

# **Environmental Awareness, Attitudes and Actions, 2006**

A survey of residents of the Waikato Region

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# Executive Summary

This summary contains the findings of 1,003 Computer Assisted Telephone Interviewing (CATI) surveys conducted with residents of the Waikato region as part of Environment Waikato's three yearly monitoring of public environmental awareness, attitudes and actions. Interviewing was conducted during September and October 2006 and distributed across the region to allow detailed reporting by territorial authority. At the completion of interviewing, data was weighted to reflect the population of the region. This summary contains top line findings at the regional level. Further detail can be found in the body of this report and in the District Summaries.

## 1 Environmental Issues

- 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 6.28. This represents a slight, but not significant drop, for the third consecutive period.
- **Water pollution**<sup>1</sup> continues to be the most frequently mentioned current environmental concern for the region's residents (43%). In total 61% of people said water pollution was the most and next most important environmental issue facing the region.
- Residents' concern about **rubbish and recycling** (13%) has increased significantly since 2003, as has concern about **air pollution** (9%). **General pollution** (4%) and **transport (congestion and roading)** (3%) are also frequently identified as current environmental concerns.
- Looking forward, in five years time **water pollution issues** are continue to be considered the most important environmental issue likely to affect the region (24%). **Rubbish disposal and recycling issues** (15%) now ranks third after **air pollution**, which has increase significantly since 2003 (16% up from 8% in 2003). The **ozone layer/global warming** is also frequently mentioned (8%). Concerns about **transport (congestion and roading)** have declined since 2003 (3%, down from 12% in 2003).

## 2 Perceptions of Changes Regarding Environmental Issues

- Waikato region residents mostly say that the **overall state of the local environment** had improved (39%, up significantly from 33% in 2003) or stayed the same (38%) over the last few years. Just over one in five (22%) perceive the local environment has recently deteriorated (little change since 2003, but up from 12% in 1998).
- The specific aspect of their local environment *both rural and urban respondents* thought had got better over the last few years was:
  - The availability of waste recycling services (49% *a little or much better*).
- Specific aspects of their local environment rural and urban residents thought had remained unchanged over the last few years were:
  - Water quality in local streams, rivers and lakes (42% *stayed the same*)
  - Pollution or waste produced by nearby businesses and industries (40%)
  - Pollution or waste produced by nearby farms (36%).
- While no aspects of the local environment were considered by the greatest proportion of rural and urban residents to have deteriorated over the last few years, rates of perceived deterioration are highest for:
  - Water quality in streams, rivers and lakes (32% of all respondents describing this as *a little or much worse*)
  - Pollution or waste produced by nearby businesses and industries (25% of all respondents giving a rating of *a little or much worse*).
- Among *rural respondents*, specific aspects of their local environment they feel have got better over the last few years include:

<sup>1</sup> Water pollution, water quality and supply, effluent disposal/runoff, Waikato River – clean up the river, fertiliser/nitrogen runoff, marine environment, Lake Taupo – water pollution, clean up the lake.

- Fencing off areas of native bush or wetland (50% *a little* or *much better* than a few years ago), with very few (6%) giving a rating of *a little* or *much worse*.
- Fencing off of streams, lakes and rivers (46%)
- Disposal of effluent according to the rules (40%).
- *Rural respondents* largely perceive that soil and land erosion in their local environment has remained relatively unchanged over the last few years (48% *stayed the same*). However, 27% of rural respondents gave a rating of *a little* or *much worse*).
- *Urban respondents* perceive that public transport availability in their local environment has got better over the last few years (47% *a little* or *much better*). In contrast, urban respondents perceive the following aspects of their local environment have remained relatively unchanged:
  - Natural amenities in local town or city (47% *stayed the same*)
  - Cyclist-friendly roading (45%).

### 3 Level of Concern on Environmental Issues

- Compared with 2000, levels of concern (*slightly concerned/very concerned*) with all environmental issues have increased significantly. This increase is most marked for the **loss of the natural character of the region's beaches through development** (total concerned up from 65% to 79%) and **the state of native bush and wetlands on private property** (total concerned up from 52% to 62%). The share of surveyed residents expressing concern with the **spread of cities/towns across farmland** has increased from 62% in 2000 to 69% in 2006.
- Providing further evidence of the importance of water pollution as a current and future environmental issue for the Waikato region (see Section 3), respondents' express greatest concern on water pollution issues. Levels of concern are greatest for water pollution **from industry** (89% either *slightly* or *very concerned*) and water pollution from **towns and cities** (87%). Three-quarters of residents (78%) express concern with water pollution **from farms**, with 46% being very concerned.
- Four in five residents (79%) express concern with the **loss of the natural character of beaches through development**.
- Of the seven environmental aspects questioned on, residents have mixed opinions and levels of concern with the **construction of rock and concrete seawalls to protect property from long term coastal erosion** - 54% *slightly concerned/very concerned*, while 40% are *not very concerned* or *not concerned at all*.

### 4 Knowledge of Environmental Issues

- Results suggest that some residents have a lack of understanding or hold misperceptions of the causes of some environmental problems in the region.
- Agreement that **water pollution in the region's rivers and streams comes mainly from farmland** has increased significantly since 2000 (total agree up from 35% to 55%). This shows an increased understanding of the main source of water pollution in the region.
- However, residents continue to hold a misperception about the source of oil in our lakes, rivers and harbours, with 66% of respondents agreeing with the statement **most oil in our lakes, rivers and harbours gets there from spillage from industry**. Levels of agreement with this statement have remained relatively stable since 2000. In fact, most oil in waterways gets there from non-point sources, for example stormwater.
- Again there appears to be a misperception of the sources of water pollution, with levels of agreement/disagreement particularly mixed for **the discharge of treated human sewage being a major cause of pollution in the region's waterways**, 48% agreeing with this statement, and 39% disagreeing. However, for Maori residents discharges of treated human sewage into waterways is culturally inappropriate and this is reflected in the demographic comparisons

with 62% of Maori and 55% of those with Maori ancestry agreeing with this statement.

- There also appears to be a lack of knowledge about the main source of air pollution in the region, with 58% disagreeing that **most air pollution comes from people's home fires**.

## 5 Air Quality

- Residents were divided on the issue of activities damaging air quality in the Waikato region, with half (54%) saying there were none (compared with 52% in 2003), while 40% believed there were activities threatening air quality (compared with 45% three years ago).
- Of those that say there were activities that damage air quality; as in 2000 and 2003, the top two activities identified as damaging to air quality in the region were **vehicle emissions** (52%) and **industrial emissions** (37%).
- **Industrial burning** is now the third most frequently cited activity perceived to be damaging air quality in the Waikato region (12%), this proportion having increased from 6% in 2003. Other air quality pollutants frequently identified by residents include **domestic fires for home heating** (9%) and **burning rubbish** (8%).
- Of note is the significant decline in the proportion of residents citing **sprays and spray drift/chemicals** (6%) as an activity affecting air quality; mention of this pollutant down from both 2003 (15%) and 2000 (17%).

## 6 Natural Hazards

- Awareness of natural hazards has increased since 2003, with more residents able to identify three or more hazards (18%, compared with 10% in 2003), and fewer residents unable to identify any hazards (24%, compared with 32% in 2003).
- Those natural hazards identified most frequently in 2006 remain the same as in previous years, namely **earthquakes** (37%), **flooding** (31%) and **high winds/storms/cyclones** (24%).

## 7 Energy Generation and the Environment

- Respondents' views were mixed on whether they would or would not object to a wind turbine in clear view of their property, with 51% of residents indicating that they would not object to a wind turbine being visible from their window while 40% would object.

## 8 Environmental Regulations and Controls

- Waikato region's residents appear to support environmental regulation, with almost all agreeing **council should enforce its rules and laws to make sure the environment is well looked after** (96% agree – up from 88% in 2003).
- Additionally, a large proportion of surveyed residents believed that **government restrictions on the use of private property are necessary so the environment will not be harmed** (76% agree – up slightly from 73% in 2003).
- Similarly, more than half of surveyed residents continue to disagree that **landowners should be allowed to do what they like on their own land** (53% disagreeing – up slightly from 50% in 2003).
- Residents desire regulations that minimise the impact of natural hazards, 88% agreeing that **council should tighten its provisions for the construction of homes and buildings in areas at risk from flooding and erosion**.
- The majority of residents are keen for regulations that minimise air pollution, three in five residents (60%) disagreeing that **people should be allowed to burn garden waste in their backyard**.
- Residents continue to be clearly opposed to **livestock being allowed to enter streams and waterways on farms**, 75% disagreeing with the statement (compared with 79% in 2003).

- Three in five residents (62%) agree that **there is enough protection given to local significant natural sites**. Levels of agreement with this aspect of environmental regulation have increased significantly since 2003 (49%).
- There continues to be concern among residents regarding urban growth with two-thirds (66% - up from 64% in 2003) agreeing that **urban sprawl and subdivisions threaten the natural environment**.
- However, with respect to current urban development, over half of respondents (57%) agree that new **developments and subdivisions are sustainably designed**.

## 9 Economy, Business and the Environment

- Waikato region residents appear to be passionate about their environment; with a high proportion (83%) disagreeing that **it is okay to sacrifice environmental quality for economic growth**. This desire to maintain environmental quality has increased significantly since 2003 (78%).
- Surveyed residents continue to believe that environmental and economic goals can be satisfied concurrently, with a clear majority (93%) agreeing that **environmental protection and economic development can go hand in hand**, and furthermore that **a healthy environment is necessary for a healthy economy** (91% agree) (both figures are similar to those reported in 2003).
- There is widespread disagreement (94%) that **the most important objective of any business should be to maximize profit, even if it means damaging the environment** and almost all respondents (97%) agree that **businesses should be obliged to treat the environment well**. At the same time, however, a large proportion (53%) agrees that **businesses usually find it too expensive to be environmentally friendly**.
- In contrast to residents' perspectives on businesses' role in protecting the environment, when it came to having to make a trade-off between letting the Waikato farming economy decline in order to achieve a better environment, support dropped for protecting the environment. Just over half of residents (56%) disagreed that, **it is acceptable to let the Waikato farming economy decline in order to achieve a better environment**. In contrast, a third of respondents agreed with this statement.
- The importance residents place on minimising water pollution in the region (see Section 3) is further illustrated by the fact that nine out of ten respondents (90%) agree that the **water quality in streams and rivers should be protected even if it means businesses have to bear the expense of meeting environmental standards**. Nine out of ten respondents (90%) disagree that **farming agricultural land at maximum productivity is acceptable even if it results in polluted waterways**.
- The scale examining the balance between environmental and economic attitudes found that people place greater emphasis on the environment than the economy. The scores can range between three (pro-economy) and 15 (pro-environment). In 2006, the mean was 13.58 indicating a reasonably constant level of support for the environment over the economy compared with previous measures.

## 10 Personal Environmental Action

- As in 2003, actions relating to the disposal of household waste, including recycling - plastic, paper, glass, tins/cans (49%), disposing of rubbish properly (17%) and composting (9%), are most commonly mentioned actions undertaken to protect the environment. Planting trees (13%) is also frequently mentioned.
- Results for 2006 continue the downward trend in residents' involvement in public actions/meetings, one out of six surveyed residents (16%) having some form of involvement in the last 12 months (compared with 22% in 2003). Actions most commonly undertaken included attending meetings/public hearings (42% of those taking some form of action) and joining/belonging



to/starting an action group (25%). The proportion signing petitions (6%) has declined from 25% in 2003. In 2006, a significantly larger proportion considered that their actions were very effective (up from 13% in 2003 to 31% in 2006).

- For the first time since monitoring began, a greater proportion of residents now agreed that the public have enough say in the way the environment is managed (48% - up from 40% in 2003) than disagreed (46%). In particular, residents were significantly more likely to strongly agree that the public have enough say (10%) than they were in 2003 (4%).

## 11 Conclusions

A number of key findings can be highlighted from this year's results.

The results of the 2006 survey indicate the continuing development of a more certain set of community attitudes, awareness and actions for the environment in the Waikato region. The opinions of community members throughout the region have strengthened with fewer people not having an opinion or saying that it 'depends'.

People's overall satisfaction with their local environment has continued to decrease from a score of 6.5 in 1998 to 6.28 in 2006.

Waikato residents view the overall state of the environment as getting better or staying the same. However since the 1998 measure the proportion saying it is improving has fallen (down from 55% to 39%), and there is a gradual increase in the group saying it has got worse (up from 12 % to 22%).

As in 2003, the key area of environmental concern for residents is **water pollution**. While significantly fewer residents stated that water quality in local streams, rivers and lakes had become worse over recent years than in 2003, water pollution is, by far, the most frequently cited environmental issue facing the Waikato region, both now and in the future. Concern is particularly high with respect to water pollution from industry, and from towns and cities. While the increase in agreement that water pollution in the region's rivers and streams comes mainly from farmland shows a growing understanding of the main source of water pollution in the region, almost half of respondents agree that discharges of treated human sewage are a major cause of pollution of waterways (whereas the major source of pollution in the Waikato region's waterways is from agricultural land). This suggests that more work needs to be done to educate the public as to source of water pollution.

