# **3 ENVIRONMENTAL ISSUES**

This section provides an overview of the issues respondents consider important in relation to the Waikato region environment. It looks at respondents' overall satisfaction with the local environment and then reviews the key environmental issues facing the Waikato region currently and in the future.

### Key findings are:

- Respondents' overall mean rating of their satisfaction with their local environment on a scale of 1 (completely unsatisfactory) to 10 (perfect in every way) is 6.47. This represents a slight increase from the 2006 result and is similar to those seen in 1998 and 2000.
- Water pollution/quality: The most frequently mentioned environmental concern for Waikato region's respondents continues to be water pollution, and this survey shows a significant increase in the level of concern for water pollution/quality on previous survey findings. Since 2000, water pollution has also consistently been reported as the most important environmental issue facing the Waikato region in five years' time. Furthermore, this survey shows a significant increase, with total water pollution issues increasing from 43 per cent in 2006 to 67 per cent in 2013. However, please note that this survey was conducted during the summer of 2013 when the Waikato region had been declared as a drought zone. This point needs to be considered when comparing the changes in water-related measures from 2006 to 2013, particularly with relation to quality and availability mentions.
- Rubbish and recycling: This is the second most frequently mentioned environmental concern and the third most important issue facing the Waikato region in the next five years. However, concern for rubbish and recycling issues remains similar to the 2006 findings, although concern about rubbish disposal has dropped.
- Air pollution: In terms of the most frequently mentioned environmental concern for the Waikato region, this issue is at its lowest level of concern when compared to previous surveys. In addition, a smaller proportion of respondents state this as the 'next most important issue' than in 2006. General pollution (4%) and climate change/global warming/ ozone layer (5%) make up the majority of this issue however, mentions of specific sources of pollution (households 0.5%) and vehicles (1%) also occur (total 10%).

# 3.1 SATISFACTION WITH THE LOCAL ENVIRONMENT IN GENERAL

At the end of the survey, respondents were asked to take everything into account and report *how satisfied they are with their local environment in general.* Respondents were requested to use a 10-point scale, where 1 means they find their local environment completely unsatisfactory and a score of 10 means their local environment is perfect in every way.

# 3.1.1 OVERALL SCORE AND COMPARISON WITH PREVIOUS YEARS

The overall mean score is 6.47, with the greatest proportion of respondents scoring their local environment a five (15%), six (20%), seven (33%) or an eight (18%) on the 1-to-10 scale. Eight per cent of respondents give their local environment a rating of less than five.

Although the distribution of results across the 10-point scale is similar to the 2006 survey, the overall result shows a reverse in the downward trend in satisfaction with local environment scores. Results improved from a mean score of 6.28 in 2006 to 6.47 in 2013.

	1998	2000	2003	2006	2013	Change	Change
	%	%	%	%	%	98-13	06-13
One - completely	<0.5	1	1	2	1	+1	-1
unsatisfactory							
Тwo	<0.5	1	1	1	1	+1	-
Three	2	2	2	2	2	-	-
Four	5	6	6	6	4	-1	-2
Five	17	16	19	17	15	-2	-2
Six	20	22	21	21	20	-	-1
Seven	31	30	29	31	33	+2	+2
Eight	19	17	17	16	18	-1	+2
Nine	5	3	3	3	4	-1	+1
Ten - perfect in	1	1	1	1	1	-	-
every way							
Mean	6.50	6.42	6.32	6.28	6.47	-0.03	+0.19
Unsure/don't know	<0.5	1	<0.5	0	1	+1	+1
Base (respondents)	1037	1873	1822	1000	1005		

Table 3-1: Distribution of Scores for Satisfaction with Local Environment

### 3.1.2 DEMOGRAPHIC VARIATION

Respondents with the **highest mean scores** for satisfaction with the local environment are those who are:

- of New Zealand ethnicity (6.61)
- aged between 60 and 64 years (6.69)
- educated to a secondary school level (6.50)
- middle-aged single couple (6.60)
- working full time (6.51).

