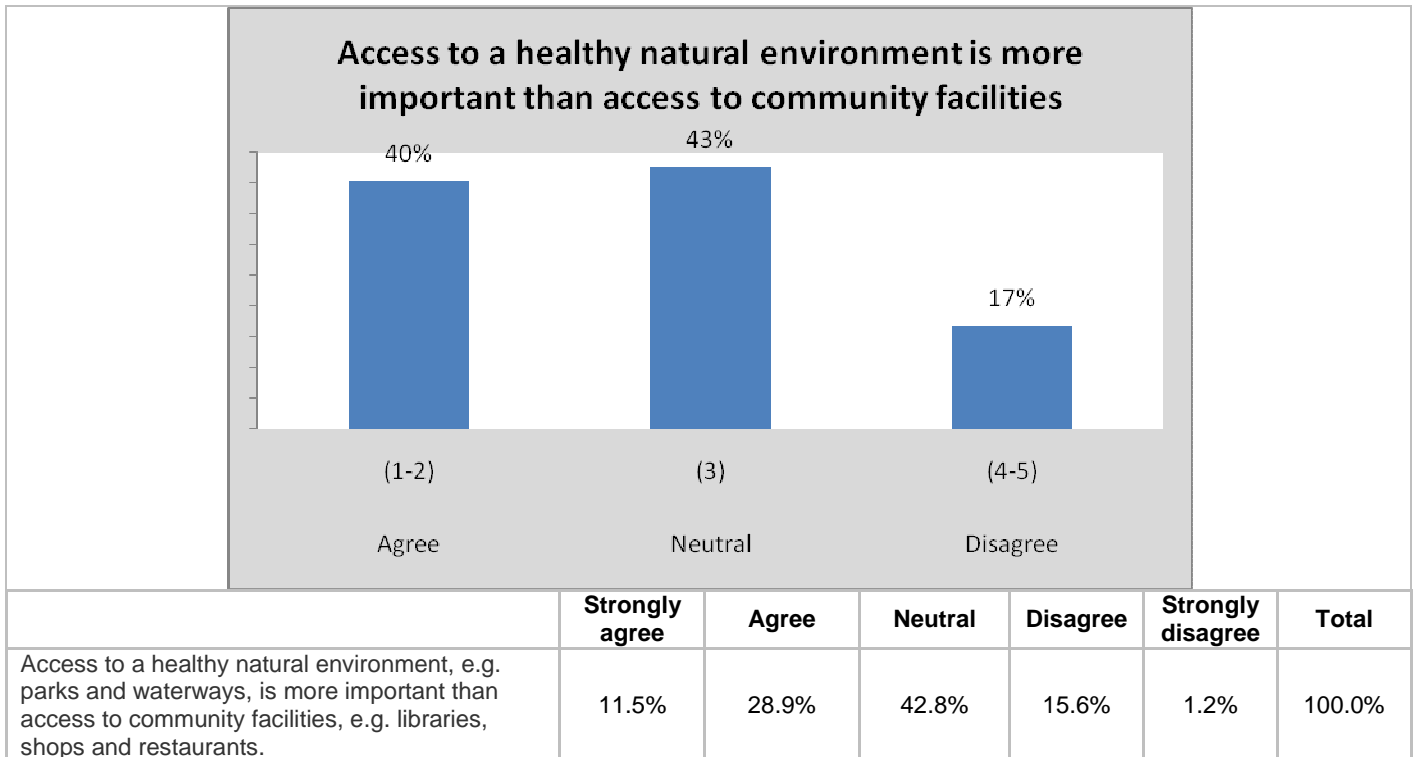
There is a statistically significant relationship between the following demographic variables and their opinion on jobs being more important than the environment.

	<i>p</i> -value
Country of birth	.020
Education	.038

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Q4. Attitudes to the environment (Cont'd)

b. Access to a healthy natural environment, e.g. parks and waterways, is more important than access to community facilities, e.g. libraries, shops and restaurants.



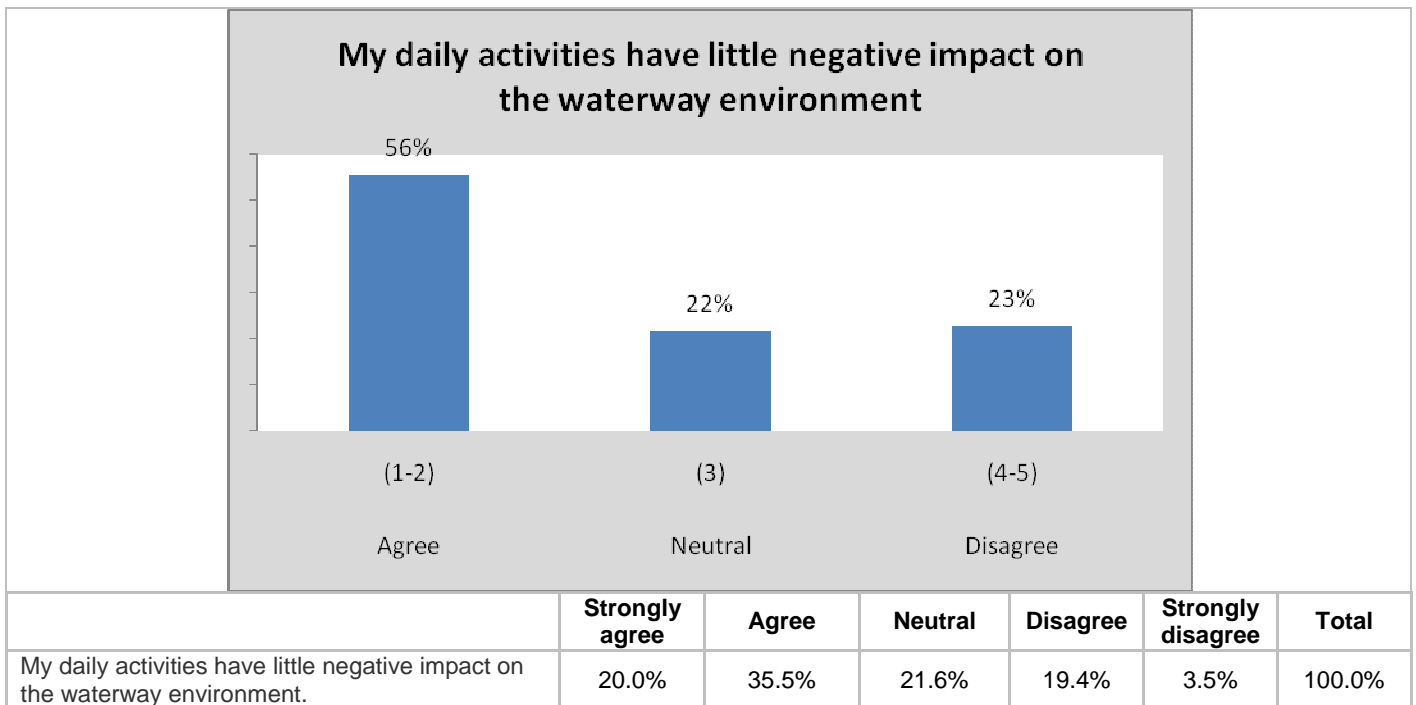
Significant relationships

There is a statistically significant relationship between the following demographic variables and their opinion on access to a healthy natural environment, e.g. parks and waterways, is more important than access to community facilities, e.g. libraries, shops and restaurants.

	<i>p</i> -value
Country of birth	.000
Language spoken at home	.049

Q4. Attitudes to the environment (Cont'd)

c. My daily activities have little negative impact on the waterway environment.



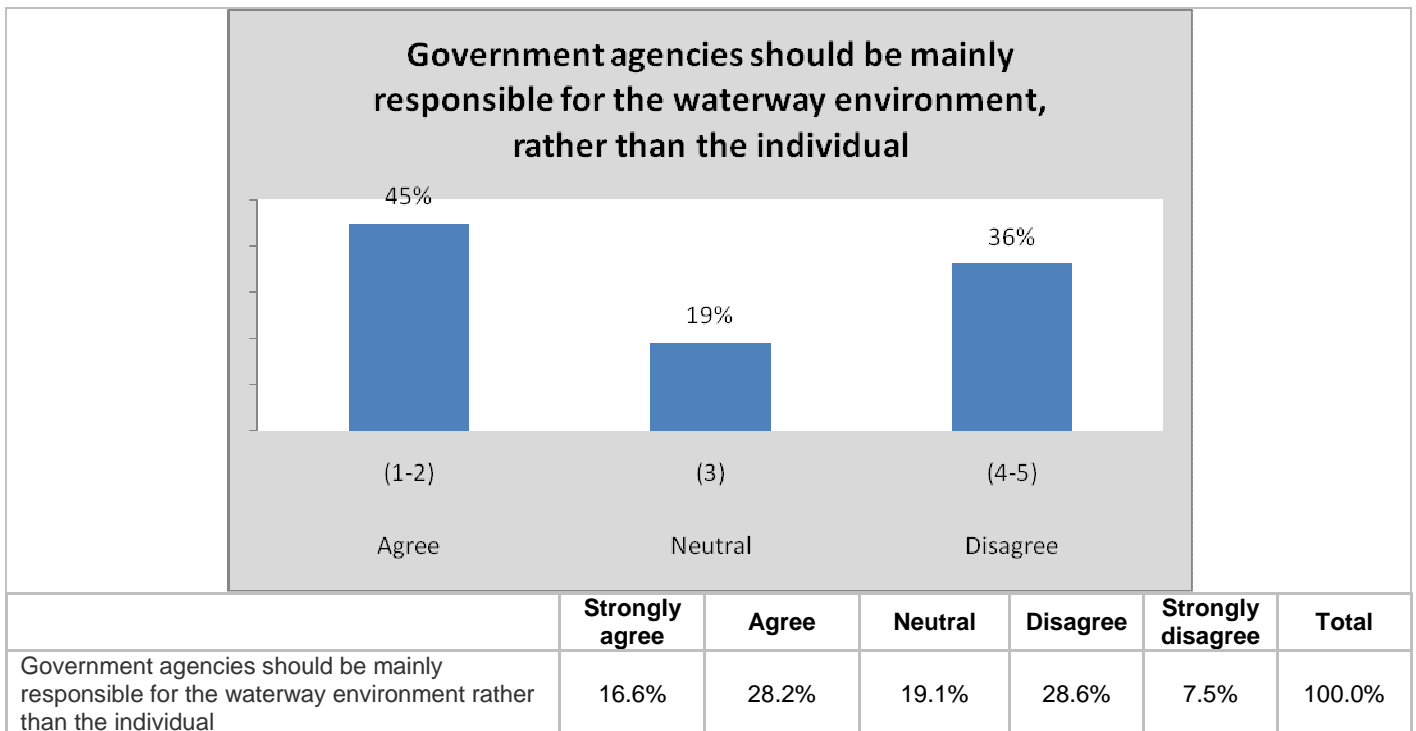
Significant relationships

There is a statistically significant relationship between the number of years in their current residence ($p=0.031$) and their opinion on whether their daily activities have little negative impact on the waterway environment