Results for 2006 show the growing importance of **air pollution** as an environmental issue affecting the Waikato region, both now and particularly in the next five years (the proportion of respondents identifying air pollution as the most important environmental issue affecting the region having doubled in the last three years). While this issue has clearly become more important to residents over the last three years, survey results suggest a lack of understanding about the main source of air pollution in the region. Only a little over a third agree that most air pollution in the region comes from people's home fires while vehicle and industry emissions are significantly more likely to be identified as sources of air pollution in the region. This suggests that, if air pollution is to be successfully reduced, more work needs to be done to raise awareness of the main cause of the problem.

Compared with 2000, **levels of concern** with all environmental issues on which respondents were specifically questioned have increased significantly. This increase is most marked for the loss of the natural character of the region's beaches through development, and the state of bush and wetlands on private property.

Support for **environmental regulation** continues to be strong, with almost all respondents now agreeing council should enforce its rules and laws to make sure the environment is well looked after, and an increasing proportion acknowledging that government restrictions on the use of private property are necessary to protect the environment. However, 37 per cent of residents are less convinced of the role of government when it impinges on perceived property rights. While increasingly satisfied with the level of protection of significant natural sites, respondents continue to agree that urban sprawl and subdivisions threaten the natural environment. This suggests a potentially greater role for council in regulating for urban development to ensure the natural environment is protected.

The scale examining the **balance between environmental and economic attitudes** found that people place greater emphasis on the environment than the economy. Waikato residents strongly support the principles that businesses become more environmentally responsible. A clear majority agree that businesses should bear the costs for meeting environmental standards for waterways and that maximising farm productivity should not result in polluted waterways. These results indicate a general support for making changes to agricultural production to make it more environmentally sustainable. However, at a practical level just over half of the region's residents are not supportive of a decline in the farming economy to achieve better environmental outcomes.

People are taking a **range of actions** and choices to contribute to better environmental outcomes with recycling paper, glass, tins and plastics still the most common activities. However, despite this heightened concern with environmental issues, residents' **active involvement in protecting the environment** (such as attending meetings and official hearings) continues to decline. Although only 16 per cent involved themselves in public action in some way, 48 per cent of all respondents agreed that the public have enough say in the way the environment is managed, compared with 46 per cent who disagreed. This is the first time in the four surveys that more people agreed that they had enough say than disagreed. Taken together with the results gauging opinions on environmental regulation, this suggests the public may be more aware and more confident in government's role in environmental management, rather than suggesting less willingness to be involved.

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# 1 Introduction and Objective

Environment Waikato has responsibility for sustainable resource management in the Waikato region. Understanding environmental perceptions and awareness of residents is an essential aspect of the Council's work (as specified by the Resource Management Act 1991), and provides key input into the development, implementation and evaluation of Council-initiated resource management strategies.

To this end, the Environmental Awareness, Attitudes and Action Survey was first implemented by Environment Waikato in June 1998 to benchmark environmental perceptions within the region. This survey was repeated in 2000 and 2003, and most recently again in September/October 2006.

The research aims to provide information to:

- Track public views, attitudes and priorities about environmental issues.
- Raise awareness of the impact and effects of people on natural resources.
- Anticipate public response to environmental policies and programmes.
- Evaluate current policies and programmes.
- Provide information useful to agencies such as District and City Councils.

Information from the survey:

- Provides indicators of people's environmental awareness, attitudes and actions and how these have changed over time (through comparison with 1998, 2000 and 2003 results).
- Assists in the evaluation of the effectiveness of policy, education and communications projects.
- Provides indicators of the potential for and the barriers to undertaking environmentally beneficial behaviours for programme design and implementation.

This report contains the findings of the 2006 survey undertaken by Gravitass Research and Strategy Limited. Results of the survey are widely disseminated through the publication of this survey report and incorporation of survey results with other environmental indicators on the Environment Waikato website ([www.ew.govt.nz](http://www.ew.govt.nz)).

## 2 Methodology, Sample Structure and Reporting

### 2.1 Methodology

#### 2.1.1 Overview

This survey was undertaken using Computer Assisted Telephone Interviewing (CATI) by the Gravitass Research and Strategy Survey Centre. A total of 1,003 interviews were completed with residents of the Waikato region over the period September 13 to October 29, 2006. The sample was derived from Telecom New Zealand's database of live residential telephone numbers. Interviews were quota'd by gender, age, ethnicity and location (territorial authority and rural/urban), with data re-weighted at the completion of surveying to ensure representative results.

#### 2.1.2 Questionnaire Design

The questionnaire was designed by Environment Waikato, using previous surveys as the base. Care was taken to retain the wording of previously used questions so as not to compromise the ability of the survey to monitor responses over time.

Upon receiving the questionnaire, Gravitas recommended the implementation of some minor wording changes to enhance ease of understanding for respondents.

A pilot of n=13 interviews was undertaken prior to live interviewing commencing. The aim of the pilot was to confirm that the questionnaire and interview process was relevant and safe for respondents, but would also yield meaningful results that could be used with confidence by Environment Waikato. Minor wording changes to some questions were made as a result of the pilot. The data from the pilot interviews have been excluded from the results presented here.

### **2.1.3 Sampling**

The sample was purchased from Telecom New Zealand's database of live residential telephone numbers. The sample was purchased by territorial authority in proportion to the number of interviews required in each area. Once purchased, numbers were chosen at random for the purposes of surveying.

### **2.1.4 Survey Method**

Surveying was undertaken using Computer Assisted Telephone Interviewing (CATI) from the Gravitas Research and Strategy Survey Centre in Auckland. CATI has a number of advantages over paper based interviewing including:

- Computer control of the questionnaire means that the questionnaire design may contain complex skips and jumps without placing any additional onus on the interviewer, thereby reducing time and error.
- Computer control of the telephone numbers sampled means that the interviewer is relieved of the task of organising callbacks or repeating calls to numbers which had no answer. Each number is called back ten times before being replaced.
- All call statistics are collected on an on-going basis by the computer so that response rates and other statistics can be calculated immediately and accurately.
- The central interviewing location means that all interviewing staff can be briefed face-to-face and any interviewing problems or difficulties responded to as they take place.

Interviewing was undertaken over the period September 13 to October 29 2006. Interviewing hours were 5:00pm to 5:30pm and 6:30pm to 9:00pm<sup>2</sup>, Monday to Friday and 4:00pm to 5.30 pm and 6.30 to 8:00pm on Sundays. Where requested by the respondent, a small number of interviews were conducted during the day and between 5.30 and 6.30 pm.

The average interview length was 20 minutes.

### **2.1.5 Sample Structure**

A total of 1003 interviews were completed. The sample was quota'd to over-sample smaller Territorial Authorities (TAs) and rural areas and under-sample larger TAs. This was done to ensure robust sample sizes within each TA to confidently report results within at least  $\pm 13\%$  at the 95% confidence level<sup>3</sup>. Quotas were also applied by gender, age and ethnicity.

Full details of the final sample structure are contained in the following Section 2.2. Further details relating to statistical confidence are in Section 2.3.

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<sup>2</sup> Interviewing was not undertaken from 5:30pm to 6:30pm on weekdays at the request of Environment Waikato as a means of reducing resident inconvenience over this frequently busy household time.

<sup>3</sup> With the exception of Rotorua ( $\pm 15.5\%$ )

## 2.1.6 Response

The final response rate of 25% was achieved based on interviewing undertaken prior to targeting to achieve quotas<sup>4</sup>. Despite the inclusion of an incentive to take part in the survey<sup>5</sup> this response rate is lower than has been achieved in previous years (46% in 2003). This is attributed to an industry-wide trend towards declining response rates to telephone surveys.

As in 2003, reasons given for refusing to take part in the survey included a lack of time to participate (30% of those refusing) and a lack of interest in the topic (10%). However, similar to 2003, a notable proportion of respondents who refused to participate (24%) did so before the interviewer had the opportunity to introduce the topic of the survey (“contact” refusals). See *the Appendix for the refusal analysis*.

## 2.2 Sample Structure

The tables below show the sample structure by key demographics, and compare these to the structure of the population of the Waikato region<sup>6</sup>. The sample was quota'd by gender, age and ethnicity to ensure it was representative of the distribution of the Waikato region population on these characteristics. The sample was weighted by territorial authority and the rural/urban split to ensure that the distribution of the total sample mirrored the geographic structure of the region's population.

**Table 2-1: Sample Structure by Territorial Authority**

	Number of Interviews (n)			% of Sample	Weighted % of Sample	% of Regional Popn
	Urban	Rural	Total			
Franklin	29	30	59	5.9	4.2	4.2
Thames-Coromandel	38	30	68	6.8	7.4	7.4
Hauraki	28	32	60	6.0	4.4	4.4
Waikato	71	30	101	10.1	11.1	11.1
Hamilton	238	0	238	23.8	33.7	33.7
Matamata-Piako	37	33	70	7.0	7.7	7.7
Waipa	66	30	96	9.6	10.9	10.9
South Waikato	30	34	64	6.4	5.8	5.8
Otorohanga	29	31	60	6.0	2.4	2.4
Waitomo	30	36	66	6.6	2.5	2.5
Rotorua	0	44	44	4.4	0.9	0.9
Taupo	56	18	74	7.4	9.0	9.0
<b>Total</b>	<b>652</b>	<b>348</b>	<b>1000</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

### 2.2.1 Weighting

Territorial Authorities that were “oversampled” relative to their share of the region's population to ensure a sufficient sample size for territorial authority-level analysis were “weighted downward” to their actual share of the region's population. For example, 4.4% of all interviews were conducted in Rotorua. However, the Rotorua population represents only 0.9% of the region's population. Consequently, results for Rotorua have been weighted back to 0.9% of the total sample. In contrast, Territorial Authorities that were “undersampled” relative to their share of the region's population were “weighted upward” to reflect their actual share of the population. For example, 23.8% of all interviews were conducted in Hamilton city. However, the Hamilton population actually represents 33.7% of the region's population, so results for Hamilton have been weighted up to now comprise 33.7%

<sup>4</sup> Targeting has the impact of reducing response rates through reducing the ratio of interviews completed to refusals. Calculating a true response rate when targeting is difficult as it is impossible to know how many respondents who refuse would not have been eligible to respond anyway.

<sup>5</sup> Incentive was a night for two to a destination of the respondent's choice within the Waikato Region.

<sup>6</sup> Census 2001

of the total sample. The sample was also weighted by age, gender and ethnicity to adjust for minor differences between quotas and actual population shares.

**Table 2-2: Sample Structure by Rural/Urban**

	Number of Interviews (n)	% of Sample	Weighted % of Sample	% of Regional Popn
Rural	348	34.8	24.0	24.0
Urban	652	65.2	76.0	76.0
Total	1000	100.0	100.0	100.0

**Table 2-3: Sample Structure by Gender**

	Number of Interviews (n)	% of Sample	Weighted % of Sample	% of Regional Popn
Male	460	46.0	48.3	48.3
Female	540	54.0	51.7	51.7
Total	1000	100.0	100.0	100.0

**Table 2-4: Sample Structure by Ethnicity**

	Number of Interviews (n)	% of Sample	Weighted % of Sample	% of Regional Popn*
European	834	83.4	78.6	83.6
Maori	128	12.8	15.8	16.8
Asian/Indian	23	2.3	3.1	3.3
Pacific Peoples	13	1.3	2.1	2.2
Other	2	0.2	0.3	0.4
Total	1000	100.0	100.0	106.3

\* Note: Census 2001 allows respondents to choose more than one ethnic origin hence table totals to more than 100%

**Table 2-5: Sample Structure by Maori Ancestry**

	Number of Interviews (n)	% of Sample	Weighted % of Sample	% of Regional Popn*
No Maori ancestry	793	79.3	77.2	77.2
Yes, Maori ancestry	202	20.2	22.0	22.8
Refused	5	5.0	0.8	NA
Total	1000	100.0	100.0	100.00

**Table 2-6: Sample Structure by Age**

	Number of Interviews (n)	% of Sample	Weighted % of Sample	% of Regional Popn
18-19	27	2.7	4.2	4.2
20-29	147	14.7	17.6	17.6
30-39	219	21.9	20.7	20.7
40-49	214	21.4	19.9	19.9
50-59	162	16.2	15.5	15.5
60+	231	23.1	22.2	22.2
Total	1000	100.0	100.0	100.0



**Table 2-7: Sample Structure by Household Income**

	Number of Interviews (n)	% of Sample	Weighted % of Sample	% of Regional Popn
Less than \$30,000	197	19.7	19.2	NA*
\$30 - 60,000	369	36.9	36.3	NA
\$60 - 90,000	214	21.4	22.1	NA
More than \$90,000	176	17.6	17.4	NA
Refused/don't know	44	4.4	5.0	NA
<b>Total</b>	<b>1000</b>	<b>100.0</b>	<b>100.0</b>	<b>NA</b>

\*Note: 2001 Census figures for household income use different break-downs/categories to those used in the survey. Consequently, it is not possible to provide comparative regional data.