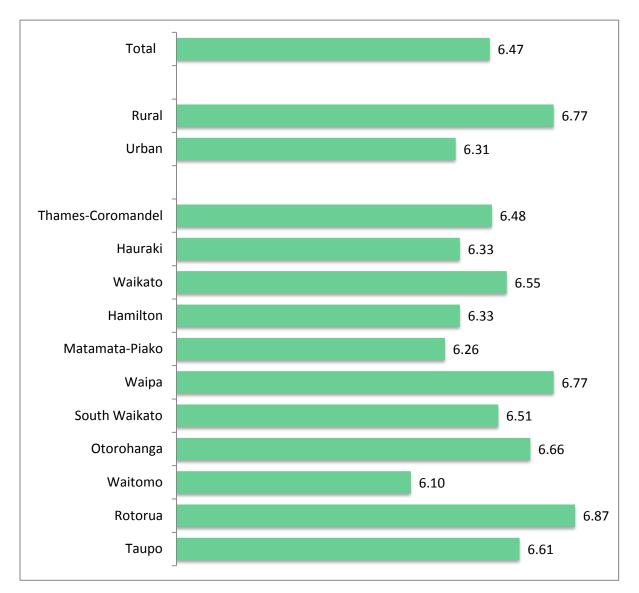
In contrast, respondents with the **lowest mean scores** for the local environment are those:

- with a household income of less than \$30,000 per annum (6.08)
- aged between 18 and 19 years of age (6.16)
- in a group-flatting situation (4.81)
- who are students (5.98)
- who have some Māori ancestry (6.19).

### **3.1.3 GEOGRAPHIC VARIATION**

When considered by territorial authority and by urban and rural locations, the following differences emerge:

- Mean scores given by respondents are **highest** in Rotorua (6.87), Waipā (6.77), and Otorohanga (6.66).
- Mean scores are lowest in Waitomo (6.10) and Matamata-Piako (6.26).
- Rural respondents (6.77) rate their local environment more positively than urban respondents (6.31).



### Figure 3-1: Mean Rating of Satisfaction with Local Environment by Urban/Rural and Territorial Authority

# **3.1.4 ENVIRONMENTAL SATISFACTION INDEX (ESI)**

To provide a summary measure of Environmental Satisfaction, responses to the overall satisfaction questions are classified into three groups:

- Not satisfied (respondents who give a rating of 1,2,3 or 4 out of 10)
- Satisfied (respondents who give ratings of 5,6 or 7 out of 10)
- Very satisfied (respondents who give ratings of 8, 9 or 10 out of 10).

The majority of responses are classified as satisfied (68%) with 23 per cent classified as very satisfied and the minority classified as not satisfied (11%). These groupings have remained reasonably consistent since 1998.

Table 3-2:	Classification of Environmental Satisfaction Index 1998 to 2013
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	1998	2000	2003	2006	2013	Change	Change
	%	%	%	%	%	98-13	06-13
Very satisfied	25	22	21	20	23	-2	+3
Satisfied	67	69	70	69	68	+1	-1
Not satisfied	8	9	9	11	8	0	-3
Base (respondents)	1037	1873	1822	1000	1005		

### 3.1.4.1 DEMOGRAPHIC VARIATION

Respondents who are significantly more likely (than the regional average) to be **very satisfied** with their local environment are those who:

- are of New Zealand ethnicity (28%)
- have no Māori ancestry (26%)
- have an annual household income of \$150,000 or more (36%)
- are aged between 50 and 59 years (29%).

Respondents who are significantly more likely (than the regional average) to be **satisfied** with their local environment are those who:

- are in a household with mainly preschool children (80%)
- are aged between 20 and 39 years (77%).

Respondents who are significantly more likely (than the regional average) to be **not satisfied** with their local environment are those who:

- are of Māori ethnicity (15%)
- are male (11%)
- are currently students (20%)
- have an annual household income of \$30,000 or less (13%)
- are aged between 18 and 19 years (21%).

### 3.1.4.1.1 GEOGRAPHIC VARIATION

When considered by territorial authority and by urban and rural locations, the following differences emerge:

- Respondents living in Taupo are more likely (than the regional average) to be **very satisfied** with their local environment (32%).
- Respondents living in Waitomo are more likely to be **not satisfied** with their local environment (14%).
- Respondents living in a rural area are more likely to be to be **very satisfied** with their local environment (31%), whereas those living in urban areas are more likely to be satisfied (71%) or not satisfied (10%).