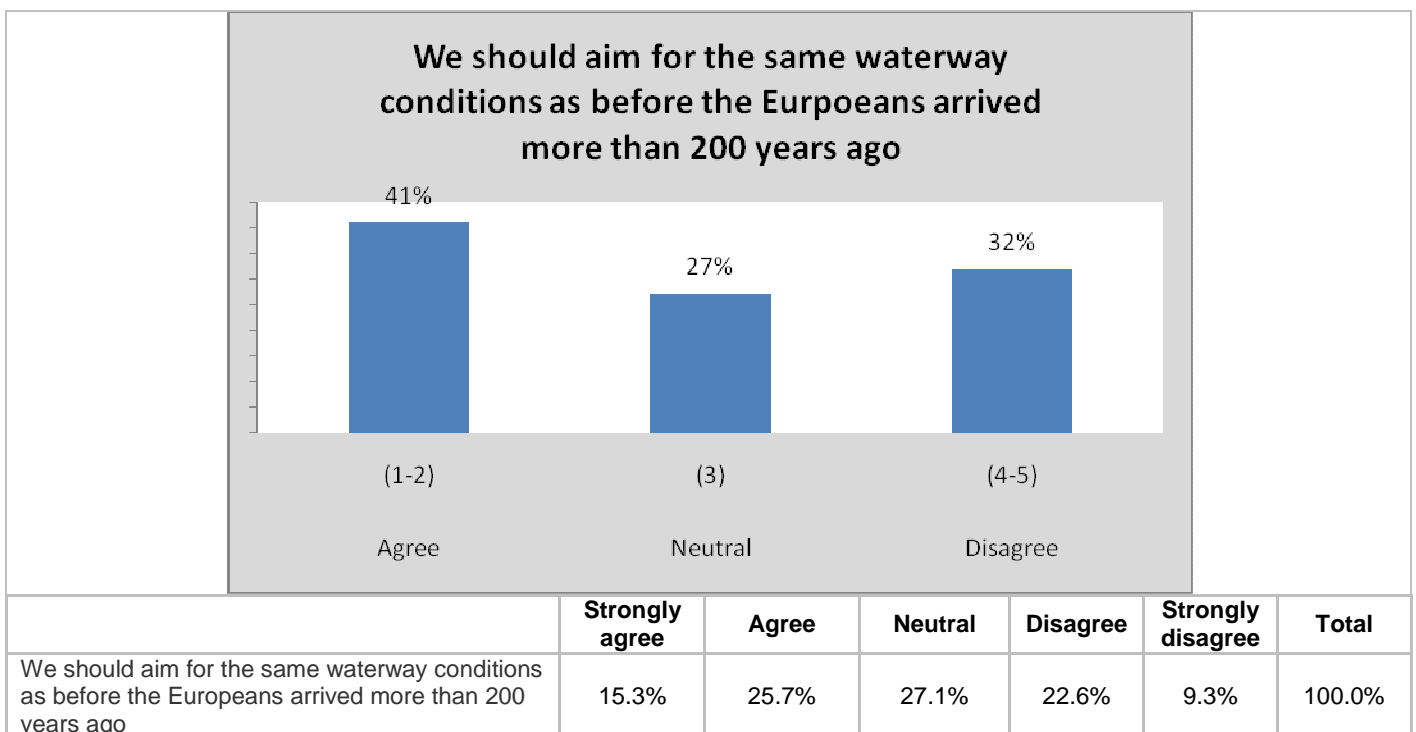
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Q4. Attitudes to the environment (Cont'd)

d. Government agencies should be mainly responsible for the waterway environment rather than the individual.



e. We should aim for the same waterway conditions as before the Europeans arrived more than 200 years ago.



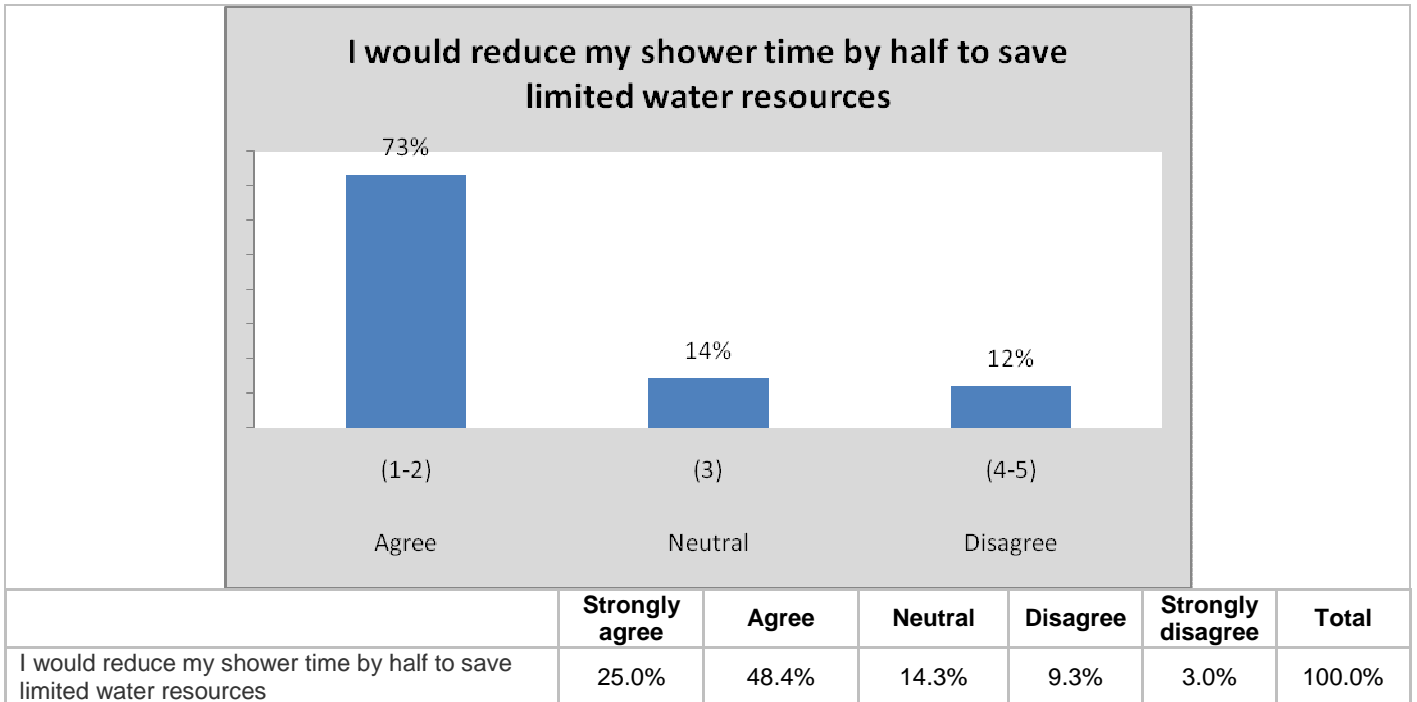
Significant relationships

There is a statistically significant relationship between the number of years in their current residence ($p=0.034$) and their opinion on whether we should aim for the same waterway conditions as before the Europeans arrived more than 200 years ago.

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Q4. Attitudes to the environment (Cont'd)

f. I would reduce my shower time by half to save limited water resources.



Significant relationships

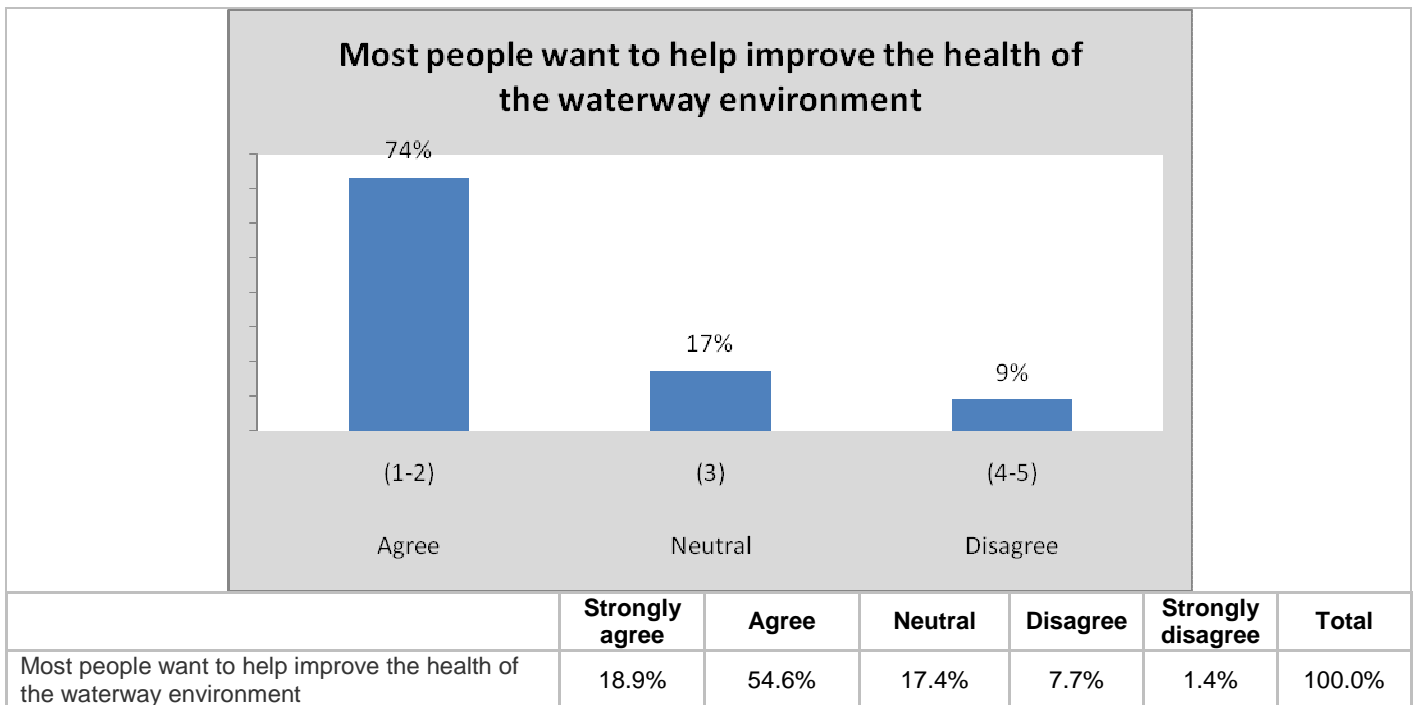
There is a statistically significant relationship between the following demographic variables and their opinion on whether they would reduce their shower time by half to save limited water resources.

	<i>p</i> -value
Country of birth	.004
Language spoken at home	.000
Gender	.005

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Q4. Attitudes to the environment (Cont'd)

g. Most people want to help improve the health of the waterway environment.



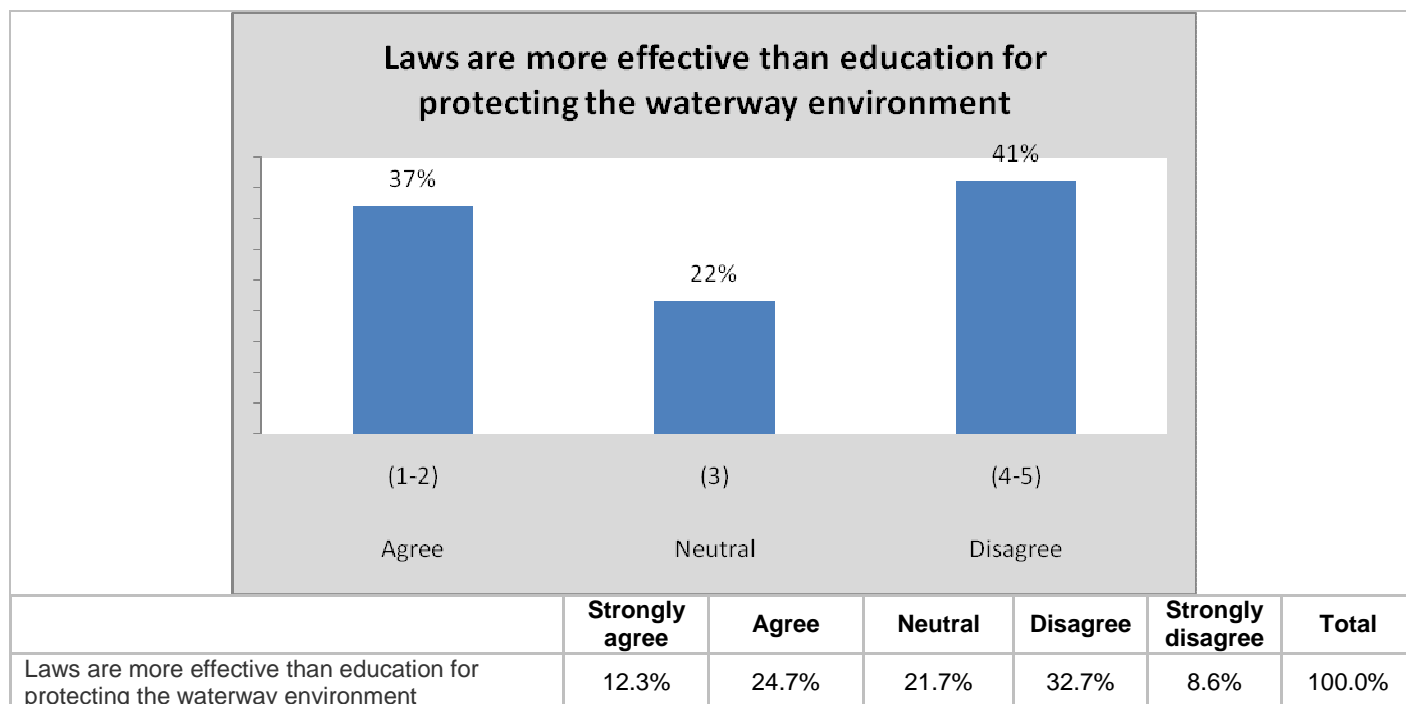
Significant relationships

There is a statistically significant relationship between country of birth ($p=0.028$) and their opinion on whether most people want to help improve the health of the waterway environment.