**Table 2-8: Sample Structure by Occupation**

	Number of Interviews (n)	% of Sample	Weighted% of Sample	% of Regional Popn
Professional/Managerial	153	15.3	16.5	NA
Farmer/Forestry worker	118	11.8	7.5	NA
Clerical/Sales	115	11.5	12.1	NA
Technical/Trade	111	11.1	12.2	NA
Education/Health	94	9.4	9.8	NA
Skilled	40	4.0	4.3	NA
Unskilled	20	2.0	2.0	NA
Semi-skilled	19	1.9	2.0	NA
Self employed	17	1.7	1.3	NA
Government	16	1.6	1.5	NA
Not in paid employment <sup>7</sup>	138	13.8	13.8	NA
Retired	156	15.6	15.6	NA
Other/Don't know/Refused	3	< 0.5	1.4	NA
<b>Total</b>	<b>100</b>	<b>100.0</b>	<b>100.0</b>	<b>NA</b>

\*Note: 2001 Census classification of occupations uses slightly different categories to those used in the survey. Consequently, it is not possible to provide comparative regional data.

## 2.3 Reporting

This report presents results at four levels:

- i) Overall results
- ii) Comparisons with previous years
- iii) Demographic variations in results
- iv) Geographic variations in results

Overall results are reported on a weighted base of 1000 (total interviews 1003). The margin of error at the 95% confidence interval is  $\pm 3.1\%$  (See Table 2.8 below).

Comparisons of results with previous years are shown where the consistency in asking the question allows comparisons to be made with confidence. Results are shown in tabular and graphical form. Any results stated to be significantly different from previous years have been tested and found to be statistically significantly different at the 95% confidence level.

All results have also been analysed to highlight differences in responses by different demographic groups:

<sup>7</sup> Note: This includes students (4.0%), unemployed/beneficiaries (4.5%), and those involved in home responsibilities only (not in paid employment and not receiving government financial support) (5.3%)

- Gender
- Age
- Ethnic group
- Maori ethnicity
- Maori ancestry
- Annual household income
- Highest academic qualification
- Employment situation
- Farming/non farming rural occupation.

Again, any results stated to be significantly different from previous years have been tested and found to be statistically significantly different at the 95% confidence level.

Finally, results have been analysed by Territorial Authority, by Hamilton city/other districts and by the rural/urban split. As above, any results stated to be significantly different from previous years have been tested and found to be statistically significantly different at the 95% confidence level. Table 2.8 (below), shows confidence levels (at the 95% level) for a range of sub-sample groups commonly referred to in the analysis.

Geographical analysis has also been illustrated through the use of stacked bar charts. On many of these charts an *Index* has also been included which gives a summary score to the range of responses given by the total sample and the sub-sample groups. This index allows for quick and easy comparison of responses between groups and has been calculated so that, if all respondents gave the extreme positive score (e.g. *a lot better* or *strongly agree*), the Index score would be 100. Conversely if all respondents gave the extreme negative score (e.g. *a lot worse* or *strongly disagree*), the Index score would be 0.

**Table 2-9: Main Sub-Sample Sizes and Associated Confidence Levels**

<b>Sub sample description</b>	<b>Sub sample size</b>	<b>Confidence Level at 95% (± %)</b>
Total sample	1000	3.1
Rural	348	5.3
Urban	652	3.8
Franklin	59	12.8
Thames-Coromandel	68	11.9
Hauraki	60	12.7
Waikato	101	9.8
Hamilton	238	6.4
Matamata-Piako	70	11.7
Waipa	96	10.0
South Waikato	64	12.2
Otorohanga	60	12.7
Waitomo	66	12.1
Rotorua	44	14.8
Taupo	74	11.4

## 3 Environmental Issues

This section gives an overall view of issues considered important by residents in relation to the environment in the Waikato region. It begins by looking at residents' overall satisfaction with the local environment and then considers key environmental issues facing the Waikato region currently and into 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 **6.28**. This represents a slight drop for the third consecutive period.
- **Water pollution** (including water pollution generally, water quality and supply, and pollution issues in relation to the Waikato River) continues to be the most frequently mentioned current environmental concern for the region's residents. Residents' concern about **rubbish and recycling** has increased significantly since 2003, as has concern about **air pollution**. **Transport (congestion/roading)**, **general pollution** issues and **erosion/deforestation/preservation** of the natural environment are also frequently identified as current environmental concerns.
- As in 2003, **water pollution issues** (water pollution generally and water quality and supply) are considered the most important environmental issue likely to affect the region in five years time. Mention of **air pollution** as the region's main future concern has doubled since 2003 while, in contrast, mention of **rubbish disposal issues** and **transport (congestion/roading)** have declined since 2003. The **ozone layer/global warming** was also frequently mentioned.

### 3.1 Satisfaction with the Local Environment in General

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

#### 3.1.1 Overall Result

The overall mean score is 6.28, with the greatest proportion of respondents scoring their local environment a five (17%), six (21%), seven (31%) or an eight (16%) on the one to ten scale. Eleven per cent of residents gave their local environment a rating of less than five.

#### 3.1.2 Comparison with Previous Years

This result shows a continuation in the downward trend in satisfaction with local environment scores – from 6.50 in 1998 to 6.28 in 2006. The decline from 2003 to 2006 (from 6.32 to 6.28) is a result of slight changes in the proportion of residents giving 'one', 'five' and 'seven' and 'eight' ratings. Aside from these, the distribution of ratings between 2003 and 2006 is almost identical.

**Table 3-1: Distribution of Scores for Satisfaction with Local Environment - 1998, 2000, 2003, 2006**

	1998 %	2000 %	2003 %	2006 %	Change 98-06	Change 03-06
One-completely unsatisfactory	<0.5	1	1	2	+2	+1
Two	<0.5	1	1	1	+1	-
Three	2	2	2	2	-	-
Four	5	6	6	6	+1	-
Five	17	16	19	17	-	-2
Six	20	22	21	21	+1	-
Seven	31	30	29	31	-	+2
Eight	19	17	17	16	-3	-1
Nine	5	3	3	3	-2	-
Ten – perfect in every way	1	1	1	1	-	0
<b>Mean</b>	<b>6.50</b>	<b>6.42</b>	<b>6.32</b>	<b>6.28</b>	<b>-0.22</b>	<b>-0.04</b>
Unsure/don't know	<0.5	1	<0.5	0	-	-
<i>Base (respondents)</i>	<i>1037</i>	<i>1873</i>	<i>1822</i>	<i>1000</i>		

### 3.1.3 Demographic Comparisons

**Highest mean scores** for satisfaction with the local environment were reported among those:

- who are retired (6.85)/aged 60 years or over (6.61)
- who are involved in farming occupations (6.78)
- with an annual household income of more than \$150,000 (6.64)
- of New Zealand European ethnicity (6.38).

In contrast, **lowest mean scores** for the local environment were reported among those:

- with an annual household income of \$60,001 to \$90,000 (6.00)
- of Maori (5.98) or Pacific Island (4.59) ethnicity
- involved in home responsibilities only (not in paid employment and not receiving government financial support) (5.68)
- aged 18 to 19 years (5.26).

### 3.1.4 Geographic Variation

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

- Mean scores given by residents were highest in Waipa (6.71), Otorohanga (6.68), and Matamata-Piako (6.66)
- Mean scores were lowest in Hamilton (6.12) and Franklin (5.99)
- Rural residents (6.45) rate their local environment more positively than urban residents (6.27).

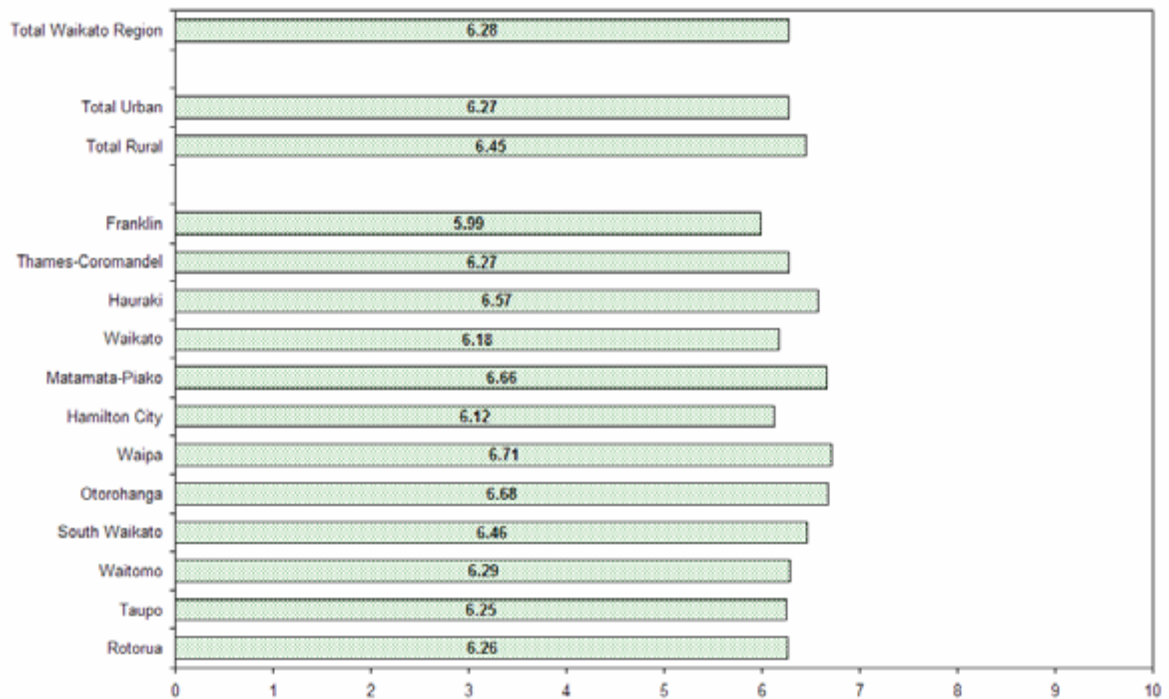


Figure 3-1: Mean Rating of Satisfaction with Local Environment by Urban/Rural and Territorial Authority

### 3.1.5 Environmental Satisfaction Index (ESI)

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

- *Not Satisfied* (respondent gave a rating of 1-4 out of 10)
- *Satisfied* (respondent gave a rating of 5-7 out of 10)
- *Very Satisfied* (respondent gave a rating of 8-10 out of 10).

The majority of responses (69%) were classified as *satisfied*. A further one in five (20%) translated as *very satisfied* while the remainder of responses (11%) were recorded as *not satisfied*. As Table 3.2 below shows, while the Index has remained relatively stable since 1998, the proportion of residents *very satisfied* with their local environment does show evidence of a downward trend over time, having fallen from 25% in 1998 to 20% in 2006.

Table 3-2: Environmental Satisfaction Index, 1998, 2000, 2003, 2006

	1998	2000	2003	2006	Change	Change
	%	%	%	%	98-06	03-06
Very satisfied	25	22	21	20	-5	-1
Satisfied	67	69	70	69	+2	0
Not satisfied	8	9	9	11	+3	+1
Base (respondents)	1037	1873	1822	1000		

Those significantly more likely (than the regional average) to be very satisfied with their local environment overall include those:

- of Asian/Indian ethnicity (35%)
- working in farming occupations (33%)
- who are retired (32%)/aged 60 years or over (28%).

Those significantly more likely to be not satisfied include those:

- aged 18 to 19 years (29%)
- with an annual household income of \$60,001 to \$90,000 (16%)
- with a secondary school qualification (14%).

There are no significant differences in the likelihood of being very satisfied or not satisfied by territorial authority or urban/rural location.

## 3.2 Most Important Environmental Issue Facing the Waikato Region

Residents were asked what they thought was the *single most important environmental issue facing the Waikato region today*.

### 3.2.1 Overall Result and Comparison with Previous Years

**Water pollution** issues (43%) continue to be the most frequently mentioned environmental concern for the Waikato region's residents. While the proportions of residents citing water pollution specifically (18%) and water pollution issues in relation to the Waikato River (3%) has declined significantly since 2003 (down from 26% and 8% respectively), the proportion of residents reporting concerns with water quality and supply has increased significantly – from 3% in 2003 to 13% in 2006.

Residents' concern about **rubbish and recycling** issues in the Waikato region has increased significantly over the last three years with 13% of respondents citing issues in relation to this aspect of the environment, compared with 8% in 2003. However, both these figures are significantly lower than in 1998 (32%) and 2000 (28%). Rubbish disposal (7%) and recycling (3%) in particular are frequently mentioned.

Results for 2006 show the resurgence of **air pollution** as an environmental issue of concern for some Waikato region residents, up from 3% in 2003 to 9% in 2006, while mention of **animal pests and disease** as the most important environmental issue for the region has declined significantly since 2003 (down from 6% to 1%). **Transport (congestion/roading)** (3%), **general pollution** issues (4%) and **erosion/deforestation/ preservation of the natural environment** (2%) are also frequently identified as issues of concern. One out of ten respondents continues to be unable to identify the most important environmental issues facing the region.

Detailed responses are shown below in Table 3.3.