# 3.2 MOST IMPORTANT ENVIRONMENTAL ISSUE FACING THE WAIKATO REGION

Respondents were asked what they think is the single most important environmental issue facing the Waikato region today.

### 3.2.1 OVERALL RESULT AND COMPARISON WITH PREVIOUS YEARS

- Water pollution/quality: The most frequently mentioned environmental concern for Waikato region's respondents continues to be water pollution. This survey shows a significant increase in the level of concern for water pollution/quality on previous survey findings (41% in 2013 compared to 18% in 2006), however there is also an increase in the number of contributing agricultural effects with waste to waterways (2%), agriculture general (2%) and agriculture pollution (0.5%) all new mentions in 2013. It is interesting to note that the majority of respondents' verbatim comments relating to water refer directly to water quality rather than to water pollution per se (this was also observed in responses to *the next most important issue* and *the most important issue in five years' time*).
- Rubbish and recycling: Overall, concern for rubbish and recycling issues remains similar to the 2006 findings, although there is a decrease in the number of respondents who mention rubbish disposal and a corresponding increase in the number of respondents who mention littering.
- Air pollution: This issue is at its lowest level of concern when compared to previous surveys (4% compared to 9% in 2006).

Please note: Multiple responses to this question were permitted. Consequently the table may total more than 100 per cent.

	1998	2000	2003	2006	2013
	%	%	%	%	%
Water Pollution/Quality – Total	33	39	45	43	67
Water – pollution/quality	25	30	26	18	41
Water – availability and quantity for	8	9	3	13	10
use					
Water – overuse	-	-	-	-	1
Water – sewage	-	-	-	-	1
Agriculture – effluent disposal/run off	-	-	5	5	3
Agriculture – waste to waterways	-	-	-	-	2
Agriculture – general	-	-	-	-	2
Agriculture – fertiliser/nitrogen run off	-	-	1	2	1
Agriculture – pollution	-	-	-	-	0.5
Waikato River – water, clean up the river	-	-	8	3	5
Lake Taupo – water pollution, clean up the lake	-	-	1	1	0.5
Marine environment	-	-	1	1	-

### Table 3-3: Single Most Important Environmental Issue Facing Waikato Region 1998 to 2013

	1998	2000	2003	2006	2013
	%	%	%	%	%
Rubbish and Recycling – Total	32	26	8	13	11
Littering	3	2	1	2	5
Recycling	7	3	<0.5	3	2
Waste – general					2
Rubbish disposal	17	19	5	7	1
Dumps/landfills	5	2	1	1	1
Air Pollution – Total	10	4	3	9	3
Air pollution – general					2
Air pollution – households	-	-	-	-	1
Other Issues	39	24	40	22	25
Drought	-	-	-	-	5
Town planning/urban sprawl/graffiti	-	1	2	2	2
Pollution/general pollution –	5	6	4	4	1
industrial					
Coastal effects	-	-	-	-	1
Council administrative issues	-	1	1	1	1
Environmental education	2	-	1	< 0.5	1
Environment management – costs	-	-	-	-	1
and charges					
Erosion/deforestation/preserve	-	2	1	2	1
natural environment					
Land – preserving native	-	-	-	-	1
environment/maintain native					
biodiversity of plants and birds					
Mining of land	-	-	-	-	1
Land – biodiversity and chemical use	-	-	-	-	1
Land use/managing resources	-	1	2	1	1
Climate change/global warming/	-	1	1	1	1
Ozone layer					
Pests – in water, weeds and algal	-	-	-	-	1
Plant pests (previously Noxious	3	3	2	1	1
weeds)					
Population increase	-	-	2	< 0.5	1
Social issues – general	-	-	-	-	1
Sprays/pesticides/poisons	4	3	3	2	1
Transport – congestion/roading (previously Transport)	6	1	5	3	1
Animal pests and disease (previously	5	3	6	1	0.5
Pest control)	5	5	5	-	0.5
Coastal development, access, erosion	_	-	-	1	0.5
Natural hazards, including flooding	2	2	2	2	< 0.5
(previously Drainage/flooding)	-	-	-	-	
Electricity/power generation/energy	_	-	< 0.5	2	-
supply			2.2	-	
Public transport/cycleways	-	-	-	1	-
Sewage	-	1	1	1	-
Native birds/trees	-	1	1	< 0.5	-
General concern	-	1	1	< 0.5	-