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Q4. Attitudes to the environment (Cont'd)

h. Laws are more effective than education for protecting the waterway environment.



Summary of Responses on Environmental Attitudes

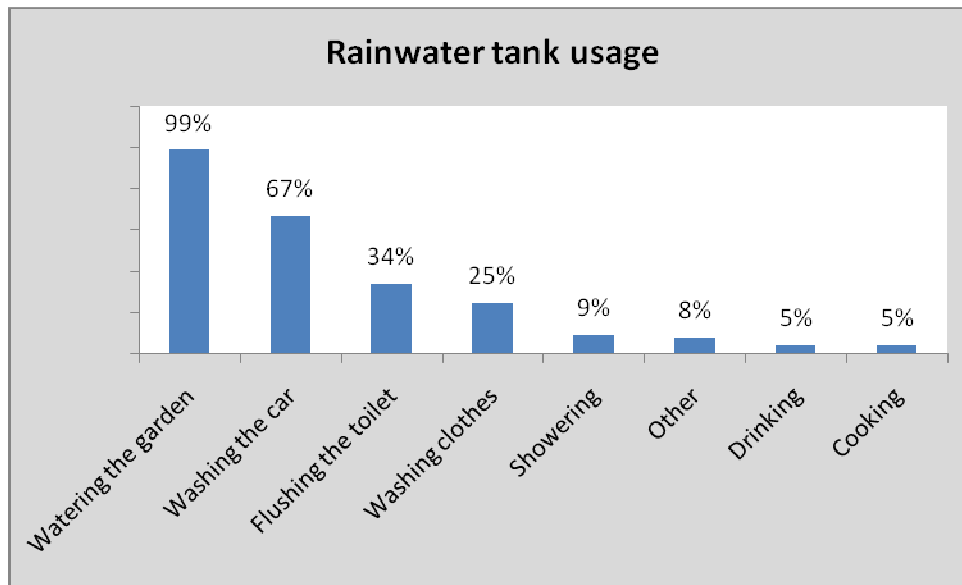
	Strongly agree		Agree		Neutral		Disagree		Strongly disagree		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
Jobs are more important than the environment	34	6.9%	83	16.9%	204	41.5%	127	25.8%	44	8.9%	492	100.0%
Access to a healthy natural environment is more important than access to community facilities	56	11.5%	141	28.9%	209	42.8%	76	15.6%	6	1.2%	488	100.0%
My daily activities have little negative impact on the waterway environment	98	20.0%	174	35.5%	106	21.6%	95	19.4%	17	3.5%	490	100.0%
Government agencies should be mainly responsible for the waterway environment, rather than the individual	82	16.6%	139	28.2%	94	19.1%	141	28.6%	37	7.5%	493	100.0%
We should aim for the same waterway conditions as before the Europeans arrived more than 200 years ago	74	15.3%	124	25.7%	131	27.1%	109	22.6%	45	9.3%	483	100.0%
I would reduce my shower time by half to save limited water resources	124	25.0%	240	48.4%	71	14.3%	46	9.3%	15	3.0%	496	100.0%
Most people want to help improve the health of the waterway environment	93	18.9%	269	54.6%	86	17.4%	38	7.7%	7	1.4%	493	100.0%
Laws are more effective than education for protecting the waterway environment	60	12.3%	121	24.7%	106	21.7%	160	32.7%	42	8.6%	489	100.0%

Nb: Some respondents did not answer

Q5. Rainwater tanks

5a.If you have a rainwater tank how do you use the water?

- 88 (17%) respondents answered this question indicating that they have a rainwater tank
- Of those respondents who use rainwater from their tanks, 99% use it in the garden (17% of the total respondents), 67% use it to wash the car (12% of the total respondents) and 34% use it to flush the toilet (6% of total respondents)



	Count	%
Watering the garden	87	98.9%
Washing the car	59	67.0%
Flushing the toilet	30	34.1%
Washing clothes	22	25.0%
Showering	8	9.1%
Drinking	4	4.5%
Cooking	4	4.5%
Other	7	8.0%
Total	88	100.0%

Significant relationships

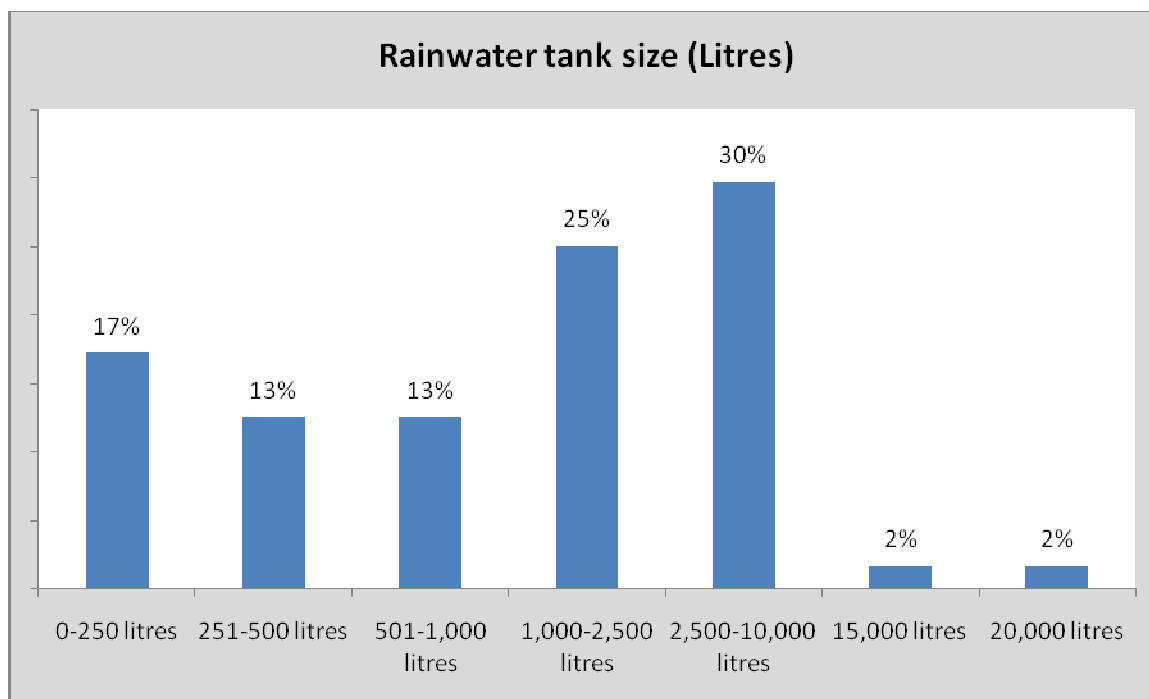
There is a statistically significant relationship within the groups in the following categories and the ways in which they use their rainwater.

Geo-demographic	Category	p-value
Country of birth	Washing clothes	.003
	Flushing the toilet	.000
Language spoken at home	Flushing the toilet	.003

Continued on the following page

Q5. Rainwater tanks (Cont'd)

5b. (If you have a rainwater tank) how many litres is your tank?



	Count	%
0-250 litres	11	17.2%
251-500 litres	8	12.5%
501-1,000 litres	8	12.5%
1,000-2,500 litres	16	25.0%
2,500-10,000 litres	19	29.7%
15,000 litres	1	1.6%
20,000 litres	1	1.6%
Total	64	100.0%

Q6. Current greywater reuse

6. If you reuse greywater how do you use the water?

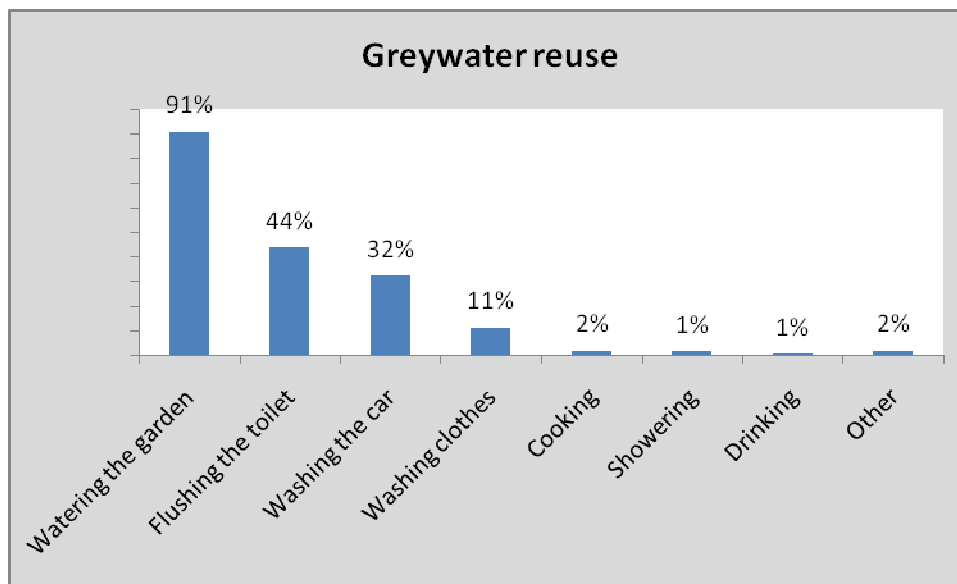
- 218 (43%) respondents to this question indicated they reuse greywater

Significant relationships

There is a statistically significant relationship within the groups in the following categories in their use of greywater

	<i>p</i> -value
Gender	.005
Country of birth	.001
Language spoken at home	.000

- The most common (91% of respondents) use of greywater is for watering the garden



	Count	%
Watering the garden	198	90.8%
Flushing the toilet	95	43.6%
Washing the car	70	32.1%
Washing clothes	24	11.0%
Cooking	4	1.8%
Showering	3	1.4%
Drinking	1	.5%
Other	4	1.8%
Total	218	100.0%

Continued on the following page

Q6. Current greywater reuse (Cont'd)

Significant relationships

There is a statistically significant relationship within the groups in the following categories and the ways in which they reuse their greywater.

Geo-demographic	Category	p-value
Gender	Washing clothes	.023
	Watering the garden	.021
No. of years in the residence	Flushing the toilet	.003
	Washing the car	.001
Country of birth	Flushing the toilet	.000
	Washing the car	.000
	Watering the garden	.001
Language spoken at home	Flushing the toilet	.000
	Washing the car	.000
	Watering the garden	.000

Q7. Greywater treatment systems

7. Do you have a greywater diversion and/or treatment system installed?

Yes No

- 14 (3%) of the 466 respondents to this question indicated they have a greywater diversion and/or treatment system installed

Q8. Water saving devices

8. Do you have any of these water saving devices?

- Showerhead Tap aerator
 Toilet water flush saver Other: _____

- 417 (81%) respondents have water saving devices, with 83% of these respondents using a showerhead, 75% a toilet water flush saver and 49% a tap aerator

	Count	%
Showerhead	344	82.5%
Toilet water flush saver	312	74.8%
Tap aerator	203	48.7%
Total	417	100.0%

Significant relationships

There is a statistically significant relationship within the groups in the following categories as to whether they have water saving devices.