**Table 3-3: Single Most Important Environmental Issue Facing Waikato Region**

	1998 %	2000 %	2003 %	2006 %
<b>Water Pollution - Total</b>	<b>33</b>	<b>39</b>	<b>45</b>	<b>43</b>
Water pollution	25	30	26	18
Water quality and supply	8	9	3	13
Effluent disposal/run-off	-	-	5	5
Waikato River – water, clean up the river	-	-	8	3
Fertiliser/nitrogen run-off	-	-	1	2
Marine environment	-	-	1	1
Lake Taupo – water pollution, clean up the lake	-	-	1	1
<b>Rubbish Disposal and Recycling - Total</b>	<b>32</b>	<b>26</b>	<b>8</b>	<b>13</b>
Rubbish disposal	17	19	5	7
Recycling	7	3	<0.5	3
Littering	3	2	1	2
Dumps/landfills	5	2	1	1
<b>Other Issues</b>				
Air pollution	10	4	3	9
Pollution/general pollution - industrial	5	6	4	4
Transport – congestion/roading ( <i>previously Transport</i> )	6	1	5	3
Sprays/pesticides/poisons	4	3	3	2
Erosion/deforestation/preserve natural environment	-	2	1	2
Electricity/power generation/energy supply	-	-	< 0.5	2
Natural hazards, including flooding ( <i>previously Drainage/flooding</i> )	2	2	2	2
Town planning/urban sprawl/graffiti	-	1	2	2
Animal pests and disease ( <i>previously Pest control</i> )	5	3	6	1
Managing land use/managing resources	-	1	2	1
Farm/agricultural pollution	-	-	-	1
Public transport/cycleways	-	-	-	1
Ozone layer/global warming	-	1	1	1
Coastal development, access, erosion	-	-	-	1
Environment Waikato administrative issues	-	1	1	1
Sewage	-	1	1	1
Plant pests ( <i>previously Noxious weeds</i> )	3	3	2	1
Population increase	-	*	2	< 0.5
Native birds/trees	-	1	1	< 0.5
Environmental education	2	-	1	< 0.5
General concern	-	1	1	< 0.5
Genetic Engineering	-	-	1	-
The Fart Tax	-	-	1	-
Water levels	-	-	1	-
Gypsy Moth spraying	-	-	3	-
Other	17	3	3	1
Nothing/everything is fine	-	1	2	3
Don't know/no reply	8	9	12	10
<i>Base (respondents)</i>	1037	1873	1822	1000

*Note: Multiple responses to this question were permitted. Consequently the table may total more than 100%*

Other issues mentioned this year by less than 1% of residents are:

- Parks and reserves, Native bush/plants, Fencing off waterways/bush, Smells, Weather/climate change, Noise, and Too many motorboats, jet skis etc. on waterways.

## 3.2.2 Demographic Comparisons

Some respondents were significantly **more likely** to identify certain environmental issues as most important facing the Waikato region. These were for:

### *Water Pollution*

- *water quality and supply* - tertiary qualified residents (18%) and those with an annual household income \$90,001 to \$150,000 (20%) or more than \$150,001 (25%).
- *effluent disposal/run-off* - those aged 30 to 39 years (7%) or males (6%).
- *water pollution issues in relation to the Waikato River* - Maori (5%), those aged 40 to 49 years (5%) or tertiary qualified residents (4%).
- *fertiliser/nitrogen run-off* - those with household responsibilities (7%), an annual income of more than \$150,000 (6%) or those in farming occupations (5%).
- *marine environment* - those with an annual household income of more than \$150,000 (5%).
- *Lake Taupo – water pollution, clean up the lake* - those aged 60 years and older (2%).

### *Waste Disposal*

- *rubbish disposal* - those with an annual household income of \$90,001 to \$150,000 (12%) or aged 20 to 29 years (11%).
- *recycling* - those with an annual household income of \$90,001 to \$150,000 (7%) or females (5%).
- *littering* - those with secondary school qualifications (4%) or with annual household incomes of \$30,001 to \$60,000 (4%).
- *dumps/landfills* - those on annual household incomes of \$60,001 to \$90,000 (3%).

### *Other Issues*

- *air pollution* - aged 20 to 29 years (13%), females (11%) or those with an annual household income of \$30,001 to \$60,000 (11%).
- *general pollution issues* - those with no secondary school qualifications (8%).
- *transport – congestion/roading* - Asian/Indian residents (16%).
- *public transport/cycleways* - retired people (3%).
- *sprays/pesticides/poisons* - those aged 18-19 years old (7%), with no secondary school qualifications (5%), those aged 40 to 49 years (5%) or with Maori ancestry (4%).
- *town planning/urban sprawl/graffiti* - those aged 18-19 years (10%).
- *population increase* - 18-19 year olds (4%) or unemployed (4%).
- *natural hazards (including flooding)* - those aged 50-59 years (4%).
- *electricity/power generation/energy supply* - those that are retired (4%), with an annual household income of less than \$30,000 (4%), aged 60 years or older (3%) or New Zealand European (2%).
- *animal and plant pests and disease* - those aged 60 years or older (3%).
- *managing land use/managing resources* - those with an annual household income of \$30,001 and \$60,000 (2%).
- *ozone layer/global warming* - people who are working part-time (2%).
- *weather/climate change* - those that are working part-time (1%) or have no formal qualifications (1%).
- *Environment Waikato administrative issues* - non-farming rural occupations (1%).
- *farming/agricultural pollution* - Asian/Indian (4%), students (4%), or with tertiary qualifications (2%).
- *coastal development, access, erosion* - people who are working part-time (3%).
- *environmental education* - those with no formal qualifications (4%), Asian/Indian residents (3%) or unemployed (3%).



- *general concern* - those with no formal qualifications (1%), retired (1%), with a household income of less than \$30,000 (1%) or aged 60 years or older (1%).
- *smells* - unemployed people (2%).
- *too many motorboats, jet skis on waterways* - people working part-time (1%).
- *fencing off waterways/bush* - farmers (1%), those with trade certificates (1%) or with an annual household income of \$90,001 to \$150,000 (1%).
- *noise* - those aged 20-29 years (1%).
- *other issues* - those with an annual household income of \$150,000 or more (3%).
- *no environmental issues facing the region* - Asian/Indian residents (14%), 18-19 year olds (11%) or those with no secondary school qualifications (7%).
- *do not know* - those with no formal qualifications (34%), aged 18-19 years (32%), Asian/Indian (21%), working part-time (18%), Maori (16%), with an annual household income of less than \$30,001 (15%) or with an annual household income between \$30,001 to \$60,000 (13%).

### 3.2.3 Geographic Variation

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

- *Franklin* - rubbish disposal (14%) and smells (2%).
- *Thames-Coromandel* - coastal development/access/erosion (12%), natural hazards, including flooding (11%), marine environment (10%), sewage (4%), animal pests and disease (4%), ozone layer/global warming (3%) and weather/climate changes (1%).
- *Hauraki* - no important issue facing the region (9%), sprays/pesticides and poisons (9%) and animal pest and disease (5%).
- *Waikato* - dumps/landfills (3%), noise (1%) and environmental education (1%).
- *Hamilton* - water quality and supply (17%), air pollution (13%), transport – congestion/roading (6%), water pollution issues in relation to the Waikato River (4%), farm/ agricultural pollution (2%), public transport/cycleways (2%) and parks and reserves (1%).
- *Matamata-Piako* - erosion/deforestation/ preserve natural environment (6%) and ozone layer/global warming (3%).
- *Waipa* - rubbish disposal (13%) and recycling (12%) and electricity /power generation/ energy supply (6%).
- *Otorohanga* - weather/climate changes (2%).
- *South Waikato* - not know of any important issue facing the region (21%), or mention sewage (2%) and a general concern (1%).
- *Waitomo* - smells (2%).
- *Taupo* - water pollution (28%), sprays/pesticides/poisons (9%), Lake Taupo – water pollution/clean up the lake (6%), plant pests (4%) and too many boats, jet skis, etc on waterways (1%).
- *Living in the districts as opposed to Hamilton city* - effluent disposal/run-off (6%), recycling (4%), sprays/pesticides/poisons (3%), natural hazards (including flooding) (3%), electricity/power generation/energy supply (3%), animal and plant pests and disease (2%), coastal development, access, erosion (2%), the marine environment (2%) and managing land use/managing resources (1%).
- *Urban areas* - air pollution (10%).
- *Rural areas* - effluent disposal/run-off (8%), erosion/deforestation (5%), managing land use/managing resources (2%) and weather/climate change (1%).

The most commonly mentioned issues for each territorial authority can be found in the District Summaries section of this report.

### 3.2.4 Next Most Important Environmental Issue

Residents were also asked what they thought was the *next most important environmental issue facing the Waikato region*.

**Water pollution** is also the most frequently mentioned ‘next most important issue’ for 18% of respondents. Reflecting results for the single most important issue, the proportion of respondents citing **water quality and supply** as an issue facing the region has increased significantly since 2003 – up from 1% to 8%.

**Waste disposal** is the second next most important issue with 16% of residents reporting some aspect such as **recycling** (6%). While the proportion of residents reporting **rubbish disposal issues** as the next most important environmental issue has declined significantly since 2003 (down from 8% in 2003 to 5%), mention of recycling has increased over the same period (up from no mentions in 2003 to 6% in 2006).

**Air pollution** is the third most frequently mentioned “next most important” issue, being cited by 12% of all Waikato region residents – this proportion is up significantly from 2003 (9%). A further 6% of residents each identified **transport – congestion/roading** or **water pollution generally** (respectively) - as the region’s next most important issue. Five per cent of respondents stated that there are no other environmental issues facing the Waikato region.

Details of the ‘next most important’ issues are shown below in Table 3.4.

**Table 3-4: Next Most Important Environmental Issue Facing Waikato Region**

	2000 %	2003 %	2006 %
<b>Water Pollution – Total</b>	<b>20</b>	<b>20</b>	<b>18</b>
Water quality and supply	7	1	8
Water pollution	13	13	6
Waikato River – water, clean up the river	-	2	1
Marine environment	-	1	1
Effluent disposal/run-off	-	2	1
Fertiliser/nitrogen run-off	-	1	1
Lake Taupo – water pollution/clean up the lake	-	-	<0.5
<b>Rubbish and Recycling - Total</b>	<b>12</b>	<b>11</b>	<b>16</b>
Recycling	-	-	6
Rubbish disposal	10	8	5
Littering	1	1	3
Dumps/landfills	1	2	2
<b>Other Issues</b>			
Air pollution	5	9	12
Transport – congestion/roading ( <i>previously Transport</i> )	1	11	6
Erosion/deforestation/preservation of natural environment	4	3	4
Pollution/general pollution - industrial	4	4	3
Plant pests ( <i>previously Noxious weeds</i> )	4	5	3
Coastal development, access, erosion	-	-	2
Parks and reserves	<0.5	1	2
Town planning/urban sprawl/graffiti	1	3	2
Public transport/cycleways	-	-	2
Animal pest and disease ( <i>previously Pest control</i> )	5	6	2
Ozone layer/global warming	1	1	1

Native birds/trees	3	2	1
Managing land uses/managing resources	1	2	1
Natural hazards including flooding <i>(previously Drainage/flooding)</i>	1	1	1
Electricity/power generation/energy supply	-	-	1
Sewage	1	1	1
Population increase	<0.5	1	1
Environmental education	1	1	1
Noise	-	1	1
Sprays/pesticides/poisons	4	3	1
Fencing off waterways/bush	-	1	1
Environment Waikato administrative issues	-	-	1
General concern	1	1	< 0.5
Gypsy Moth spraying	-	1	<0.5
Genetic Engineering	-	1	-
Other	-	4	1
Nothing	-	-	6
Don't know/no reply	26	14	16
<i>Base (respondents) Excludes those who gave a "don't know" or "nothing" response when asked to identify the single most important environmental issue facing the Waikato region.</i>	1873	1822	864*
<i>Note: Multiple responses to this question were permitted. Consequently the table may total more than 100%</i>			

Other issues mentioned this year by less than 1% of residents are:

- Weather/climate change, Water levels, Health services, Farm/agricultural Pollution, Visual Pollution, Planting more trees, Forestry and Smells

### 3.2.5 Demographic Comparisons

Significant demographic differences in the next most important environmental issue facing the Waikato region were identified. These were for:

#### *Water Pollution*

- *water pollution* - Maori (11%) or with Maori ancestry (11%).
- *fertiliser/nitrogen run-off* - those aged 40-49 years (2%).
- *Lake Taupo – water pollution/clean up the lake* - farmers (1%) and those with an annual household income of \$90,001 to \$150,000 (1%).

#### *Waste Disposal*

- *rubbish disposal* - Europeans/Pakeha (6%) and those with no Maori ancestry (6%).
- *recycling* - Maori (9%), females (8%), those with tertiary qualifications (9%) and 20-29 year olds (9%).
- *dumps/landfills* - those aged 30-39 (4%), working full-time (3%) and non-farming rural occupations (2%).