### Table 3-3:Most Important Environmental Issue Facing Waikato Region 1998 to 2013 cont.

	1998	2000	2003	2006	2013
	%	%	%	%	%
Other	17	3	3	1	-
Nothing/everything is fine	-	1	2	3	-
Don't know/no reply	8	9	12	10	11
Base (respondents)	1037	1873	1822	1000	1005

 Table 3-3:
 Single Most Important Environmental Issue Facing Waikato Region 1998 to 2013 cont.

# **3.2.2 DEMOGRAPHIC VARIATION**

Some respondents are significantly more likely (than the regional average) to identify with specific environmental issues facing the Waikato region. These are:

### Water Polluton/Quality

- Water pollution/quality: those with an annual household income of between \$90,001 and \$150,000 per annum (48%), those educated to a tertiary level (47%), or those working full time (45%)
- Water availability and quantity for use: Māori (15%), those aged between 20 and 29 years (17%), those working part time (17%)
- Agriculture general: European (3%), those with Māori ancestry (4%), those with a household income of between \$200,001 and \$300,001 per annum (9%), or those educated to a secondary school level (3%)
- Agriculture fertiliser run off: European (1%), or males (1%)
- Agriculture effluent run off: those aged between 50 and 59 years (7%), in an older household without children (10%), or males (5%)
- Agriculture waste to waterways: those with a household income of between \$90,001 and \$150,000 per annum (5%).

### **Rubbish and Recycling**

• Waste littering: Māori (8%), those in a family household with school-aged children (7%), those aged between 18 and 19 (12%), or those educated to a secondary school level (7%).

### Air Pollution

• Air pollution: Māori (5%), those who are educated to a secondry school level (5%), those aged between 18 and 19 years (7%), students (7%), or those who are unemployed (7%).

### Other Issues

- Drought: Māori (12%), those aged between 20 and 29 years (12%), or those working part time (9%)
- Climate change/global warming/ozone layer: Māori (4%), those who are currently unemployed (5%) or those aged between 20 and 29 years (4%)
- Land use: European (2%), those aged between 50 and 59 years (2%), or males (1%)
- Coastal effects: those aged between 60 and 64 years (4%)
- Transport congestion: those who are currently unemployed (6%).

# 3.2.3 GEOGRAPHIC VARIATION

When considered by territorial authority and by urban and rural location, respondents are more likely (than the regional average) to mention the following points in:

- Thames-Coromandel: preserving the native environment (4%), coastal effects (12%), biodiversity and chemical use (4%), land mining (7%), land erosion (2%), coastal erosion (2%), or plantation forestry (1%)
- Hauraki: costs of environmental management (4%), town planning issues (3%), or natural hazards (3%)
- Waikato: waste littering (12%)

- Hamilton: the Waikato River (10%), transport congestion (4%), over-use of water (3%), or vehicle pollution (2%)
- Matamata-Piako: water availability and quantity for use (19%), agricultural pollution (4%), or sewage (4%)
- Waipā: global warming (3%), population increases (2%) or industrial pollution (2%)
- South Waikato: air pollution generally (11%), air pollution from households (5%), deforestation (4%), or the district's administration of the environmental management (2%)
- Otorohanga: don't know (20%), agricultural effluent/run off (7%) or air pollution from households (5%)
- Rotorua: water pollution/quality (54%) or pollution in general (4%)
- Taupo: in waterweeds or algae (5%) or Lake Taupo (7%).

No respondents from Waitomo or an urban or rural setting are more likely (in terms of significance) to mention a particular environmental issue.

# **3.3 THE NEXT MOST IMPORTANT ENVIRONMENTAL ISSUE**

Respondents were asked what they think the next most important environmental issue is facing the Waikato region today.