	<i>p-value</i>
Gender	.011
Language spoken at home	.018

There is a statistically significant relationship within the groups in the following categories as to which water saving devices they have.

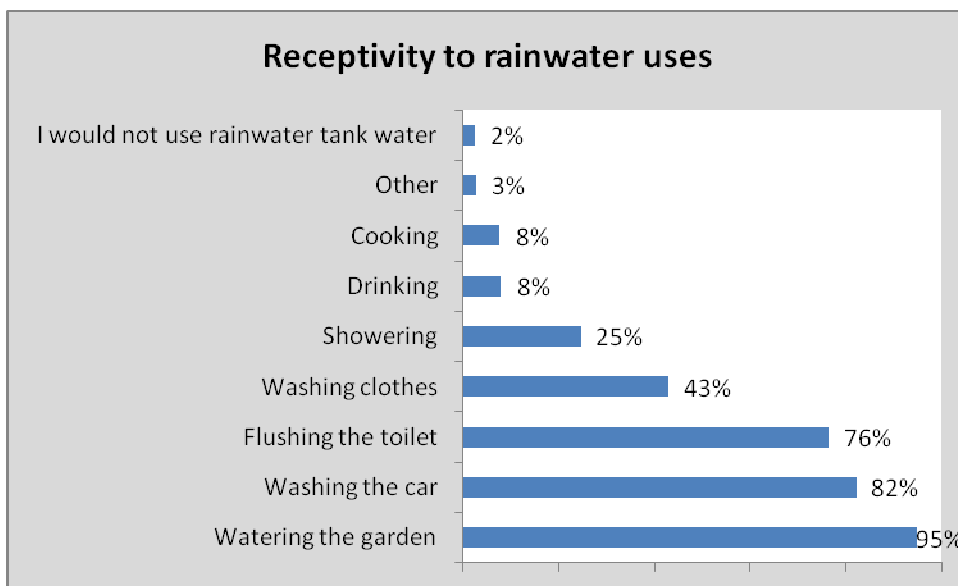
		<i>p-value</i>
Gender	Showerhead	.017
Age	Tap aerator	.010
No. of years in residence	Tap aerator	.002
Employment	Tap aerator	.003
	Toilet water flush saver	.008
Country of birth	Toilet water flush saver	.005
Language spoken at home	Tap aerator	.018
	Toilet water flush saver	.002

Q9. Receptivity to rainwater reuse

Only answer Question 9 if you DON'T currently have a rainwater tank.
 9. IF you had a rainwater tank how would you use the water?

- | | |
|--|---|
| <input type="checkbox"/> Cooking | <input type="checkbox"/> Drinking |
| <input type="checkbox"/> Showering | <input type="checkbox"/> Washing clothes |
| <input type="checkbox"/> Flushing the toilet | <input type="checkbox"/> Washing the car |
| <input type="checkbox"/> Watering the garden | <input type="checkbox"/> I would not use rainwater tank water |
| | <input type="checkbox"/> Other: |

- Of the 382 responses, the most common is 'watering the garden' with 362 (95%) followed by 'washing the car' (82%), 'flushing the toilet' (76%), 'washing clothes' (43%) and 'showering' (25%)



	Count	%
Watering the garden	362	94.8%
Washing the car	314	82.2%
Flushing the toilet	292	76.4%
Washing clothes	164	42.9%
Showering	94	24.6%
Drinking	30	7.9%
Cooking	29	7.6%
Other	10	2.6%
I would not use rainwater tank water	9	2.4%
Total	382	100.0%

Continued on the following page

Q9. Receptivity to rainwater reuse (Cont'd)

Significant relationships

There is a statistically significant relationship between the following demographic variables and receptivity to using filtered rainwater collected from the roof.

Geo-demographics	Categories	p-value
Age	Flushing the toilet	.002
	Washing the car	.000
No. of years in residence	Washing clothes	.011
	Flushing the toilet	.000
	Washing the car	.024
Type of dwelling	Washing clothes	.001
Employment	Washing clothes	.000
	Flushing the toilet	.000
	Washing the car	.000
Household income	Showering	.043
	Flushing the toilet	.049
Country of birth	Drinking	.008

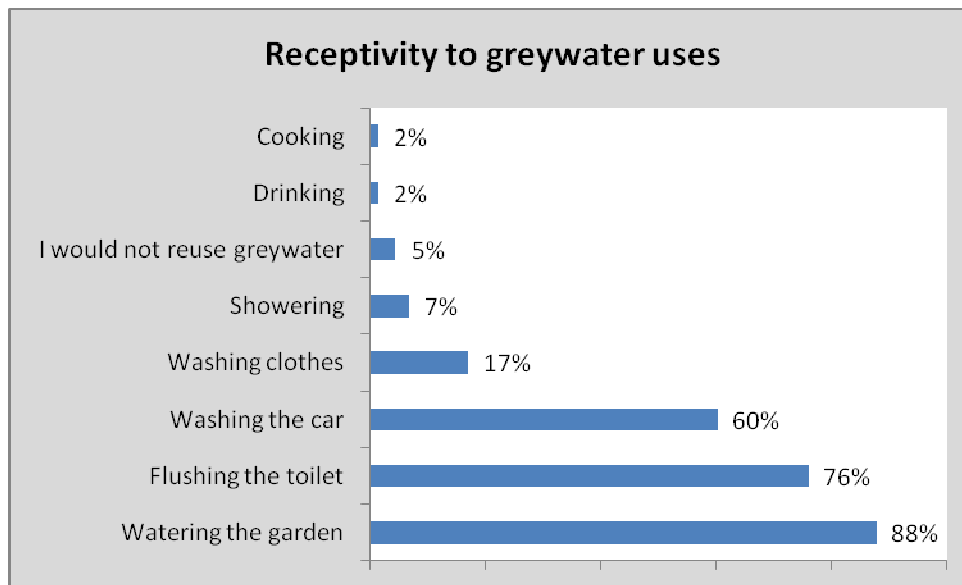
Q10. Receptivity to greywater reuse

Only answer Question 10 if you DON'T currently reuse greywater.

10. IF you reused greywater (water from the shower, bath or hand basins) how would you use the water?

- Cooking Drinking Showering
 Washing clothes Flushing the toilet
 Washing the car Watering the garden
 I would not reuse greywater
 Other: _____

- Of the 246 responses, 'watering the garden' is the most common response at 216 (88%), followed by 'flushing the toilet' (76%), 'washing the car' (60%), 'washing clothes' (17%) and 'showering' (7%)



	Count	%
Watering the garden	216	87.8%
Flushing the toilet	187	76.0%
Washing the car	148	60.2%
Washing clothes	42	17.1%
Showering	17	6.9%
I would not reuse greywater	11	4.5%
Drinking	4	1.6%
Cooking	4	1.6%
Total	246	100.0%

Continued on the following page

Q10. Receptivity to greywater reuse (Cont'd)

Significant relationships

There is a statistically significant relationship between the following demographic variables and the receptivity to using treated household wastewater collected from the kitchen, laundry and/or shower.

Geo-demographics	Categories	p-value
Age	Flushing the toilet	.046
No. of years in residence	Flushing the toilet	.013
	Watering the garden	.026
Country of birth	Flushing the toilet	.000
	Watering the garden	.000
Language spoken at home	Flushing the toilet	.000
	Watering the garden	.000

Q11. Future environmental improvements

11. What major improvement to the environment in your council area do you want to see in the next 20 years?

There were a total of 479 responses to this question, which have been categorised as follows. 40% of responses relate to water. It is important to note that many of the responses included under the Cleanliness/beautification category also relate to waterways (see Appendix B for a complete list of responses).

	Count	%
Water	194	40.5%
Parks/gardens/trees	74	15.5%
Cleanliness/beautification	71	14.8%
General environment	47	9.8%
Roads/transport	23	4.8%
Waste management	19	4.0%
Development	18	3.8%
Education	10	2.1%
Other	23	4.8%

*General environment includes environmental related responses that do not fit into the other environmental categories such as waste or waste management.

For the complete list of responses please refer to Appendix B.

Demography

	(ABS) % of subcatchment population	(Survey) % of respondents
Gender		
Male	49%	49%
Female	51%	51%
Age		
18-19 yrs	3%	1%
20-29 yrs	14%	4%
30-39 yrs	17%	14%
40-49 yrs	17%	20%
50-59 yrs	17%	17%
60-75 yrs	19%	23%
75+ yrs	12%	22%
Household weekly income before tax		
Negative/Nil income	1%	6%
\$1-\$799	36%	47%
\$800-\$999	6%	8%
\$1,000 or more	46%	39%
All incomes not stated	11%	9%
Number of years in current residence		
Lived at same address 1 year ago	91%	93%
Lived at different address 1 year ago	9%	6%
Lived at same address 5 years ago	74%	83%
Lived at different address 5 years ago	26%	17%

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Demography (Cont'd)

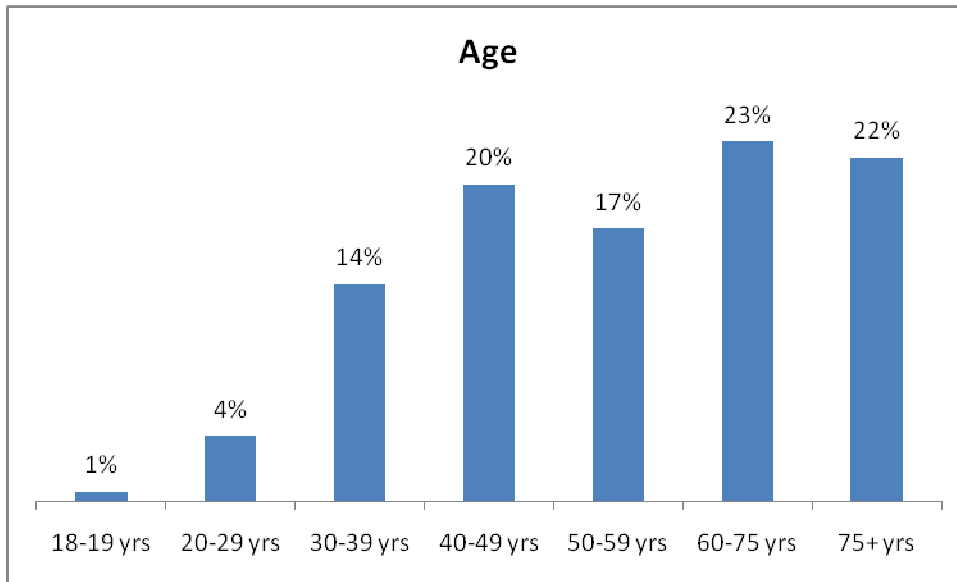
	(ABS) % of subcatchment population	(Survey) % of respondents
Dwelling		
Separate house	90%	91%
Semi-detached, terrace or townhouse	6%	3%
Flat, unit or apartment	3%	3%
Other	1%	2%
No of people at residence		
One	20%	14%
Two	29%	30%
Three	18%	24%
Four	20%	21%
Five	9%	9%
Six or more	4%	2%
Tenure		
Fully owned	50%	65%
Being purchased	24%	24%
Rented - Housing Authority	15%	6%
Rented - other	7%	5%
Other tenure type	4%	0%
Aboriginal or Torres Strait Islander		
Total percentage of population	1%	0%
Country of Birth		
Australia	55%	56%
China	8%	10%
Greece	5%	4%
Language		
Speaks English only	42%	72%
Greek	16%	6%
Cantonese	11%	5%

Q1. Gender

Of the 507 respondents, 257 (51%) are female and 250 (49%) are male.