#### *Other Issues*

- *air pollution* - students (24%).
- *transport – congestion/roading* - those aged 50-59 years (10%).
- *public transport/cycleways* - those with tertiary qualifications (3%).
- *erosion/deforestation/preservation of natural environment* - those with an annual household income of \$60,001 to \$90,000 (7%).
- *pollution/general pollution – industrial* - those who attended secondary school (9%), students (9%), Maori (7%), males (5%) and those with an annual household income of \$30,001 to \$60,000 (5%).
- *plant pests* - those aged 40-49 years (5%).

- *coastal development, access, erosion* - retired people (4%).
- *marine environment* - those with trade certificates (4%).
- *parks and reserves* - those aged 20-29 years (4%) or New Zealand European (2%).
- *town planning/urban sprawl/graffiti* - those with an annual household income of more than \$150,000 (8%), with household responsibilities (8%) or aged 50-59 (4%).
- *population increase* - those with an annual household income of \$60,001 to \$90,000 (2%).
- *ozone layer/global warming* - those with a trade certificate (7%) or with an annual household income of \$90,001 to \$150,000 (3%).
- *managing land use/managing resources* - farmers (4%), those with trade certificates (4%) and males (2%).
- *natural hazards (including flooding)* - unemployed people (5%), those with an annual household income of more than \$150,000 (4%) or retired people (3%).
- *electricity/power generation/energy supply* - retired people (4%).
- *sewage* - students (5%) or those with an annual household income of \$90,001 to \$150,000 (3%).
- *environmental education* - those working part-time (2%).
- *noise* - those with a trade certificate (4%) or with an annual household income of \$90,001 to \$150,000.
- *fencing off waterways/bush* - farmers (4%) or those who attended secondary school (2%).
- *Environment Waikato administrative issues* - those with trade certificates (3%) or those aged 50-59 years (2%).
- *general concern* - those working part-time (1%) or who attended secondary school (1%).
- *farming/agricultural pollution* - in terms of the other issues, students (3%) and those with an annual household income of less than \$30,001 (1%) or aged 50-59 years (1%).
- *planting more trees* - those with annual household incomes between \$90,001 and \$150,000 (1%).
- *water levels* - people with household responsibilities (3%) and those with an annual household income of more than \$150,000 (2%).
- *no next most important issues* - those who attended secondary school (12%), Maori (11%), with Maori ancestry (11%), retired (10%), living in the districts (8%) or male (8%).
- *do not know* - those with secondary school qualifications (23%) or aged 20-29 years (21%).

### 3.2.6 Geographic Variation

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

- *Franklin* - littering (8%), weather/climate change (2%) and general concern (2%).
- *Thames-Coromandel* - coastal development/access/erosion (13%), marine environment (13%), town planning/urban sprawl/graffiti (6%), sewage (3%), fencing off waterways/bush (3%), Environment Waikato administrative issues (3%) and forestry (2%).
- *Hauraki* - ozone layer/global warming (6%), and effluent disposal/run-off (4%).
- *Waikato* - no next most important environmental issues facing the region today (12%), and mention farming/agricultural pollution (1%), and visual pollution (1%).

- *Hamilton* - air pollution (16%), transport – congestion/roading (12%), water pollution (9%), public transport/cycleways (4%) and water pollution issues in relation to the Waikato River (2%).
- *Matamata-Piako* - plant pests (7%), electricity/power generation/energy supply (5%), effluent disposal/run-off (5%), dumps/landfills (4%), environmental education (3%), fertiliser/nitrogen run-off (3%) and water levels (2%).
- *Waipa* - native birds/trees (5%) and Lake Taupo – water pollution/clean up the lake (1%)
- *Otorohanga* - No issues significant.
- *South Waikato* - environmental education (4%), fencing off waterways/bush (3%) and smells (3%).
- *Waitomo* - native birds/trees (6%), sewage (3%) and planting more trees (2%).
- *Rotorua* - managing land use/managing resources (5%) and smells (3%).
- *Taupo* - population increase (4%).
- *Living in the districts as opposed to Hamilton city* - littering (4%), plant pests (4%), coastal development, access, erosion (3%), marine environment (2%) and effluent disposal/run-off (1%) or no next most important issues (8%).
- *Urban Areas* - air pollution (13%), transport – congestion/roading (8%), public transport/cycleways (2%) and parks and reserves (2%).
- *Rural Areas* - coastal development, access, erosion (4%), native birds/trees (3%), and fencing off waterways/bush (2%).

The most commonly mentioned next most important issues for each territorial authority can be found in the District Summaries section of this report.

### 3.3 Most Important Environmental Issue in Five Years

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

#### 3.3.1 Overall Result and Comparison with Previous Years

In 2003 – and consistent with the most important issues currently seen to be facing the Waikato region - **water pollution** (20%) was considered the most important issue facing the region in five years time. In 2006, the proportion of respondents identifying water pollution has declined significantly – from 20% in 2003 to 8%. However, accompanying this decline has been a significant increase in the proportion of respondents identifying **water quality and supply** as the most important environmental issue in five years time – up from 4% in 2003 to 12% in 2006. It is also of note that, while **effluent disposal/run-off** is identified as an important issue currently impacting on the Waikato region (5% citing this as the most important issue affecting the region, and a further 1% identifying it as the next most important), few residents see it as a future issue to the same extent (1% citing effluent disposal/run-off as the most important issue in the next five years). If these three water pollution-related issues are combined with the other water issues, water pollution continues to be considered the most important issue facing the Waikato region in five years time (being mentioned in some form by 24% of residents).

In 2000, respondents thought that **rubbish disposal** would be the most important environmental issue in five years time (19%). However, since 2000, a number of initiatives have been undertaken across the region in introducing recycling schemes. Issues related to rubbish disposal has dropped to the third most commonly mentioned this year (8%). **Recycling** has become an issue in its own right with 3% mentioning it as the most important issue in five years time.

**Air pollution** is now the single most frequently mentioned future environmental issue the region will face, this issue cited by 16% of all respondents. The level of

concern in relation to air pollution has increased significantly over the last three years, being mentioned by only 8% of residents in 2003 compared with 16% this year.

Frequency of mention of **transport – congestion/roading** has also declined significantly over the last three years – down from 12% in 2003 to 3% in 2006.

The **ozone layer/global warming** (8%) is also frequently identified by respondents as an issue perceived to be important in five years time (mention of this issue having increased from 4% in 2003).

Detailed responses are shown below in Table 3.5.

**Table 3-5: Most Important Environmental Issue in Five Years Time**

	2000 %	2003 %	2006 %
<b>Water Pollution – Total</b>	<b>24</b>	<b>30</b>	<b>24</b>
Water quality and supply	10	4	12
Water pollution	14	20	8
Effluent disposal/run-off	-	1	1
Marine environment	-	1	1
Waikato River – water/clean up the river	-	2	1
Fertiliser/nitrogen run-off	-	1	1
Lake Taupo – water pollution/clean up the lake	-	1	< 0.5
<b>Rubbish Disposal and Recycling – Total</b>	<b>21</b>	<b>11</b>	<b>15</b>
Rubbish disposal	19	10	8
Recycling	-	-	3
Littering		< 0.5	2
Dumps/landfills	2	1	2
<b>Other Issues</b>			
Air pollution	8	8	16
Ozone layer/global warming	7	4	8
Transport – congestion/roading ( <i>previously Transport</i> )	1	12	3
Pollution/general pollution – industrial	6	7	3
Population increase	2	5	3
Town planning/urban sprawl/graffiti	1	3	3
Electricity/power generation/energy supply	-	1	2
Weather/climate change	-	1	2
Managing land use/managing resources	1	2	2
Erosion/deforestation/preservation of natural environment	3	1	1
Public transport/cycleways	-	-	1
Animal pests and disease ( <i>previously Pest control</i> )	2	3	1
Coastal development, access, erosion	-	-	1
Sprays/pesticides/poisons	3	1	1
Sewage	2	1	1
Natural hazards including flooding ( <i>previously Drainage/flooding</i> )	2	1	1
Parks and reserves	-	< 0.5	1
Farm/agricultural pollution	-	-	1
Environmental education	<0.5	1	< 0.5
Genetic engineering	-	3	-
Native trees and birds	1	1	-
Lake water level	-	1	-

Other	7	4	1
Nothing	1	1	4
Don't know	14	12	13
<i>Base (respondents)</i>	1873	1822	1000

*Note: Multiple responses to this question were permitted.  
Consequently the table may total more than 100%*

Other issues mentioned this year by less than 1% of residents are:

- Mining, Environment Waikato administrative issues, Health issues, Native trees and birds, Noise and Fencing off waterways/bush.

### 3.3.2 Demographic Comparisons

Significant demographic differences in the next most important environmental issue facing the Waikato region were identified. These were for:

#### *Water Pollution:*

- *water quality and supply* - farmers (24%), those aged 40 to 49 years (20%), males (15%) or those working full-time (14%).
- *effluent disposal/run-off* - those with no formal qualifications (7%), with a trade certificate (6%) or aged 18-19 years (4%).
- *marine environment* - those who attended secondary school (2%).
- *Waikato River – water/clean up the river* - Maori (2%) and those with an annual household income (2%).
- *fertiliser/nitrogen run-off* - farmers (3%) and males (1%).
- *Lake Taupo – water pollution/clean up the lake* - those aged 30-39 years (1%) or with an annual household income between \$60,001 and \$90,000 (1%).

#### *Waste Disposal:*

- *rubbish disposal* - those with an annual household income of \$90,001 to \$150,000 (15%).
- *recycling* - those with secondary school qualifications (4%) were more likely to mention.
- *dumps/landfills* - those with household responsibilities (6%) or aged 30-39 years (3%).

#### *Other Issues:*

- *air pollution* - females (18%).
- *ozone layer/global warming* - students (17%), retired (13%), aged 60 years and older (13%), with no Maori ancestry (10%) or New Zealand European (10%).
- *weather/climate changes* – those with a trade certificate (7%) or aged 50-59 years (4%).
- *transport – congestion/roading* - students (14%), with no Maori ancestry (4%) or New Zealand European (4%).
- *public transport/cycleways* - those who are unemployed/beneficiaries (7%), aged 50 to 59 years (3%) or tertiary-qualified respondents (2%).
- *pollution/general pollution - industrial* - those involved in home responsibilities only (not in paid employment and not receiving government financial support) (8%).
- *population increase* - those aged 18-19 years (9%) and 20-29 years (6%).
- *electricity/power generation/energy supply* – NZ European (3%) or those with no Maori ancestry (3%).
- *erosion/deforestation/preservation of natural environment* - those with no formal qualifications (6%) and females (2%).
- *coastal development, access, erosion* - those with an annual household income of more than \$150,000 (5%), retired (3%) and aged 60 years and older (3%).
- *sprays/pesticides/poisons* - Maori (2%), with Maori ancestry (2%) or aged 40-49 years (2%).

- *sewage* - those with Maori ancestry (3%).
- *natural hazards (including flooding)* - those with trade certificates (4%).
- *farming/agricultural pollution* - those with an annual household income of \$60,001 to \$90,000 (3%), aged 20-29 years (2%), working full-time (1%) or with a tertiary qualification (1%).
- *environmental education* - Asian/Indians (3%).
- *native birds/trees* - students (4%), aged 18-19 years (4%), with a secondary school qualification (1%) or with an annual household income between \$90,001 to \$150,000 (1%).
- *mining* - with a trade certificate (2%), aged 40-49 (2%) or with Maori ancestry (1%).
- *Environment Waikato administrative issues* - with a trade certificate (2%) or aged 50-59 years (1%).
- *fencing off waterways/bush* - farmers (2%), aged 50-59 (1%) or with no formal qualifications (1%).
- *noise* - those with an annual household income of less than \$30,000 (1%), retired (1%) or aged 60 years and older (1%).
- *no important environmental issues facing the region in five years time* - those who are retired (9%), no formal qualifications (9%), with an annual household income of less than \$30,000 (7%) or aged 60 years and older (7%).
- *do not know* - those aged 18-19 years (37%), farmers (20%), aged 20-29 (17%) or with a secondary school qualification (17%).

### 3.3.3 Geographic Variation

When considered by territorial authority and by urban and rural locations, the following significant differences emerge for certain environmental issues mention:

- *Franklin* - littering (6%) and the Waikato River – clean up the river (3%).
- *Thames-Coromandel* - coastal development/access/erosion (13%), marine environment (5%), natural hazards and flooding (4%), and animal pests and disease (3%).
- *Hauraki* - coastal development/access/erosion (5%).
- *Waikato* - no important environmental issues facing the region in five years time (9%), Waikato River water/clean up the river (2%) and environmental education (2%).
- *Hamilton* - air pollution (21%), transport – congestion/roading (6%), public transport/cycleways (3%), sewage (2%) and native trees and birds (<1%).
- *Matamata-Piako* - weather/climate changes (8%) and mining (3%).
- *Waipa* - transport – congestion/roading (8%), fencing off waterways/bush (1%), noise (1%) and Lake Taupo (1%).
- *South Waikato* - population increase (8%), littering (6%), effluent disposal/runoff (5%) and farm/agricultural pollution (3%).
- *Otorohanga* - do not know of any important environmental issues facing the region in five years time (31%), Environment Waikato administrative issues (2%) and fencing off waterways/bush (2%).
- *Waitomo* - erosion/deforestation/preserve natural environment (6%) and the marine environment (3%).
- *Rotorua* - water quality and supply (27%), erosion/deforestation/preserve natural environment (9%) and fertilisers/nitrogen runoff (6%).
- *Taupo* - dumps/landfills (5%), managing land use/managing resources (4%) and sprays/pesticides/poisons (4%).
- *Living in the districts as opposed to Hamilton city* - erosion/deforestation/preservation of natural environment (2%), coastal development, access, erosion (2%), natural hazards (including flooding) (1%), no important environmental issues facing the region in five years time (5%) or do not know of any important environmental issues facing the region in five years time (15%).
- *Urban Areas* - air pollution (18%) and transport – congestion/roading (4%).