- Water pollution/quality: This is the most frequently mentioned next most important issue (20%), with water quality increasing significantly on the 2006 findings.
- Rubbish and recycling: This is second most frequently mentioned issue in this category (19%, next most important environmental issue), with the issue of littering showing an increase on the 2006 findings. It is interesting to note that there is very little difference between the 'most' important issue (water pollution, total of 20%) and the 'second' most important issue (rubbish and recycling, total of 19%); this is similar to the pattern of responding seen in 2006.
- Air pollution: This is the next most frequently mentioned issue; however a smaller proportion of respondents stated this as 'next most important issue' than in 2006.

Please note: Multiple responses to this question were permitted. Consequently the table may total more than 100 per cent.

	2000	2003	2006	2013
	%	%	%	%
Water Pollution/Quality – Total	20	20	18	20
Water – pollution/quality	13	13	6	12
Water – availability and quantity for use	7	1	8	1
Water – sewage	-	-	-	1
Agriculture – effluent disposal/run off	-	2	1	2
Agriculture – waste to waterways	-	-	-	1
Agriculture – general	-	-	-	0.5
Agriculture – fertiliser/nitrogen run off	-	1	1	0.5
Agriculture – pollution				0.5
Waikato River – water, clean up the river	-	2	1	1
Marine water quality	-	1	1	0.5

#### Table 3-4: The Next Most Important Environmental Issue Facing the Waikato Region 2000 to 2013

# Table 3-4:The Next Most Important Environmental Issue Facing the Waikato Region 2000 to 2013<br/>cont.

	2000	2003	2006	2013
	%	%	%	%
Rubbish and Recycling – Total	12	11	16	19
Recycling	-	-	6	4
Rubbish disposal	10	8	5	4
Littering	1	1	3	7
Dumps/landfills	1	2	2	1
Waste – general	-	-	-	3
Air Pollution – Total	5	9	12	8
Air pollution – general	5	9	12	5
Air pollution – vehicles	-	-	-	2
Air pollution – households	-	-	-	1
Other Issues	25	47	36	26
Erosion/deforestation/preservation of natural	4	3	4	3
environment		_		_
Pollution/general pollution – industrial	4	4	3	2
Plant pests (previously Noxious weeds)	4	5	3	2
Social issues – general	-	-	-	2
Transport – congestion/roading (previously	1	11	6	2
Transport)	-		0	-
Transport – more roads needed	-	-	-	2
Environmental management – costs and	-	-	-	1
charges				_
Land use/managing resources	1	2	1	1
Land erosion	-	-	-	1
Mining of land	-	-	-	1
Climate change/global warming/ozone layer	1	1	1	1
Parks and reserves	<0.5	1	2	1
Pests – animals	-	-	-	1
Pests – in water, weeds and algal	-	-	-	1
Population increase	<0.5	1	1	1
Social issues – visual pollution	-	-	-	1
Town planning/urban sprawl/graffiti	1	3	2	1
Drought	-	-	-	0.5
Environmental education	1	1	1	0.5
Public transport/cycleways	-	-	2	0.5
Coastal development, access, erosion	-	-	2	<0.5
Electricity/power generation/energy supply	-	-	1	<0.5
Fencing off waterways/bush	-	1	1	<0.5
Sprays/pesticides/poisons	4	3	1	<0.5
Council administrative issues	-	-	1	-
Native birds/trees	3	2	1	-
Sewage	1	1	1	-
Noise	-	1	1	-
General concern	1	1	< 0.5	-
Other	-	4	1	-
Nothing	-	-	6	1
Don't know/no reply	26	14	16	31
Base (respondents)	1873	1822	864	894

# **3.3.1 DEMOGRAPHIC VARIATION**

Some respondents are significantly more likely (than the regional average) to identify with other specific environmental issues facing the Waikato region. These are:

### Water Pollution/Quality:

- Water pollution/quality: those with a household income of \$30,000 or less per annum (22%)
- Agriculture effluent/run off: European (3%), those who undertake home responsibilities (5%), or those in family households with preschool children (5%).

### **Rubbish and Recycling:**

- Waste rubbish disposal: those educated to a tertiary level (7%), those with a household income of between \$150,001 and \$200,000 per annum (10%), or those who are currently students (14%)
- Waste recycling: those who are qualified to a tertiary level (7%)
- Waste littering: those aged between 30 and 39 years (11%), those with a household income of between \$150,001 and \$200,000 per annum (17%), or those who are currently students (16%).