Q2. Age

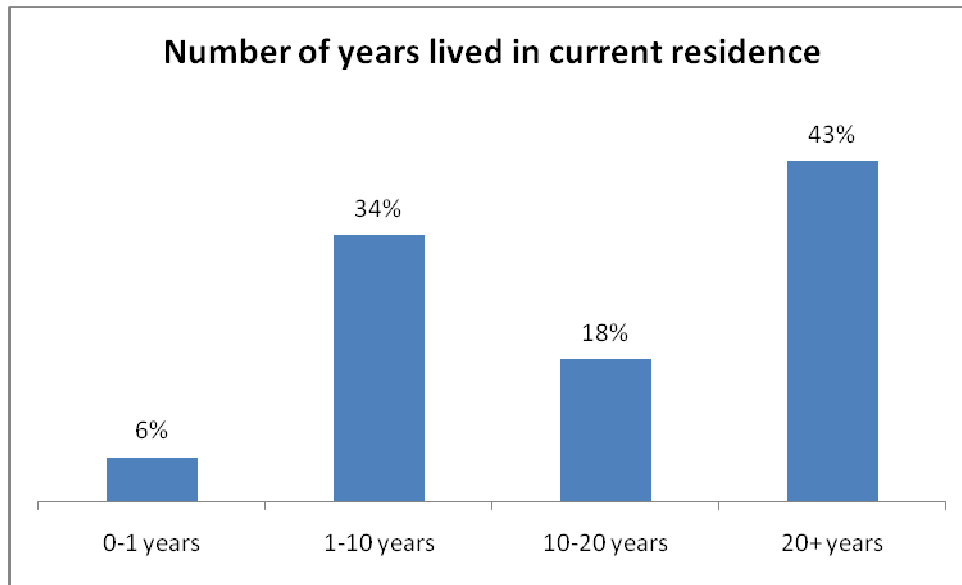
There were 511 responses to this question.



Age	Count	%
18-19 yrs	3	.6%
20-29 yrs	21	4.1%
30-39 yrs	70	13.7%
40-49 yrs	102	20.0%
50-59 yrs	88	17.2%
60-75 yrs	116	22.7%
75+ yrs	111	21.7%
Total	511	100.0%

Q3. Number of years lived in current residence

Of the 470 respondents to this question, 202 (43%) have lived in their current residence for 20 or more years.

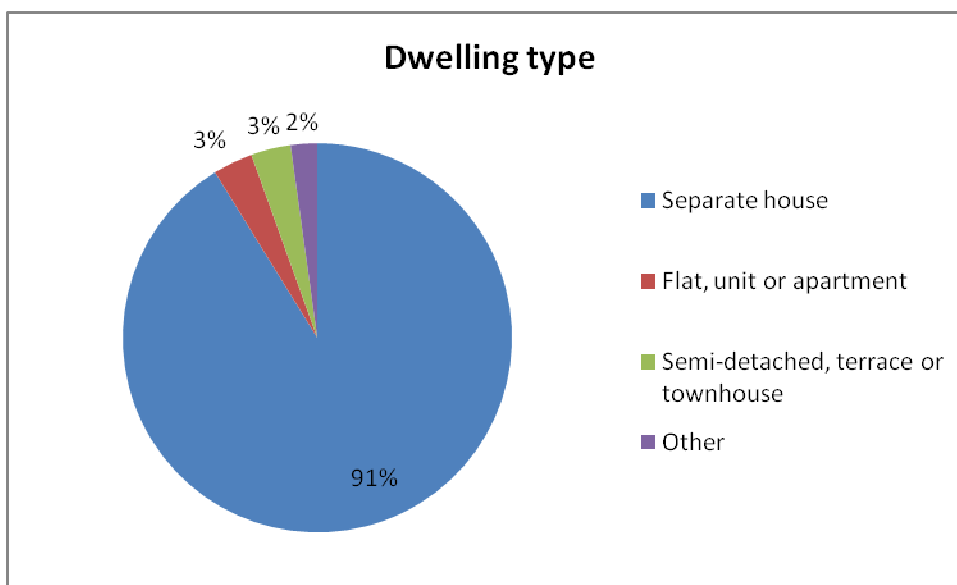


Number of years	Count	%
0-1 years	26	5.5%
1-10 years	158	33.6%
10-20 years	84	17.9%
20+ years	202	43.0%
Total	470	100.0%

For the complete list of responses please refer to Appendix C.

Q4. Type of dwelling

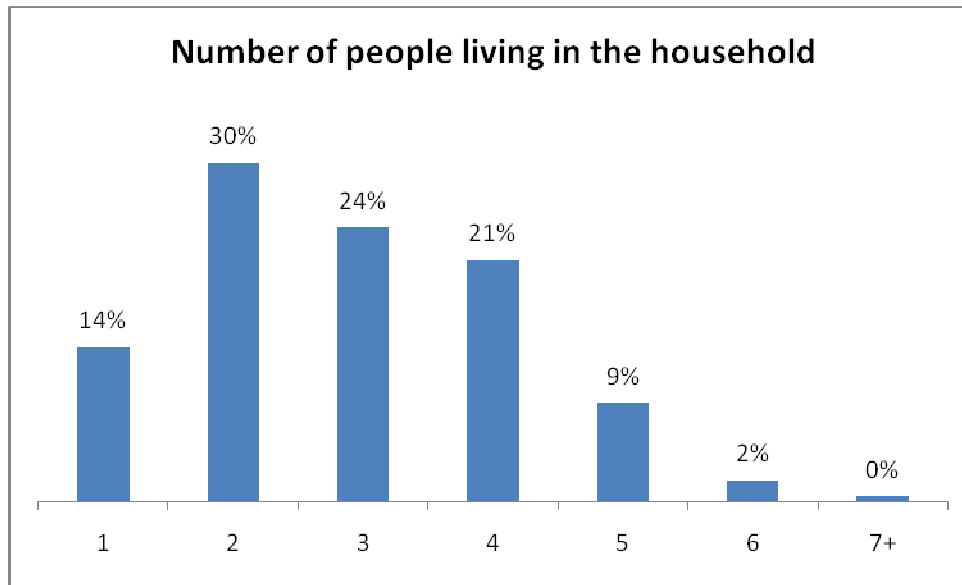
Of the 508 respondents to this question, 463 (91%) live in a separate house.



Type of dwelling	Count	%
Separate house	463	91.1%
Flat, unit or apartment	17	3.3%
Semi-detached, terrace or townhouse	17	3.3%
Other	11	2.2%
Total	508	100.0%

Q5. Number of people living in the household

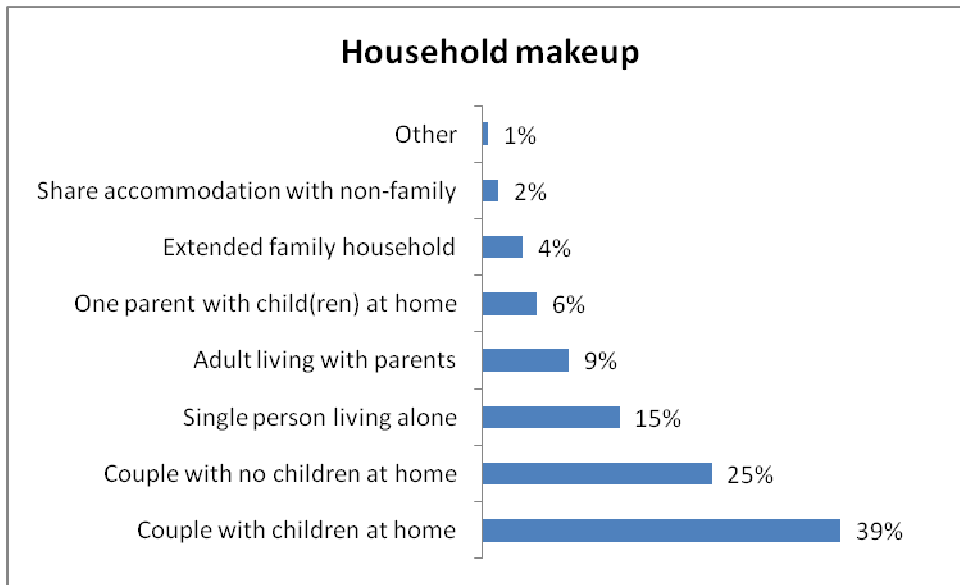
Of the 492 respondents to this question, 147 (30%) live in a 2 person household.



Number of people	Count	%
1	67	13.6%
2	147	29.9%
3	119	24.2%
4	105	21.3%
5	43	8.7%
6	9	1.8%
7+	2	.4%
Total	492	100.0%

Q6. Household makeup

508 respondents answered this question.



Household makeup	Count	%
Couple with children at home	197	38.8%
Couple with no children at home	126	24.8%
Single person living alone	75	14.8%
Adult living with parents	47	9.3%
One parent with child(ren) at home	30	5.9%
Extended family household	22	4.3%
Share accommodation with non-family	8	1.6%
Other	3	.6%
Total	508	100.0%

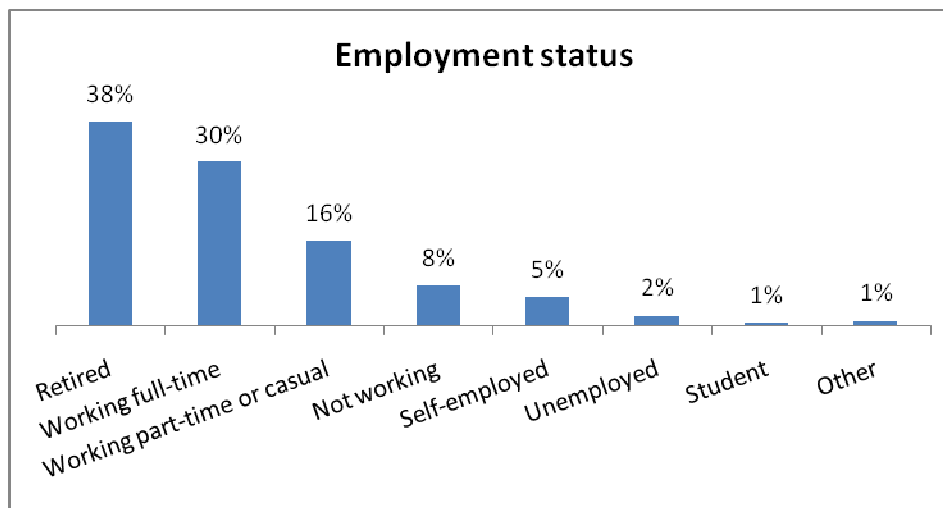
Q7. Tenure

507 respondents answered this question.

Tenure	Count	%
Fully owned	327	64.5%
Being purchased/under mortgage	123	24.3%
Rented from Public Housing	29	5.7%
Rented privately	26	5.1%
Other	2	.4%
Total	507	100.0%

Q8. Employment status

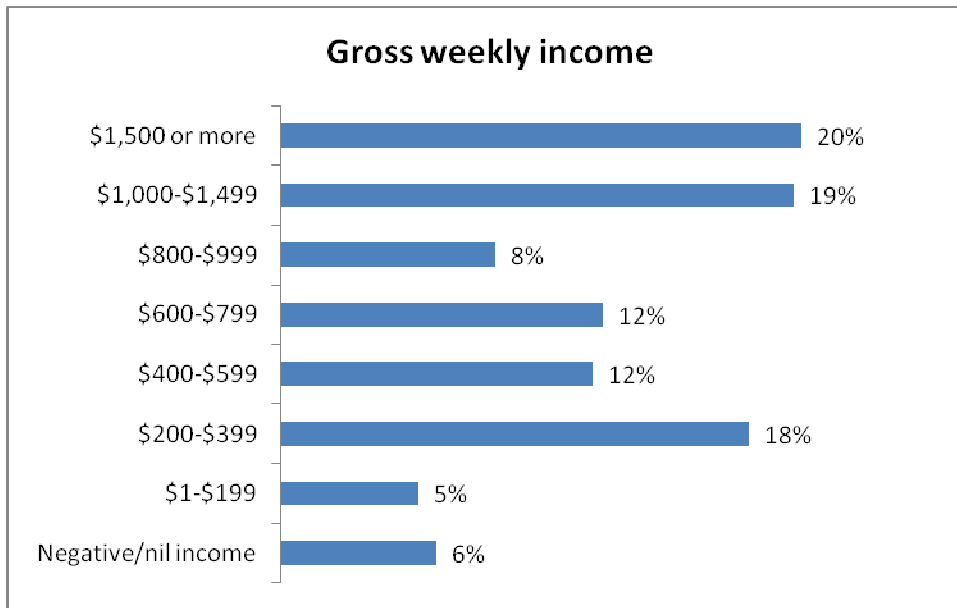
Of the 509 respondents, 192 (38%) are retired.