- *Rural Areas* - water quality and supply (16%), erosion/deforestation/preservation of natural environment (3%), natural hazards (including flooding) 2%) and marine environment (2%).

The most commonly mentioned issues in five years time for each territorial authority can be found in the District Summaries section of this report.

## 4 Perceptions of Changes Regarding Environmental Issues

This section considers residents' perceptions of a range of environmental issues and their views on changes regarding these issues over the last few years. Residents were asked to rate each issue using a five point scale, saying whether they felt the issue had got much better, a little better, stayed the same, got a little worse, or much worse in the last few years.

*Note: The question wording used in 2003 and 2006 for this section differs from the wording used in 1998 and 2000. In particular, in previous measures respondents were not given a time frame as a reference for rating whether each environmental issue had improved, deteriorated, or stayed the same; whereas in 2003 and 2006, respondents were asked whether they felt each issue had become better, worse, or stayed the same **in the last few years**. It is difficult to determine what effect, if any, this wording change might have had on the results obtained. Therefore, comparisons over time should be interpreted with caution.*

### Key findings are:

- Waikato region residents mostly say that the **overall state of the local environment** had improved (39%, up significantly from 33% in 2003) or stayed the same (38%) over the last few years. Just over one in five (22%) perceive the local environment has recently deteriorated (little change since 2003, but up from 12% in 1998).
- The specific aspect of their local environment *both rural and urban respondents* thought had got better over the last few years was:
  - The availability of waste recycling services (49% *a little or much better*).
- Specific aspects of their local environment rural and urban residents thought had remained unchanged over the last few years were:
  - Water quality in local streams, rivers and lakes (42% *stayed the same*)
  - Pollution or waste produced by nearby businesses and industries (40%)
  - Pollution or waste produced by nearby farms (36%).
- While no aspects of the local environment were considered by the greatest proportion of rural and urban residents to have deteriorated over the last few years, rates of perceived deterioration are highest for:
  - Water quality in streams, rivers and lakes (32% of all respondents describing this as *a little or much worse*)
  - Pollution or waste produced by nearby businesses and industries (25% of all respondents giving a rating of *a little or much worse*).
- Among *rural respondents*, specific aspects of their local environment they feel have got better over the last few years include:
  - Fencing off areas of native bush or wetland (50% *a little or much better* than a few years ago), with very few (6%) giving a rating of *a little or much worse*.
  - Fencing off of streams, lakes and rivers (46%)
  - Disposal of effluent according to the rules (40%).
- *Rural respondents* largely perceive that soil and land erosion in their local environment has remained relatively unchanged over the last few years

(48% *stayed the same*). However, 27% of rural respondents gave a rating of *a little* or *much worse*).

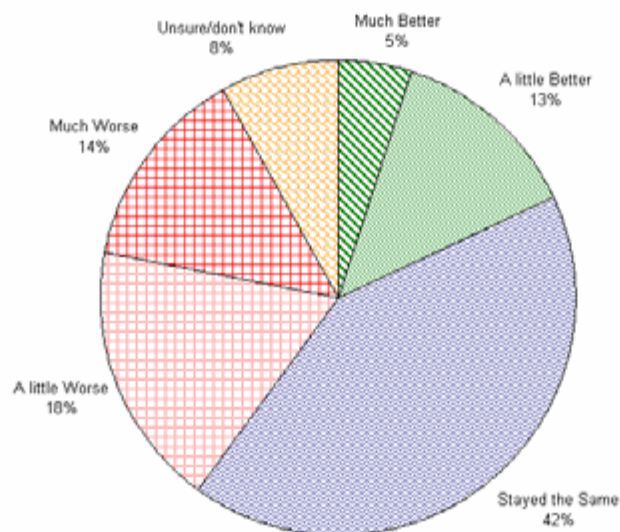
- *Urban respondents* perceive that public transport availability in their local environment has got better over the last few years (47% *a little* or *much better*). In contrast, urban respondents perceive the following aspects of their local environment have remained relatively unchanged:
  - Natural amenities in local town or city (47% *stayed the same*)
  - Cyclist-friendly roading (45%).

## 4.1 Water Quality in Local Streams, Rivers and Lakes

Residents were asked whether they thought *the water quality in your local streams, rivers, and lakes* had become better, worse or stayed the same in the last few years.

### 4.1.1 Overall Result

The greatest proportion of residents (42%) rated the water quality in their local streams, rivers and lakes as *much the same* as it was a few years ago. Just less than a third (32%) of all residents thought the water quality had deteriorated in the last few years (14% *much worse*, 18% *a little worse*), while just less than one in five (18%) stated that the water quality had improved over recent years (5% *much better*, 13% *a little better*).



Base: All residents (n=1000)

**Figure 4-1: Perceptions of Change in Water Quality in Local Streams, Rivers and Lakes**

### 4.1.2 Comparison with Previous Years

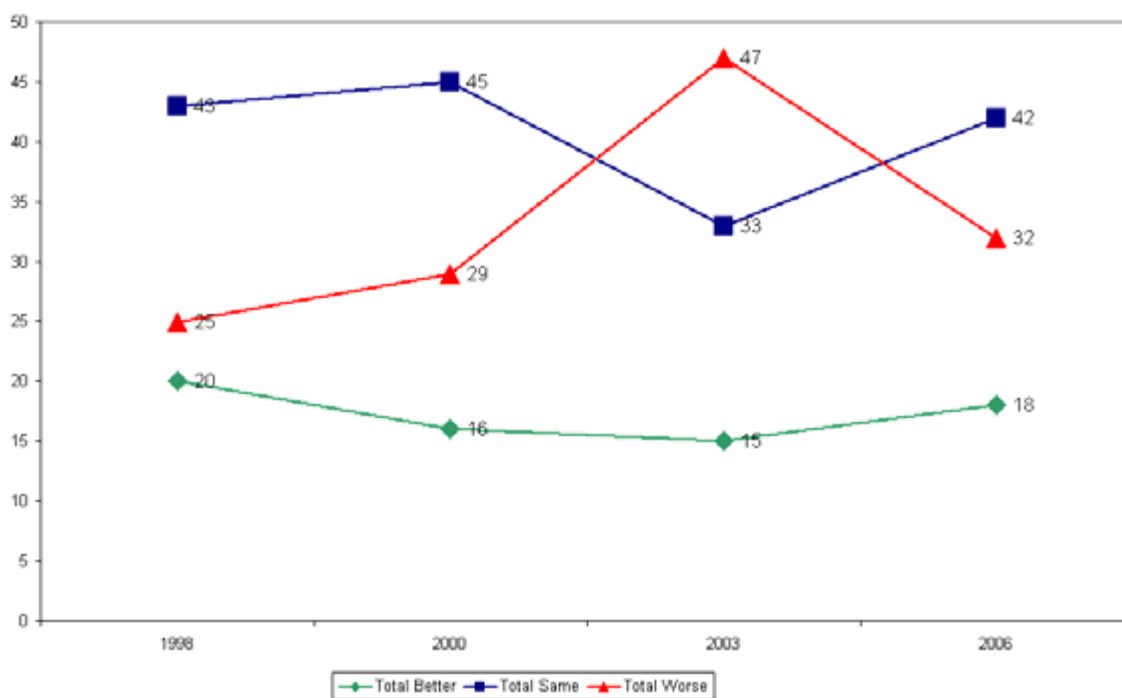
The 2006 results are significantly different to the findings of the 2003 survey, but are somewhat similar to those reported in 2000. In particular, significantly fewer residents stated that water quality had become worse over recent years than in 2003 (total worse down from 47% in 2003 to 32% in 2006), although total worse is up from 25% in the 1998 benchmark. Conversely, there has been a significant increase in the proportion of residents perceiving that their local water quality has remained the same over the last few years (up from 33% in 2003 to 42% in 2006).

The proportion of respondents who believed the water quality had improved recently has remained relatively unchanged since the previous measure.

**Table 4-1: Perceptions of Changes in Water Quality in Local Streams, Rivers and Lakes, 1998, 2000, 2003, 2006**

	1998 %	2000 %	2003 %	2006 %	Change 98-06	Change 03-06
Much better	4	4	5	5	+1	0
A little better	16	12	10	13	-3	+3
<b>Total better</b>	<b>20</b>	<b>16</b>	<b>15</b>	<b>18</b>	<b>-2</b>	<b>+3</b>
Stayed same	43	45	33	42	-1	+9
A little worse	19	21	27	18	-1	-9
Much worse	6	8	20	14	+8	-6
<b>Total worse</b>	<b>25</b>	<b>29</b>	<b>47</b>	<b>32</b>	<b>+7</b>	<b>-15</b>
Unsure/don't know	12	10	5	8	-4	+3
<i>Base (respondents)</i>	<i>1037</i>	<i>1873</i>	<i>1822</i>	<i>1000</i>		

This trend is shown below in Figure 4.2.



**Figure 4-2: Perceptions of Changes in Water Quality in Local Streams, Rivers and Lakes, 1998, 2000, 2003, 2006**

### 4.1.3 Demographic Variation

Those significantly more likely (than the regional average) to say the water quality in local streams, rivers and lakes had **got better** were those:

- working in farming occupations (31%)
- with an annual household income of less than \$30,000 (24%).

Those significantly more likely to say the water quality in local streams, rivers and lakes has **stayed the same** are those:

- NZ European (44%) and with no Maori ancestry (44%).

Those significantly more likely to say the water quality had **got worse** were those:

- of Maori ancestry (45%)

- with an annual household income of \$60,001 to \$90,000 (39%)
- with tertiary qualifications (35%).

#### 4.1.4 Geographic Variation

When considered by territorial authority and by urban/rural locations, those more likely to think the quality of local streams, rivers and lakes had **got better** were:

- living in Matamata-Piako (30%) or living in rural areas (25%).

Those significantly more likely to think local water quality had **got worse** were:

- living in Waikato (44%) or Taupo (44%) or living in urban areas (33%).

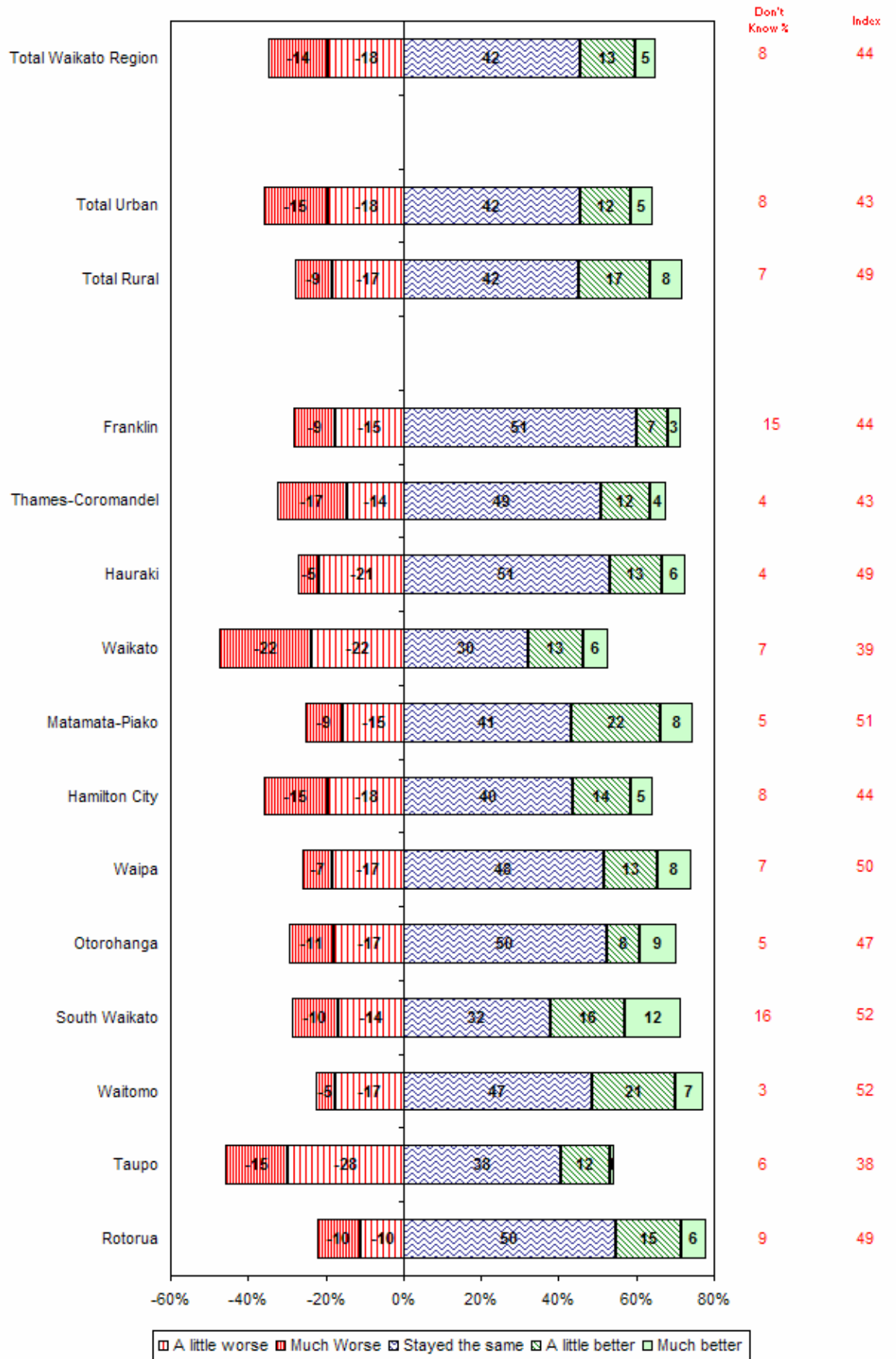


Figure 4-3: Perceptions of Changes in Water Quality in Local Streams, Rivers, and Lakes by Urban/Rural and Territorial Authority