### **Other Issues:**

- Air pollution vehicles: Māori (5%) or those in family households with preschool children (5%)
- Air pollution general: those who are retired (8%)
- Pollution general: European (3%) or those in family households with preschool children (5%)
- Pests plants: those aged between 50 and 59 years (5%)
- Transport congestion: those aged 65 years and older (4%) or those with a household income of between \$90,001 and \$150,000 per annum.

# **3.3.2 GEOGRAPHIC VARIATION**

When considered by territorial authority and by urban and rural location, respondents are more likely (than the regional average) to mention the following points in:

- Thames-Coromandel: marine water quality (6%), costs and charges of environmental management (5%), land mining (5%), coastal erosion (5%), effects on the coast (3%), fertiliser use on agricultural land (4%), marine fisheries (3%) or pests (3%)
- Hauraki: waste (7%), land mining (7%), environmental education (3%), or land reserves (3%)
- Hamilton: traffic congestion (5%), pollution generally (4%), or climate change (2%)
- Matamata-Piako: air smells (4%), industrial air pollution (4%), or industrial waste (2%)
- Waipā: recycling (9%), agricultural pollution (3%), or agricultural fencing off waterways (1%)
- South Waikato: air pollution for households (4%), or pests (3%)
- Otorohanga: don't know (46%), land deforestation (3%), environmental management laws (2%), industrial (2%), drought (2%), or land biodiversity (3%)
- Rotorua: agricultural effluent run off (11%), land use (8%), or land erosion (4%)
- Taupo: air pollution (9%), waterweed and algae (3%) or geothermal issues (2%).

No respondents from Waitomo or Waikato or an urban or rural setting are more likely (in terms of significance) to mention a particular environmental issue.

# 3.4 MOST IMPORTANT ENVIRONMENTAL ISSUE IN FIVE YEARS

Respondents were also asked what they thought would be the most important environmental issue facing the Waikato region in five years' time.

## 3.4.1 OVERALL RESULT AND COMPARISON WITH PREVIOUS YEARS

- Water pollution/quality: Since 2000, this issue is consistently cited as the most important environmental issue facing the Waikato region in five years' time. Respondents' mentions of water pollution is almost double the 2006 result with significant increases seen in the number of mentions of pollution/quality (33% in 2013 and only 12% in 2006). However, please note that this survey was conducted during the summer of 2013 when the Waikato region was declared a drought zone. This point needs to be considered when comparing the changes in water-related measures from 2006 to 2013.
- Air pollution: This is the second most frequently mentioned issue, but shows a decrease on the 2006 findings with air pollution dropping from 24 per cent in 2006 to 10 per cent in 2013. General pollution (4%) and climate change/global warming/ozone layer (5%) make up the majority of this issue however, mentions of specific sources of pollution (households 0.5%) and vehicles (1%) also occur.
- Rubbish and recycling: This issue is the third most frequently stated most important environmental issue in five years but has reduced in frequency from 15 per cent in 2006 to 9 per cent in 2013.

Please note: Multiple responses to this question were permitted. Consequently the table may total more than 100 per cent.

	2000	2003	2006	2013
	%	%	%	%
Water Pollution/Quality – Total	24	30	24	47
Water – pollution/quality	10	4	12	33
Water – availability and quantity for use	14	20	8	8
Water – over use	-	-	-	1
Agriculture – effluent disposal/run off	-	1	1	1
Agriculture – waste to waterways	-	-	-	1
Agriculture – fertiliser/nitrogen run off	-	1	1	
Agriculture – general	-	-	-	2
Waikato River – water/clean up the river	-	2	1	1
Lake Taupo – water pollution/clean up the lake	-	1	< 0.5	-
Marine environment	-	1	1	0.5
Air Pollution – Total	15	12	24	10
Climate change/global warming/ozone layer	7	4	8	5
Air pollution – general	8	8	16	4
Air pollution – vehicles	-	-	-	1
Air pollution – households	-	-	-	0.5