Employment	Count	%
Retired	192	37.7%
Working full-time	154	30.3%
Working part-time or casual	80	15.7%
Not working	38	7.5%
Self-employed	27	5.3%
Unemployed	10	2.0%
Student	3	.6%
Other	5	1.0%
Total	509	100.0%

Q9. Household weekly income before tax

Of the 458 respondents, 179 (39%) have a household income of \$1,000 or more per week.



Gross weekly income	Count	%
Negative/nil income	27	5.9%
\$1-\$199	24	5.2%
\$200-\$399	81	17.7%
\$400-\$599	54	11.8%
\$600-\$799	56	12.2%
\$800-\$999	37	8.1%
\$1,000-\$1,499	89	19.4%
\$1,500 or more	90	19.7%
Total	458	100.0%

Q10. Aboriginal or Torres Strait Islander descent

491 respondents answered this question.

One respondent was of Aboriginal or Torres Strait Islander descent.

Q11. Country of birth

Of the 492 respondents to this question, 274 (56%) were born in Australia.

	Count	%
Australia	274	55.7%
China	61	12.4%
Greece	21	4.3%
England	10	2.0%
Italy	14	2.8%
Lebanon	9	1.8%
Indonesia	9	1.8%
Other		
Asia	36	7.3%
Europe	26	5.3%
Africa	11	2.2%
Oceania	13	2.6%
The Americas	8	1.6%
Total	492	100.0%

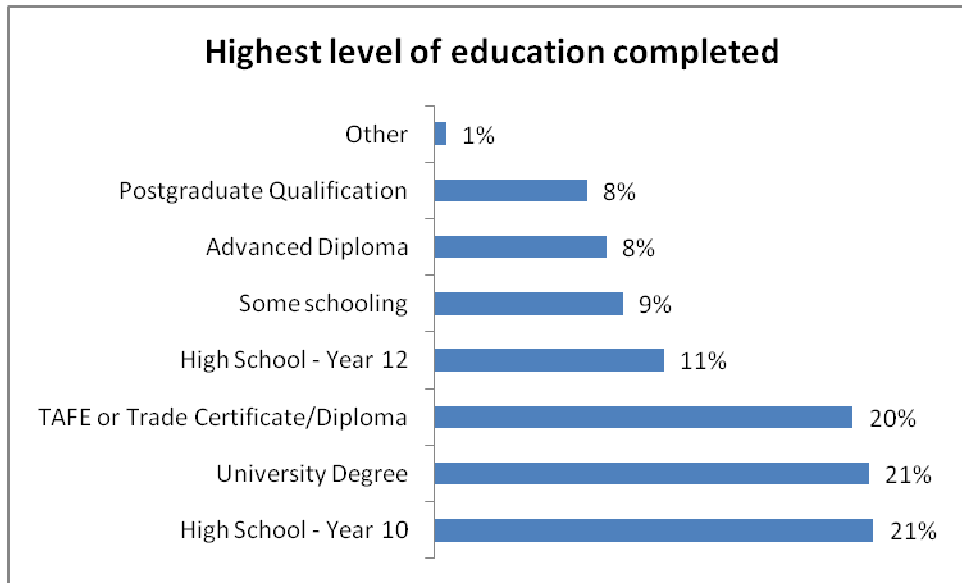
Q12. Language spoken in the home

Of the 494 respondents to this question, 356 (72%) speak English at home.

Language spoken	Count	%
English	356	72.1%
Cantonese	28	5.7%
Chinese	26	5.3%
French	21	4.3%
Greek	19	3.8%
Mandarin	17	3.4%
Italian	10	2.0%
Arabic	9	1.8%
Spanish	6	1.2%
Indonesian	5	1.0%
Vietnamese	5	1.0%
Other	11	2.2%
Tota;	494	100.0%

Q13. Highest level of education completed

Of the 509 respondents to this question, 108 (21%) have a university degree.



Level of education	Count	%
High School - Year 10	109	21.4%
University Degree	108	21.2%
TAFE or Trade Certificate/Diploma	104	20.4%
High School - Year 12	57	11.2%
Some schooling	47	9.2%
Advanced Diploma	43	8.4%
Postgraduate Qualification	38	7.5%
Other	3	.6%
Total	509	100.0%

Appendix A

4. Please indicate on a scale of 1 (strongly agree) to 5 (strongly disagree) how much you agree with the following statements.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	2	3	4	5

a. Jobs are more important than the environment.				
1	2	3	4	5
b. Access to a healthy natural environment, e.g. parks and waterways, is more important than access to community facilities, e.g. libraries, shops and restaurants.				
1	2	3	4	5
c. My daily activities have little negative impact on the waterway environment.				
1	2	3	4	5
d. Government agencies should be mainly responsible for the waterway environment rather than the individual.				
1	2	3	4	5
e. We should aim for the same waterway conditions as before the Europeans arrived more than 200 years ago.				
1	2	3	4	5
f. I would reduce my shower time by half to save limited water resources.				
1	2	3	4	5
g. Most people want to help improve the health of the waterway environment.				
1	2	3	4	5
h. Laws are more effective than education for protecting the waterway environment.				
1	2	3	4	5

5. If you have a rainwater tank how do you use the water?

- Cooking Drinking Showering
 Washing clothes Flushing the toilet
 Washing the car Watering the garden
 Nothing Other: _____

How many litres is your tank? _____

6. If you reuse greywater (water from the shower, bath or hand basins) how do you use the water?

- Cooking Drinking Showering
 Washing clothes Flushing the toilet
 Washing the car Watering the garden
 Nothing Other: _____

7. Do you have a greywater diversion and/or treatment system installed?

- Yes No

8. Do you have any of these water saving devices?

- Showerhead Tap aerator
 Toilet water flush saver Other: _____

Only answer Question 9 if you DON'T currently have a rainwater tank.

9. IF you had a rainwater tank how would you use the water?

- Cooking Drinking Showering
 Washing clothes Flushing the toilet
 Washing the car Watering the garden
 I would not use rainwater tank water
 Other: _____

Only answer Question 10 if you DON'T currently reuse greywater.

10. IF you reused greywater (water from the shower, bath or hand basins) how would you use the water?

- Cooking Drinking Showering
 Washing clothes Flushing the toilet
 Washing the car Watering the garden
 I would not reuse greywater
 Other: _____

11. What major improvement to the environment in your council area do you want to see in the next 20 years?

Thank you!



2008 Community Water Survey

Upper Wollie Creek
subcatchment



City of Canterbury
City of Cultural Diversity

Return completed survey and prize slip by the due date (see letter and prize slip) to go in the draw for a \$100 Coles Group & Myer Gift Card

Anonymity and Confidentiality

All the information you provide will be treated as strictly confidential, and will not be sold or disclosed to any third parties. No individuals, households or businesses will be identifiable in any report or data collection.

Section A

About you

This information is only used to make sure we hear from a good cross section of people in your area.

Please Tick the best answer to the following questions.

1. I am:

- Male Female

2. Age:

<input type="checkbox"/> 18-19 yrs	<input type="checkbox"/> 50-59 yrs
<input type="checkbox"/> 20 - 29 yrs	<input type="checkbox"/> 60-75 yrs
<input type="checkbox"/> 30-39 yrs	<input type="checkbox"/> 75+ yrs
<input type="checkbox"/> 40-49 yrs	

3. I have lived in this residence for _____ years.

4. I live in a:

<input type="checkbox"/> Separate house	<input type="checkbox"/> Flat, unit or apartment
<input type="checkbox"/> Semi-detached, terrace or townhouse	<input type="checkbox"/> Other (<i>specify</i>)

5. _____ (*number*) people live in this residence.

6. My household is made up of:

<input type="checkbox"/> Single person living alone	<input type="checkbox"/> One parent with child(ren) at home
<input type="checkbox"/> Couple with children at home	<input type="checkbox"/> Adult living with parents
<input type="checkbox"/> Couple with no children at home	<input type="checkbox"/> Extended family household
<input type="checkbox"/> Share accommodation with non-family	<input type="checkbox"/> Other (<i>specify</i>)

7. My home is:

- Fully owned (owner occupied)
 Being purchased/under mortgage
 Rented privately
 Rented from Public Housing
 Other (Specify _____)

8. I am:

<input type="checkbox"/> Working full-time	<input type="checkbox"/> Not working
<input type="checkbox"/> Working part-time or casual	<input type="checkbox"/> Student
	<input type="checkbox"/> Retired
<input type="checkbox"/> Self-employed	<input type="checkbox"/> Other (<i>specify</i>)
<input type="checkbox"/> Unemployed	

9. My household weekly income before tax is:

<input type="checkbox"/> Negative / Nil income	<input type="checkbox"/> \$600 - \$799
<input type="checkbox"/> \$1- \$199	<input type="checkbox"/> \$800 - \$999
<input type="checkbox"/> \$200 - \$399	<input type="checkbox"/> \$1,000 - \$1,499
<input type="checkbox"/> \$400 - \$599	<input type="checkbox"/> \$1,500 or more

10. I am from Aboriginal or Torres Strait Islander descent

- Yes No

11. I was born in (*country*) _____

12. I speak _____ (*name of language*) at home

13. The highest level of education I have completed is:

<input type="checkbox"/> Some schooling	<input type="checkbox"/> Advanced Diploma
<input type="checkbox"/> High School – Year 10	<input type="checkbox"/> University Degree
<input type="checkbox"/> High School – Year 12	<input type="checkbox"/> Postgraduate Qualification
<input type="checkbox"/> TAFE or Trade Certificate/Diploma	<input type="checkbox"/> Other (please specify)

(If you are from another state or country, tick the equivalent educational level.)

Section B

Some of the following statements refer to the 'waterway environment'. The waterway environment is all forms of natural and urban surface water, such as stormwater drains and channels, gullies, canals, streams, rivers, lakes, harbours, seawater and oceans.

Questions 1-3 are measuring general knowledge about urban water. Please do not try to find the answers, simply answer them the best you can.

Tick the best answer to all questions below.

1. In my council area the rainwater in the street drains normally goes (tick one only):

- To the sewerage system
 To the nearest waterway [i.e. Cooks River]
 Directly into the sea
 Other: _____

2. From the list below, which would normally end up in the street drains? Tick all that apply

Water from:

- the kitchen sink the washing machine
 the shower driveways, footpaths
 the toilets other paved areas
 excess water rainwater from the roof from the garden

3. On average, how many litres of water does a typical household in your local area use per day (tick one only)?

(One milk carton equals one litre of water.)

- 0-100 litres 300-400 litres
 100-200 litres 400-500 litres
 200-300 litres more than 500 litres

4. Please indicate on a scale of 1 (strongly agree) to 5 (strongly disagree) how much you agree with the following statements.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	2	3	4	5

a. Jobs are more important than the environment.				
1	2	3	4	5
b. Access to a healthy natural environment, e.g. parks and waterways, is more important than access to community facilities, e.g. libraries, shops and restaurants.				
1	2	3	4	5
c. My daily activities have little negative impact on the waterway environment.				
1	2	3	4	5
d. Government agencies should be mainly responsible for the waterway environment rather than the individual.				
1	2	3	4	5
e. We should aim for the same waterway conditions as before the Europeans arrived more than 200 years ago.				
1	2	3	4	5
f. I would reduce my shower time by half to save limited water resources.				
1	2	3	4	5
g. Most people want to help improve the health of the waterway environment.				
1	2	3	4	5
h. Laws are more effective than education for protecting the waterway environment.				
1	2	3	4	5

5. If you have a rainwater tank how do you use the water?

- Cooking Drinking Showering
 Washing clothes Flushing the toilet
 Washing the car Watering the garden
 Nothing Other: _____

How many litres is your tank? _____

6. If you reuse greywater (water from the shower, bath or hand basins) how do you use the water?

- Cooking Drinking Showering
 Washing clothes Flushing the toilet
 Washing the car Watering the garden
 Nothing Other: _____

7. Do you have a greywater diversion and/or treatment system installed?

- Yes No

8. Do you have any of these water saving devices?

- Showerhead Tap aerator
 Toilet water flush saver Other: _____

Only answer Question 9 if you DON'T currently have a rainwater tank.