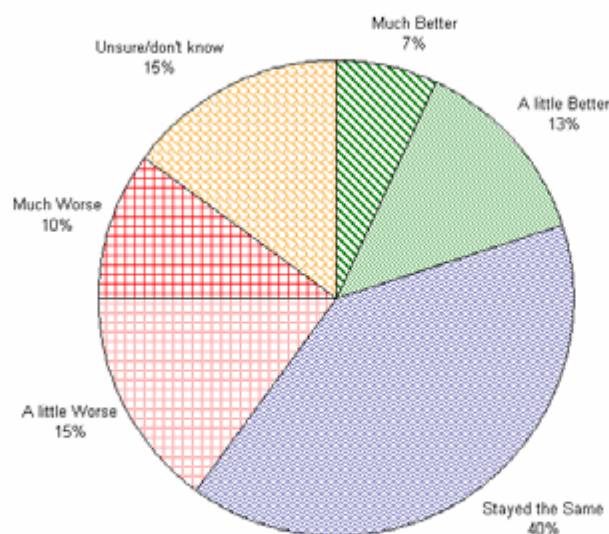
## 4.2 Pollution or Waste Produced by Nearby Businesses and Industries

Residents were asked whether they thought that the *level of pollution or waste produced by nearby businesses and industries* had become better, worse or stayed the same in the last few years.

*Note: In previous surveys, respondents had been asked about the level of pollution or waste produced by nearby businesses, farms and industries as a single question. In the 2006 survey, the perception of pollution or waste produced by nearby businesses and industries was assessed separately. In addition, in 2003, due to time constraints, this question was only asked of a sub-set of the total sample. Consequently, it is not possible to compare results for this question over time.*

### 4.2.1 Overall Result

A quarter of residents (25%) thought that the level of pollution or waste produced by nearby businesses and industries had become worse over the past few years (10% *much worse*, 15% *a little worse*). In contrast, slightly fewer (20%) believed there had been an improvement over recent years in the waste pollution being produced by businesses and industries (7% *much better*, 13% *a little better*). However, the greatest proportion of residents (40%) thought there had been no change in the amount of pollution created by nearby commercial entities.



Base: All residents (n=1000)

**Figure 4-4: Perceptions of Change in Pollution or Waste Produced by Nearby Businesses and Industries**

### 4.2.2 Comparison with Previous Years

*Note: In previous surveys, respondents had been asked about the level of pollution or waste produced by nearby businesses, farms and industries as a single question. In the 2006 survey, the perception of pollution or waste produced by businesses and industries was assessed separately. Consequently, results for this question are not directly comparable over time.*

### 4.2.3 Demographic Variation

Those significantly more likely (than the regional average) to think that the level of pollution or waste produced by nearby businesses and industries had **got better** were those:

- who are male (23%)
- working full-time (23%).

Those significantly more likely to think that it had **stayed the same** were those:

- with an annual household income of \$60,001 to \$90,000 (49%)
- aged between 20-29 years (48%)
- with tertiary qualifications (45%)
- New Zealand European (42%).

Those significantly more likely to think that it had **got worse** were those:

- aged 18 to 19 years (61%)
- Maori (36%) or with Maori ancestry (32%).

### 4.2.4 Geographic Variation

No particular territorial authority or urban/rural residents were identified as being more likely to think that the level of pollution or waste produced by nearby businesses and industries had **got better** over the past few years.

Those significantly more likely to say that the level of pollution or waste produced by nearby businesses and industries had **got worse** were:

- living in Waikato (33%).



**Figure 4-5: Perceptions of Changes in Pollution or Waste Produced by Nearby Business and Industries by Urban/Rural and Territorial Authority**



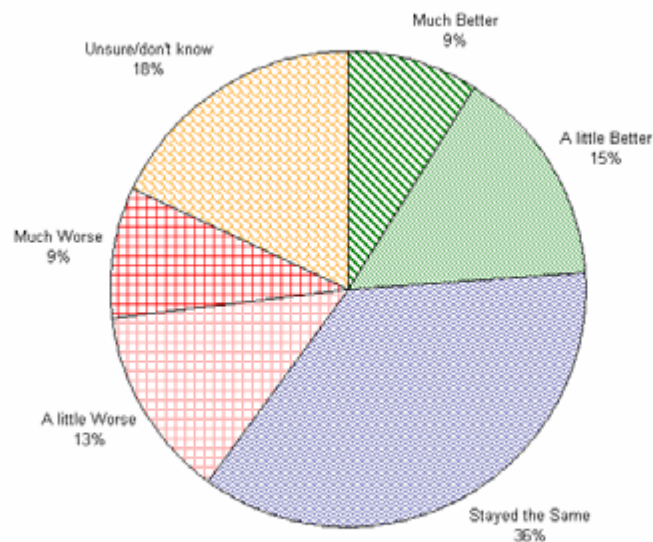
## 4.3 Pollution or Waste Produced by Nearby Farms

Residents were asked whether they thought that *the level of pollution or waste produced by nearby farms* had become better, worse or stayed the same in the last few years.

*Note: In previous surveys, respondents had been asked about the level of pollution or waste produced by nearby businesses, farms and industries as a single question. In the 2006 survey, perception of pollution or waste produced by farms was assessed separately. Consequently, it is not possible to compare results for this question over time.*

### 4.3.1 Overall Result

The greatest proportion of residents (36%) believed there had been no change in the amount of pollution created by nearby farms. In contrast, just less than a quarter of residents (24%) thought that the level of pollution or waste produced by nearby farms had improved in the past few years (9% *much better*, 15% *a little better*), while 22% felt that the level of pollution in recent years had deteriorated (9% *much worse*, 13% *a little worse*).



Base: All residents (n=1000)

**Figure 4-6: Perceptions of Change in Pollution or Waste Produced by Nearby Farms**

### 4.3.2 Comparison with Previous Years

*Note: In previous surveys, respondents had been asked about the level of pollution or waste produced by nearby businesses, farms and industries as a single question. In the 2006 survey, thoughts on pollution or waste produced by nearby farms were assessed separately. Consequently, it is not possible to compare results for this question over time.*

### 4.3.3 Demographic Variation

Those significantly more likely (than the regional average) to think that the level of pollution or waste produced by nearby farms had **got better** were those:

- working in farming occupations (50%)
- with an annual household income of more than \$150,000 (45%)

- with a trade certificate (36%)
- aged 50 to 59 years (34%)
- who are male (30%)
- working full-time (28%)
- of New Zealand European ethnicity (26%).

Those significantly more likely to think that the level of pollution or waste produced by nearby farms had **stayed the same** were those:

- with a tertiary qualification (41%).

Those significantly more likely to think that the level of pollution or waste produced by nearby farms had **got worse** were those:

- aged 18 to 19 years (41%)
- Maori (30%) or of Maori ancestry (29%).

#### 4.3.4 Geographic Variation

When considered by territorial authority or urban/rural locations significantly more likely to say that the level of pollution or waste produced by nearby farms had **got better** over the past few years were:

- living in Rotorua (56%), Matamata-Piako (36%) or South Waikato (36%)
- living in rural areas (31%).

Those significantly more likely to say that the level of pollution or waste produced by nearby farms had **stayed the same** were:

- living in Waitomo (55%) or Franklin (48%).

Those significantly more likely to say that the level of pollution or waste produced by nearby farms had **got worse** were:

- living in Taupo (43%) or Otorohanga (35%).



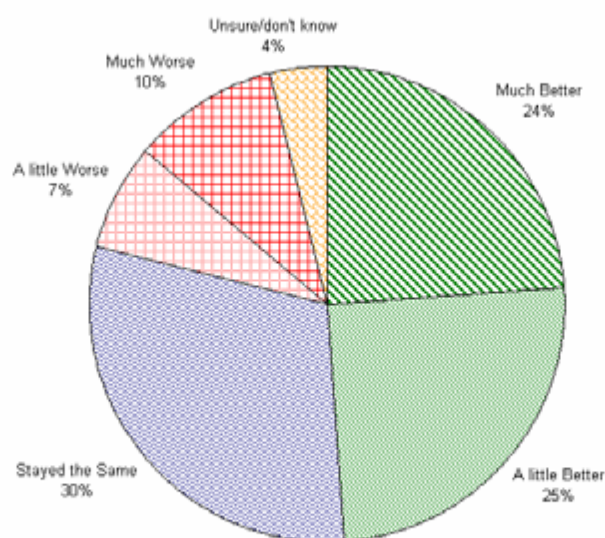
**Figure 4-7: Perceptions of Changes in Pollution or Waste Produced by Nearby Farms by Urban/Rural and Territorial Authority**

## 4.4 Availability of Waste Recycling Services and Facilities

Residents were asked whether they thought *the availability of waste recycling services and facilities in your area* had become better, worse or stayed the same in the last few years.

### 4.4.1 Overall Result

Half of all Waikato region's residents (49%) rated the waste recycling services and facilities in their area as better than a few years ago (24% *much better*, 25% *a little better*), while just less than a third of residents (30%) felt the waste recycling services were similar to a few years ago. Only a small proportion of residents consider that recycling services have deteriorated over recent years (10% *much worse*, 7% *a little worse*).



Base: All residents (n=1000)

**Figure 4-8: Perceptions of Change in Availability of Waste Recycling Services and Facilities**

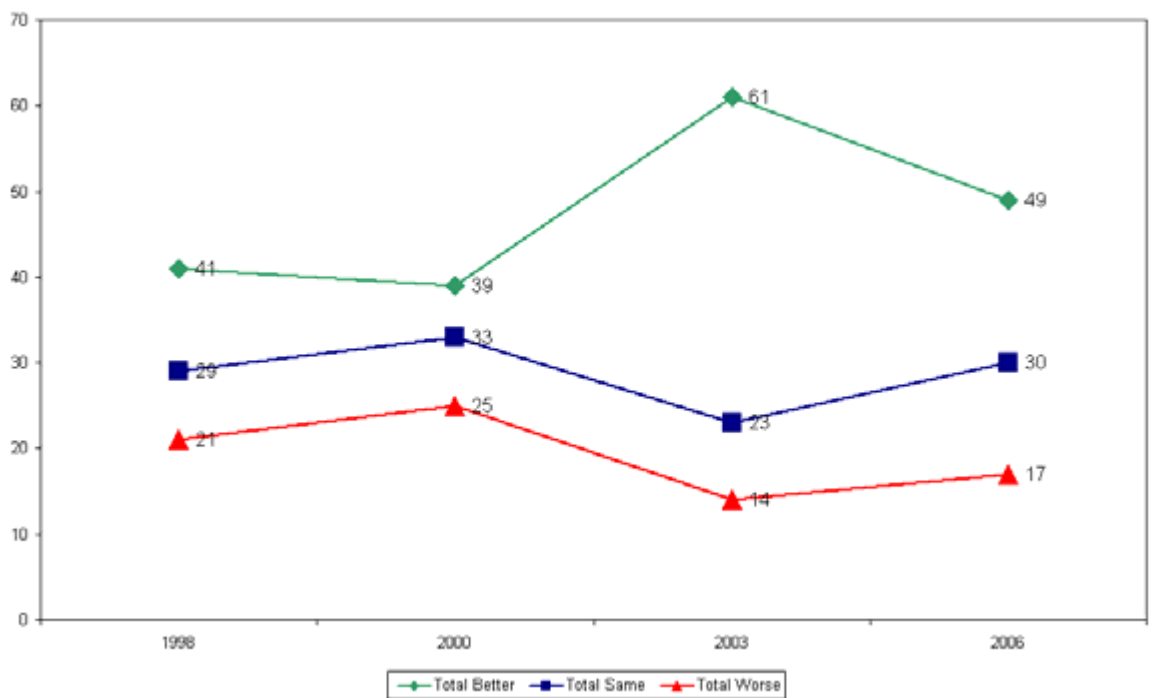
### 4.4.2 Comparison with Previous Years

Waikato region residents perceive fewer improvements have been made to their waste recycling services over the last three years than they did in 2003 (total better down significantly - from 61% in 2003 to 49% in 2006). Indeed, the most significant change in ratings is evident in the proportion of residents rating the waste recycling services as *much better* – down from 36% in 2003 to 24% in 2006 (note however, that the proportion of residents giving a *much better* rating has increased from 13% since the 1998 benchmark). Conversely, the proportion of residents in 2006 stating that waste recycling services have stayed the same has increased significantly (up from 23% in 2003 to 30% in 2006).