#### Table 3-5: Most Important Environmental Issue in Five Years' Time 2000 to 2013

	2000	2003	2006	2013
	%	%	%	%
Rubbish and Recycling – Total	21	11	15	9
Rubbish disposal	19	10	8	2
Recycling	-	-	3	1
Littering	-	< 0.5	2	2
Dumps/landfills	2	1	2	1
Waste – general	-	-	-	3
Other Issues	31	48	28	23
Transport – congestion/roading (previously	1	12	3	3
Transport)				
Pollution/general pollution – industrial	6	7	3	3
Drought	-	-	-	2
Erosion/deforestation/preservation of	3	1	1	2
natural environment				
Population increase	2	5	3	2
Town planning/urban sprawl/graffiti	1	3	3	2
Electricity/power generation/energy	-	1	2	1
supply/more needed				
Environmental education	<0.5	1	< 0.5	1
Environmental management –	-	-	-	1
environmental laws				
Land use/managing resources	1	2	2	1
Natural hazards including flooding	2	1	1	1
(previously Drainage/flooding)				
Sewage	2	1	1	1
Social issues – general				1
Coastal development, access, erosion	-	-	1	0.5
Mining of land	-	-	-	0.5
Public transport/cycleways	-	-	1	0.5
Weather	-	1	2	<0.5
Animal pests and disease (previously Pest control)	2	3	1	<0.5
Sprays/pesticides/poisons	3	1	1	-
Parks and reserves	-	< 0.5	1	-
Farm/agricultural pollution	-	-	1	-
Other	7	4	1	-
Nothing	1	1	4	0.5
Don't know	14	12	13	20
Base (respondents)	1873	1822	1000	1005

#### Table 3-5: Most Important Environmental Issue in Five Years' Time 2000 to 2013 cont.

# 3.4.2 DEMOGRAPHIC VARIATION

Some respondents are significantly more likely (than the regional average) to identify with specific environmental issues facing the Waikato region in the next five years. These are outlined below: Water Pollution/Quality

- Water pollution/quality: those educated to a tertiary level (36%)
- Water availability and quantity for use: Europeans (11%), those with trade certificate (13%) or those with a household income of between \$90,001 and \$150,000 per annum (12%)
- Waikato River: those aged between 18 and 19 years (6%).

#### **Air Pollution**

- Climate change/global warming/ozone layer: Māori (11%), those who are currently students (12%), those with a household income of \$30,000 or less per annum (8%), those who are currently unemployed (12%), or those who undertake home responsibilites (10%)
- Air pollution general: those who undertake home responsibilities (11%).

### Rubbish and Recycling

- Waste general: those who are educated to a secondary school level (6%), or those with a household income of between \$60,001 and \$90,000 per annum (5%)
- Waste littering: Māori (5%), those who are aged between 20 and 29 years (6%), or those who are working part time (5%).

### **Other Issues**

- Land use: those aged between 18 and 19 years (6%)
- Drought: Māori (4%) or those aged between 18 and 19 years (11%)
- Social issues/population increases: Māori (5%).

### 3.4.3 GEOGRAPHIC VARIATION

When considered by territorial authority and by urban and rural location, respondents are more likely (than the regional average) to mention the following points in:

- Thames-Coromandel: climate change/global warming/ozone layer (10%), land mining (5%), marine water quality (5%), coastal effects (5%), or marine fisheries (2%)
- Hauraki: waste (8%) or agricultural run off (4%)
- Waikato: pollution generally (7%), environmental education (4%), or in water pests (3%).
- Hamilton: transport congestion (7%) or littering (5%)
- Matamata-Piako: water availability and quantity for use (16%) agricultural run off (4%) or recycling (4%)
- Waipā: energy needed (4%), over-use of water (4%), drought (7%), or environmental management laws (2%)
- South Waikato: air pollution (11%), agriculture (6%), or the drought (7%).
- Otorohanga: don't know (37%), agricultural effluent run off (6%) or more energy needed (4%)
- Waitomo: water pollution/quality (50%), waste (9%), town planning/urban sprawl (3%), or pests (3%)
- Rotorua: air pollution (9%), air pollution from vehicles (6%), air pollution households (4%), plant pests (2%)
- Taupo: erosion/deforestation/preservation of the natural environment (6%) or sewage (3%).

No respondents from an urban or rural setting are more likely (than the regional average) to mention a particular environmental issue facing the Waikato region in the next five years.