9. If you had a rainwater tank how would you use the water?

- Cooking Drinking Showering
 Washing clothes Flushing the toilet
 Washing the car Watering the garden
 I would not use rainwater tank water
 Other: _____

Only answer Question 10 if you DON'T currently reuse greywater.

10. If you reused greywater (water from the shower, bath or hand basins) how would you use the water?

- Cooking Drinking Showering
 Washing clothes Flushing the toilet
 Washing the car Watering the garden
 I would not reuse greywater
 Other: _____

11. What major improvement to the environment in your council area do you want to see in the next 20 years?

Thank you!



2008 Community Water Survey

Upper Wollie Creek
subcatchment



**Hurstville
City Council**

Return completed survey and prize slip by the due date (see letter and prize slip) to go in the draw for a \$100 Coles Group & Myer Gift Card

Anonymity and Confidentiality

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Section A

About you

This information is only used to make sure we hear from a good cross section of people in your area.

Please Tick the best answer to the following questions.

1. I am:

- Male Female

2. Age:

<input type="checkbox"/> 18-19 yrs	<input type="checkbox"/> 50-59 yrs
<input type="checkbox"/> 20 - 29 yrs	<input type="checkbox"/> 60-75 yrs
<input type="checkbox"/> 30-39 yrs	<input type="checkbox"/> 75+ yrs
<input type="checkbox"/> 40-49 yrs	

3. I have lived in this residence for _____ years.

4. I live in a:

<input type="checkbox"/> Separate house	<input type="checkbox"/> Flat, unit or apartment
<input type="checkbox"/> Semi-detached, terrace or townhouse	<input type="checkbox"/> Other (specify)

5. _____ (number) people live in this residence.

6. My household is made up of:

<input type="checkbox"/> Single person living alone	<input type="checkbox"/> One parent with child(ren) at home
<input type="checkbox"/> Couple with children at home	<input type="checkbox"/> Adult living with parents
<input type="checkbox"/> Couple with no children at home	<input type="checkbox"/> Extended family household
<input type="checkbox"/> Share accommodation with non-family	<input type="checkbox"/> Other (specify)

7. My home is:

- Fully owned (owner occupied)
 Being purchased/under mortgage
 Rented privately
 Rented from Public Housing
 Other (Specify _____)

8. I am:

<input type="checkbox"/> Working full-time	<input type="checkbox"/> Not working
<input type="checkbox"/> Working part-time or casual	<input type="checkbox"/> Student
<input type="checkbox"/> Self-employed	<input type="checkbox"/> Retired
<input type="checkbox"/> Unemployed	<input type="checkbox"/> Other (specify)

9. My household weekly income before tax is:

<input type="checkbox"/> Negative / Nil income	<input type="checkbox"/> \$600 - \$799
<input type="checkbox"/> \$1- \$199	<input type="checkbox"/> \$800 - \$999
<input type="checkbox"/> \$200 - \$399	<input type="checkbox"/> \$1,000 - \$1,499
<input type="checkbox"/> \$400 - \$599	<input type="checkbox"/> \$1,500 or more

10. I am from Aboriginal or Torres Strait Islander descent

- Yes No

11. I was born in (country) _____

12. I speak _____ (name of language) at home

13. The highest level of education I have completed is:

<input type="checkbox"/> Some schooling	<input type="checkbox"/> Advanced Diploma
<input type="checkbox"/> High School - Year 10	<input type="checkbox"/> University Degree
<input type="checkbox"/> High School - Year 12	<input type="checkbox"/> Postgraduate Qualification
<input type="checkbox"/> TAFE or Trade Certificate/Diploma	<input type="checkbox"/> Other (please specify)

(If you are from another state or country, tick the equivalent educational level.)

Section B

Some of the following statements refer to the 'waterway environment'. The waterway environment is all forms of natural and urban surface water, such as stormwater drains and channels, gullies, canals, streams, rivers, lakes, harbours, seawater and oceans.

Questions 1-3 are measuring general knowledge about urban water. Please do not try to find the answers, simply answer them the best you can.

Tick the best answer to all questions below.

1. In my council area the rainwater in the street drains normally goes (tick one only)

- To the sewerage system
 To the nearest waterway [i.e. Cooks River]
 Directly into the sea
 Other: _____

2. From the list below, which would normally end up in the street drains? Tick all that apply

Water from:

- the kitchen sink the washing machine
 the shower driveways, footpaths
 the toilets other paved areas
 excess water from the garden rainwater from the roof

3. On average, how many litres of water does a typical household in your local area use per day (tick one only)?

(One milk carton equals one litre of water.)

- 0-100 litres 300-400 litres
 100-200 litres 400-500 litres
 200-300 litres more than 500 litres

4. Please indicate on a scale of 1 (strongly agree) to 5 (strongly disagree) how much you agree with the following statements.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	2	3	4	5

a. Jobs are more important than the environment.				
1	2	3	4	5
b. Access to a healthy natural environment, e.g. parks and waterways, is more important than access to community facilities, e.g. libraries, shops and restaurants.				
1	2	3	4	5
c. My daily activities have little negative impact on the waterway environment.				
1	2	3	4	5
d. Government agencies should be mainly responsible for the waterway environment rather than the individual.				
1	2	3	4	5
e. We should aim for the same waterway conditions as before the Europeans arrived more than 200 years ago.				
1	2	3	4	5
f. I would reduce my shower time by half to save limited water resources.				
1	2	3	4	5
g. Most people want to help improve the health of the waterway environment.				
1	2	3	4	5
h. Laws are more effective than education for protecting the waterway environment.				
1	2	3	4	5

5. If you have a rainwater tank how do you use the water?

- Cooking Drinking Showering
 Washing clothes Flushing the toilet
 Washing the car Watering the garden
 Nothing Other: _____

How many litres is your tank? _____

6. If you reuse greywater (water from the shower, bath or hand basins) how do you use the water?

- Cooking Drinking Showering
 Washing clothes Flushing the toilet
 Washing the car Watering the garden
 Nothing Other: _____

7. Do you have a greywater diversion and/or treatment system installed?

- Yes No

8. Do you have any of these water saving devices?

- Showerhead Tap aerator
 Toilet water flush saver Other: _____

Only answer Question 9 if you DON'T currently have a rainwater tank.

9. If you had a rainwater tank how would you use the water?

- Cooking Drinking Showering
 Washing clothes Flushing the toilet
 Washing the car Watering the garden
 I would not use rainwater tank water
 Other: _____

Only answer Question 10 if you DON'T currently reuse greywater.

10. If you reused greywater (water from the shower, bath or hand basins) how would you use the water?

- Cooking Drinking Showering
 Washing clothes Flushing the toilet
 Washing the car Watering the garden
 I would not reuse greywater
 Other: _____

11. What major improvement to the environment in your council area do you want to see in the next 20 years?

Thank you!



2008 Community Water Survey

Upper Wolli Creek
subcatchment



ROCKDALE
CITY COUNCIL
On Historic Botany Bay

Return completed survey and prize slip by the due date (see letter and prize slip) to go in the draw for a \$100 Coles Group & Myer Gift Card

Anonymity and Confidentiality

All the information you provide will be treated as strictly confidential, and will not be sold or disclosed to any third parties. No individuals, households or businesses will be identifiable in any report or data collection.

Section A

About you

This information is only used to make sure we hear from a good cross section of people in your area.

Please Tick the best answer to the following questions.

1. I am:

- Male Female

2. Age:

<input type="checkbox"/> 18-19 yrs	<input type="checkbox"/> 50-59 yrs
<input type="checkbox"/> 20 - 29 yrs	<input type="checkbox"/> 60-75 yrs
<input type="checkbox"/> 30-39 yrs	<input type="checkbox"/> 75+ yrs
<input type="checkbox"/> 40-49 yrs	

3. I have lived in this residence for _____ years.

4. I live in a:

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5. _____ (number) people live in this residence.

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<input type="checkbox"/> TAFE or Trade Certificate/Diploma	<input type="checkbox"/> Other (please specify)

(If you are from another state or country, tick the equivalent educational level.)

Section B

Some of the following statements refer to the 'waterway environment'. The **waterway environment** is all forms of natural and urban surface water, such as stormwater drains and channels, gullies, canals, streams, rivers, lakes, harbours, seawater and oceans.

Questions 1-3 are measuring general knowledge about urban water. Please do not try to find the answers, simply answer them the best you can.

Tick the best answer to all questions below.

1. In my council area the rainwater in the street drains normally goes (tick one only)

- To the sewerage system
 To the nearest waterway [i.e. Cooks River]
 Directly into the sea
 Other: _____

2. From the list below, which would normally end up in the street drains? Tick all that apply

Water from:

- the kitchen sink the washing machine
 the shower driveways, footpaths
 the toilets other paved areas
 excess water from the garden rainwater from the roof

3. On average, how many litres of water does a typical household in your local area use per day (tick one only)?

(One milk carton equals one litre of water.)

- 0-100 litres 300-400 litres
 100-200 litres 400-500 litres
 200-300 litres more than 500 litres

Appendix B

Q11. Future environmental improvements

Water	194
• Recycle stormwater	53
• Compulsory rainwater tanks in every home	23
• Fit rainwater tanks to all homes for free	13
• All homes to have grey water facilities	10
• Save water	6
• Make rainwater tanks more affordable so people can buy them	5
• Recycle water	7
• All homes to have solar hot water	2
• All houses should have rainwater saving devices	2
• Better water systems	2
• Gutters fixed and cleaned so water runoff can go down	2
• Improved water recycling	2
• Larger subsidy for rainwater tanks	2
• Old water pipes replaced, so water isn't wasted when pipes burst	2
• Rainwater to be stored in parks in underground tanks and reused instead of being wasted, as now we have many parks, there is a vast area for water storage	2
• Water is life, no water, no life	1
• All houses have water tanks and everyone abides by the laws on saving water	1
• Assistance to reuse grey water, and more encouragement to use tanks especially when house alterations are made	1
• Assistance with a rainwater tank in a villa	1
• Build reservoir for water storage	1
• Canals to divert run off water to parklands and playing fields for use or storage in water tanks	1
• Compulsory installations of rainwater tanks with financial assistance from federal government	1
• Council rebate for rainwater tanks	1
• Create another dam to help store water and to prevent possible water shortages in dry weather periods	1
• Department of Housing installing rainwater tanks	1
• Encouraging residents to use mulching bins	1
• Every house have solar panels	1
• Every household, commercial building, school etc. should have their own water tanks	1
• Every new house should have a rainwater tank or a reusable grey water system	1
• Faster response time to broken water pipes	1
• Fix leaking taps around parks and schools	1
• Remove water absorbing gardens	1
• Greywater for all parks	1
• Greywater for people to use on their houses and cars	1
• Have rebates for installing solar panels and rainwater tanks	1
• Help improve our reused water system	1

Continued on the following page

Q11. Future environmental improvements (Cont'd)

Water (Cont'd)	
• Helping with greywater reuse	1
• I want no restrictions on water	1
• I would like to see water restrictions stay	1
• Improve on the quality of drinking water	1
• Industrial use of recycled water, i.e. more efficient use of our scarce water resources, there is too much needless waste currently	1
• Install recycle water systems to replace individual rainwater tanks	1
• Intelligent use of water	1
• Less wastage of water on cars and gardens	1
• Link up Wollie Creek to Sydney's dams, currently it runs into the ocean	1
• Major recycling of water for gardens	1
• More information regarding water recycling	1
• More storage of water by individuals, companies and government bodies	1
• More water	1
• More water tanks installed in schools and Council owned properties	1
• Partial saving and treatment of stormwater for use on sports and parklands	1
• Promote easy ways to reuse greywater	1
• Promote the use of rainwater and reuse of greywater	1
• Provide and install water tanks, Council rates should be spent on this	1
• Rainwater tanks installed in or at all residential and business buildings	1
• Rainwater collected is systematically filtered specially for drinking, cooking and other multi purpose use	1
• Rainwater tanks becomes compulsory for new residential and commercial buildings	1
• Recycle greywater for toilet flushing	1
• Recycle shower water	1
• State and federal government to build dams on the Shoalhaven and Colo Rivers for a secured water supply	1
• Stop polluting the waterways from run off	1
• More money to change toilets to water saving toilets	1
• Street drainage and use of sewerage water after treatment	1
• Stricter policing of illegal water use	1
• Subsidy for purchase of water tank and plumbing for greywater	1
• Supply people with water saving devices such as tap aerators	1
• There is no need for desalination	1
• Unrestricted water use for gardening	1
• Use of rainwater from house gutters, without using tanks for gardens	1
• Use sea water to flush toilets	1
• Water conservation	1
• Water initiatives and rewards for households that don't use much water	1

Continued on the following page

Q11. Future environmental improvements (Cont'd)

Water (Cont'd)	
• Water tanks for all public buildings	1
• Water tanks for pensioners	1
• We need the government to help households build a water saver environment, e.g. rainwater tanks	1
• Would like a system where drinking and cooking water is divided and we can use that solely for cooking and another system for gardening and showering	1
Parks/gardens/trees	74
• Plant more trees	18
• More parklands/green areas	17
• Frequent parks and reserves upgrades	2
• Protection of existing parklands	2
• Remove some of the very large unsuitable trees from the streets	2
• Areas set aside as nature reserves for native plants and animals	1
• Better care of parks and gardens	1
• Better management of old trees as they can be dangerous	1
• Better public gardens	1
• Bigger parks with more flowers and trees	1
• Change the bigger trees to smaller trees, because the roots break the water pipes and walls	1
• Control of introduced weeds in natural bushland	1
• Council should prune trees	1
• Cut the really tall trees which damage the drains	1
• Elimination of huge Tallowood gums which have an excessive thirst and deprive households of natural light and promote excessive use of electricity for light and warmth in winter	1
• Have the same trees the whole way down a street	1
• Low growing trees on the nature strips	1
• More focus on nature plantings to help maintain our parks and streets	1
• More parks, less golf courses	1
• More parks, tennis courts and netball courts	1
• More regenerated bushland	1
• More regulations regarding tree removal on domestic properties	1
• More reserves and picnic areas	1
• More suitable trees planted	1
• More trees and shade in public schools and parks	1
• Natural rock formations and cliffs cleared of vegetation	1
• Parks and playing fields maintained for future citizens	1
• Proper maintenance of trees growing on street	1
• Remove concrete pathways in Bardwell Valley parklands and replace with narrow walking tracks. Use the extra space to replant native gully rainforest vegetation	1
• Remove gumnut trees which line our streets and replant new trees that don't lose so many leaves in winter, and create mess all over the streets that require a sweep truck to clean up	1

Continued on the following page

Q11. Future environmental improvements (Cont'd)

Parks/gardens/trees (Cont'd)	
• Remove trees that have overgrown in the streets. The trees are so unhealthy from being cut from the top because of the wires and lines, they should just remove them and make more parks	1
• Restore access to Smith Park and replace amenities	1
• Restore facilities in Smith Park and gardens in Morgan Street, Kingsgrove	1
• Safe, clean, people friendly parks	1
• Sensitive trimming of trees on nature strips	1
• There should be more trees left on blocks of land when houses are demolished	1
• Trees and plants planted in the streets	1
• Trim trees on Morgan Street, the falling leaves are a big problem	1
Cleanliness/beautification	71
• Clean up Wolli Creek	11
• Cleaner streets and footpaths	11
• Clean up the Cooks River	7
• Cleaner waterways	6
• Keep the rubbish out the drains	4
• Cleaner air	2
• Cut grass	2
• A cleaner environment	1
• Brighten up parks	1
• Clean Botany Bay, the water makes your skin very itchy when swimming at Brighton Le Sands, e.g. sea lice	1
• Clean up main roads, especially Kingsgrove Road	1
• Cleaner and healthier environment	1
• Cleaner beaches	1
• Cleaner streets which flow into the waterways	1
• Cleaning of Wolli Creek from Bexley North to Turrella as there are thousands of plastic bags caught in the bushes and in the water	1
• Cleaning up excess weeds	1
• Council to clean the footpaths and cut the grass	1
• Council workers do a little more to keep Rockdale clean	1
• Council workers to be more vigilant in attending to untidy areas around our suburbs	1
• Cut grass on the footpath	1
• Encourage people not to throw rubbish on the footpath	1
• Enforce the law of discarding rubbish on the ground, especially cigarette butts	1
• Fix up Bardwell Valley Creek and bushland	1
• Greater maintenance of flora in parks	1
• Heavier penalties for polluting waterways	1
• Improved attitude of people who dump rubbish and litter streets, parks and waterways with plastic bottles and refuse from take away shops	1

Continued on the following page

Q11. Future environmental improvements (Cont'd)

Parks/gardens/trees (Cont'd)	
• Keep trees in the street trimmed and the leaves collected from the gutters as they presently block the drains during heavy rain	1
• Less polluted water courses and better drainage	1
• Our waterway environments to be rubbish, waste free and clean	1
• Removal of graffiti	1
• Removal of leaves etc. from gutters and drains	1
• Remove pests and introduced plants e.g. foxes, lantana from Wollie Creek	1
• Safe and clean streets	1
• Serviced nets to catch large items entering the river systems	1
• Wollie Creek should have more water flowing and it should be cleaner	1
General environment	47
• More solar energy use	5
• Solar heating	3
• Cut all the pollution	2
• Every home to have solar panels	2
• Improve the environment	2
• Less usage of cars	2
• Limit the emissions from cars	2
• Air pollution	1
• Air pollution to be monitored closely due to the motorway in our area	1
• Anything that will be most ecologically sustainable	1
• Ban wood burning fires	1
• Build cars that are better for the environment	1
• Carbon emission tax on business and households	1
• Clean environment with trees	1
• Cleaner air	1
• Control of contaminants near natural waterways	1
• Council doing good for the environment	1
• Council to set the example for the value of the environment, parks etc.	1
• Extensive use of solar power	1
• Filter car emissions from tunnels, M5 East	1
• For the M5 Linear Park maintenance staff to stop using herbicide as a maintenance tool to keep plants from around posts, poles edges and steep banks	1
• Help families with solar systems	1
• I hope to see major improvements to the environment in all Council areas in the next 20 years	1
• If available, park cars off the streets	1
• Increased awareness of the community	1
• Less pollution from traffic through better public transport	1

Continued on the following page

Q11. Future environmental improvements (Cont'd)

General environment (Cont'd)	
• Less toxic emissions	1
• Make environmental devices cheaper	1
• More education in the community	1
• No petrol cars	1
• Provide a better environment	1
• Recycle plastic shopping bags or ban them	1
• Reduce carbon emissions	1
• Reduce greenhouse gas	1
• Remove cars older than 15 years from the streets, as it's inefficient and produces pollution	1
• Use fewer plastic rubbish bags	1
Roads/transport	23
• More cycleways and walking tracks	7
• Better public transport	4
• More car parks at train stations to encourage the use of public transport	2
• Better roads	1
• Bicycle path next to our road	1
• Cleaner main roads, e.g. Kingsgrove Road, between Homer Street and the entrance to the M5	1
• Cycleways that are safe and go somewhere	1
• Fix footpaths	1
• Less cars on road and more use of public transport	1
• More government owned public transport	1
• More road cleaning	1
• RTA should fix the leaks in the roads	1
• The road to Campsie needs to be raised to clear the drain beyond Bexley North station, which regularly floods the road	1
Waste management	19
• Better garbage facilities	3
• Drain covers to stop rubbish going into storm water outlets	2
• More recycling	2
• A greater commitment by the business community to recycle and reduce waste	1
• Discourage copious amounts of junk mail, unnecessary use of paper and increased waste	1
• Eliminate illegal dumping of rubbish	1
• Enforce existing laws and clear debris from existing gutters and drains	1
• Green waste bins	1
• Household organic material, i.e. vegetable and fruit, meat scraps, napkins etc. all recycled and composted to reduce red bin rubbish waste	1
• Less rubbish	1
• Maintain recycling program	1

Continued on the following page

Q11. Future environmental improvements (Cont'd)

Waste management (Cont'd)	
• More recyclable materials	1
• Prevent rubbish entering waterways	1
• Regular clearing of drains in the streets	1
• To make alternative provision for household waste disposal	1
Development	18
• All new built homes should have water saving systems	3
• Fewer high rise developments	3
• A single family home per 500m ²	1
• Build more dams	1
• Demolition of the huge house at 14 Moya Crescent	1
• Ensuring that new houses built do not occupy most of building lot, leaving little or no room for gardens, trees and playing areas for children and pets	1
• High rise to be very restricted	1
• Less buildings	1
• Less stress on the environment by providing adequate infrastructure when increasing population housing	1
• Mandatory tanks for large commercial and industrial complexes	1
• More modest scale development rather than big houses on small blocks	1
• Move the factory on Commercial Road, Kingsgrove	1
• Not as many multi story buildings with no gardens	1
• Shopping malls	1
Education	10
• Accessible exhibitions so the public can see how an individual can help to save the environment for the future	1
• Education	1
• Education of the public about preserving our environment	1
• Education on greywater use and storage	1
• Help and encourage residents to use green electricity and rainwater tanks	1
• Invest in education programs to target community awareness about the environment	1
• More advertising and education should be made available to the public on greenhouse gases, water usage and recycling etc.	1
• More education about environmental issues	1
• More resources to educate children and the general public	1
• Workshops to show the advantages of greywater and rainwater tanks	1
Other	23
• Cover outdoor pool at Roselands	2
• Dog friendly parks	2
• Removal of overhead electrical and other wires	2
• Ban on cigarettes in public places	1
• Better use of available resources	1

Continued on the following page

Q11. Future environmental improvements (Cont'd)

Other (Cont'd)	
• Children	1
• Council rates to be reduced	1
• Councils listening to residents and implementing policies	1
• Cover all open drains for safety during wet weather	1
• Don't spoil the beauty of Botany Bay with a marina	1
• Enforcement of legislation without bias	1
• Health	1
• I wish for my Council area to become the best area to live in	1
• Less noise created from the railway	1
• Management of Brighton Beach	1
• More car free areas	1
• Rangers who are multi skilled and have the authority to police and fine on multi law breaches, which are not policed at all or only superficially	1
• To stop wasting ratepayers' money and get it right	1
• Volunteers encouraged, assisted and financed more	1
• We support the Council for any project to conserve water and the environment	1

Appendix C

Results of Section A – Question 3 Number of years lived in this residence.

Number of years	Count	%
1	26	5.5%
2	27	5.7%
3	15	3.2%
4	10	2.1%
5	26	5.5%
6	15	3.2%
7	15	3.2%
8	21	4.5%
9	6	1.3%
10	23	4.9%
11	8	1.7%
12	15	3.2%
13	6	1.3%
14	6	1.3%
15	14	3.0%
16	9	1.9%
17	6	1.3%
18	7	1.5%
19	3	.6%
20	10	2.1%
21	8	1.7%
22	4	.9%
23	2	.4%
24	3	.6%
25	15	3.2%
26	3	.6%
27	3	.6%
28	8	1.7%
29	7	1.5%
30	18	3.8%
31	3	.6%
32	8	1.7%
33	11	2.3%

Number of years	Count	%
34	1	.2%
35	12	2.6%
36	3	.6%
37	3	.6%
38	4	.9%
39	4	.9%
40	9	1.9%
41	1	.2%
42	2	.4%
43	4	.9%
44	5	1.1%
45	3	.6%
46	4	.9%
47	1	.2%
48	1	.2%
49	1	.2%
50	10	2.1%
51	4	.9%
52	7	1.5%
53	2	.4%
54	2	.4%
55	4	.9%
56	3	.6%
57	4	.9%
58	4	.9%
59	1	.2%
60	3	.6%
61	2	.4%
64	2	.4%
68	1	.2%
69	1	.2%
70	1	.2%
Total	470	100.0%