**Table 4-2: Perceptions of Change in Availability of Waste Recycling Services and Facilities - 1998, 2000, 2003, 2006**

	1998	2000	2003	2006	Change 98-06	Change 03-06
	%	%	%	%		
Much better	13	14	36	24	+11	-12
A little better	28	25	25	25	-3	0
<b>Total Better</b>	<b>41</b>	<b>39</b>	<b>61</b>	<b>49</b>	<b>+8</b>	<b>-12</b>
Stayed the same	29	33	23	30	+1	+7
A little worse	13	13	6	7	-6	+1
Much worse	8	12	7	10	+2	+3
<b>Total Worse</b>	<b>21</b>	<b>25</b>	<b>14</b>	<b>17</b>	<b>-4</b>	<b>+3</b>
Unsure/don't know	9	4	3	4	-5	+1
<i>Base (respondents)</i>	1037	1873	1822	1000		

This trend is shown below in Figure 4.9.



**Figure 4-9: Perceptions of Changes in Availability of Waste Recycling Services and Facilities - 1998, 2000, 2003, 2006**

### 4.4.3 Demographic Variation

Those significantly more likely (than the regional average) to say the availability of waste and recycling services had **got better** were:

- Maori (60%)
- those who have secondary school qualifications (55%)
- working full-time (53%)
- in non-farming rural occupations (52%).

Those significantly more likely (than the regional average) to say the availability of waste and recycling services had **stayed the same** were:

- aged 18-19 years (44%)
- those who have attended secondary school (41%).

Those significantly more likely (than the regional average) to say the availability of waste and recycling services had **got worse** were:

- aged 40 to 49 years (23%)
- NZ European (18%).

#### 4.4.4 Geographic Variation

When considered by territorial authority and by urban/rural locations, those more likely to say the availability of waste and recycling services had **got better** were:

- living in Hamilton (64%), Franklin (61%) or Thames-Coromandel (61%)
- living in urban areas (52%).

Those more likely to say the availability of waste and recycling services had **stayed the same** were those:

- living in Waitomo (43%) or South Waikato (42%).

Those more likely to say the availability of waste and recycling services had **got worse** were:

- living in Waipa (54%)
- living in the districts (as opposed to Hamilton city) (22%).



**Figure 4-10: Perceptions of Changes in Availability of Waste Recycling Services and Facilities by Urban/Rural and Territorial Authority**

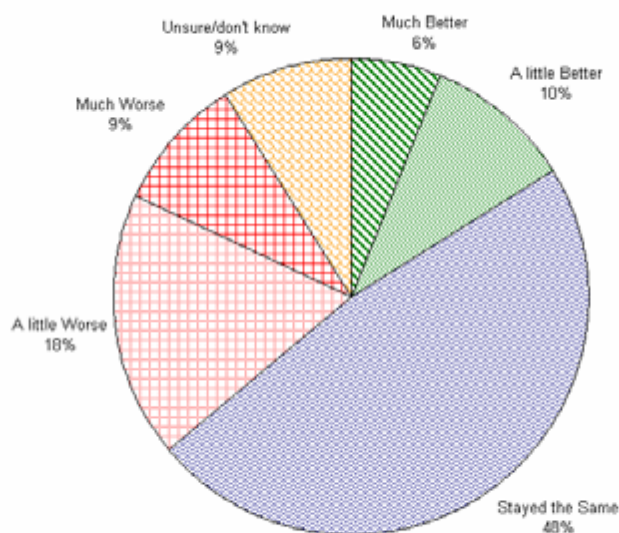
## 4.5 Soil and Land Erosion

Rural residents were asked whether they thought that *soil and land erosion* had become better, worse or stayed the same in the last few years.

*Note: In 2006 this question was only asked of rural respondents. Consequently comparisons with results from previous periods (when all respondents were asked this question) should be made with caution.*

### 4.5.1 Overall Result

Almost half of all rural residents (48%) thought there had not been much change in soil and land erosion over recent years. In contrast, just over a quarter of rural residents (27%) thought soil and land erosion had deteriorated over the past few years (9% *much worse*, 18% *a little worse*), while 16% believed improvements had been made (6% *much better*, 10% *a little better*).



Base: Rural residents only (weighted sample n=237)

**Figure 4-11: Perceptions of Change in Soil and Land Erosion**

### 4.5.2 Comparison with Previous Years

In comparison to 2003, there has been little change in the proportion of respondents who believe there have been improvements in changes in soil and land erosion over the last few years (total better up from 13% in 2003 to 16% in 2006). In contrast however, the proportion of residents who believed that soil and land erosion had deteriorated recently has increased significantly (total worse up from 21% 2003 to 27% in 2006). However, this change may be partly attributed to the significant decline in *unsure* and *don't know* ratings (down from 21% in 2003 to 9% in 2006) as a result of not asking this question of urban residents in 2006.



**Table 4-3: Perceptions of Changes in Soil and Land Erosion, 1998, 2000, 2003, 2006**

	1998 %	2000 %	2003 %	2006 %	Change 98-06	Change 03-06
Much better	2	3	4	6	+4	+2
A little better	11	16	9	10	-1	+1
<b>Total Better</b>	<b>13</b>	<b>19</b>	<b>13</b>	<b>16</b>	<b>+3</b>	<b>+3</b>
Stayed the same	44	42	45	48	+4	+3
A little worse	18	16	14	18	-	+4
Much worse	4	7	7	9	+5	+2
<b>Total Worse</b>	<b>22</b>	<b>23</b>	<b>21</b>	<b>27</b>	<b>+5</b>	<b>+6</b>
Unsure/don't know	21	16	21	9	-12	-12

Base (respondents)

1037

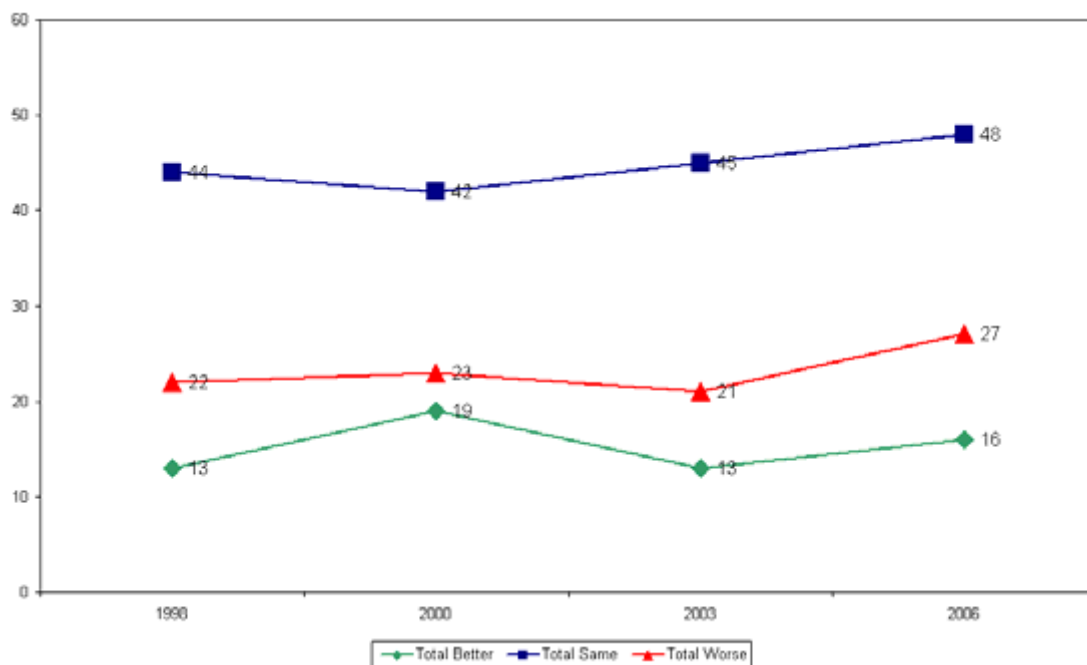
1873

1822

237\*

\* Rural respondents only

This trend is shown below in Figure 4.12.



Note: Rural residents only (weighted sample n=237) in 2006

**Figure 4-12: Perceptions of Changes in Soil and Land Erosion, 1998, 2000, 2003, 2006**

### 4.5.3 Demographic Variation

Those significantly more likely (than the regional average) to think soil and land erosion had **got better** were those:

- working in farming occupations (28%)
- working full-time (22%).

Those more likely to think soil and land erosion had **stayed the same** were those:

- who attended secondary school (63%).

No particular demographic group was identified as being more likely to think that soil and land erosion had **got worse** over recent years.

### 4.5.4 Geographic Variation

No particular territorial authority residents were significantly more likely to say soil and land erosion had either improved or deteriorated over recent years.



Base: Rural residents only (weighted sample n=237)

**Figure 4-13: Perceptions of Changes in Soil and Land Erosion by Territorial Authority**

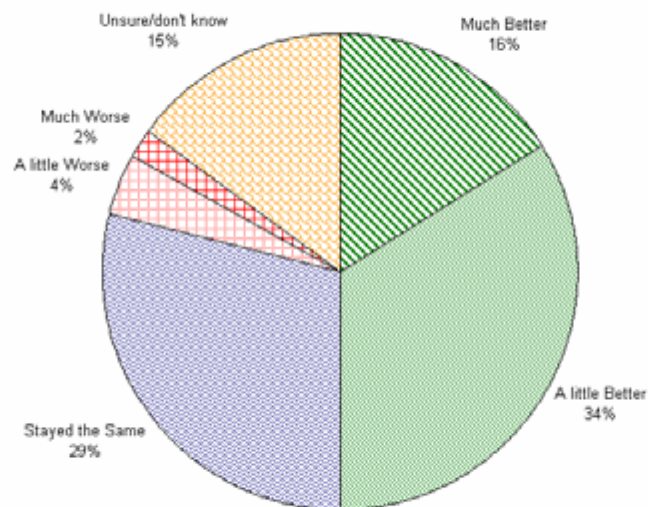
## 4.6 Fencing off Areas of Native Bush or Wetland on Private Property

Rural residents were asked whether they thought that *fencing off areas of native bush or wetland on private property* had become better, worse or stayed the same in the last few years.

*Note: In 2006 this question was only asked of rural respondents. Consequently comparisons with results from previous periods (when all respondents were asked this question) should be made with caution. In 1998 this question was worded as "The protection given to local areas of native bush or wetland". Therefore, comparisons with results from 1998 should also be made with caution.*

### 4.6.1 Overall Result

Half of all rural residents (50%) believed there had been an improvement over recent years in the fencing off of areas of native bush or wetland on private property (16% *much better*, 34% *a little better*), while 29% of residents thought there had been no change in recent years. In contrast, only a few residents noted a deterioration in the fencing off of areas of native bush/wetlands on private property (2% *much worse*, 4% *a little worse*).



Base: Rural residents only (weighted sample n=237)

**Figure 4-14: Perceptions of Change in Fencing off Areas of Native Bush or Wetland on Private Property**

### 4.6.2 Comparison with Previous Years

Compared to the 2003 measure, there are significantly more residents rating the fencing off of native bush/wetlands on private property as having improved over the last few years (total better up from 43% in 2003 to 50% in 2006). The proportion of residents who believed that fencing off had remained relatively unchanged over the last few years has also increased significantly from the previous measure – up from 21% in 2003 to 29% in 2006.

The other notable change is the significant increase in the proportion of residents expressing an opinion on this environment issue – the proportion of *unsure* and *don't know* responses declining from 29% in 2003 to 15% in 2006 (this decline most likely a result of only asking this question of rural residents in 2006).

**Table 4-4: Perceptions of Changes in Fencing off Areas of Native Bush or Wetland on Private Property 1998, 2000, 2003, 2006**

	1998*	2000	2003	2006	Change 98-06	Change 03-06
	%	%	%	%		
Much better	11	8	14	16	+5	+2
A little better	43	25	29	34	-9	+5
<b>Total Better</b>	<b>54</b>	<b>33</b>	<b>43</b>	<b>50</b>	<b>-4</b>	<b>+7</b>
Stayed the same	22	29	21	29	+7	+8
A little worse	6	3	5	4	-2	-1
Much worse	1	1	2	2	+1	0
<b>Total Worse</b>	<b>7</b>	<b>4</b>	<b>7</b>	<b>6</b>	<b>-1</b>	<b>-1</b>
Unsure/don't know	17	34	29	15	-2	-14

Base (respondents)

1037

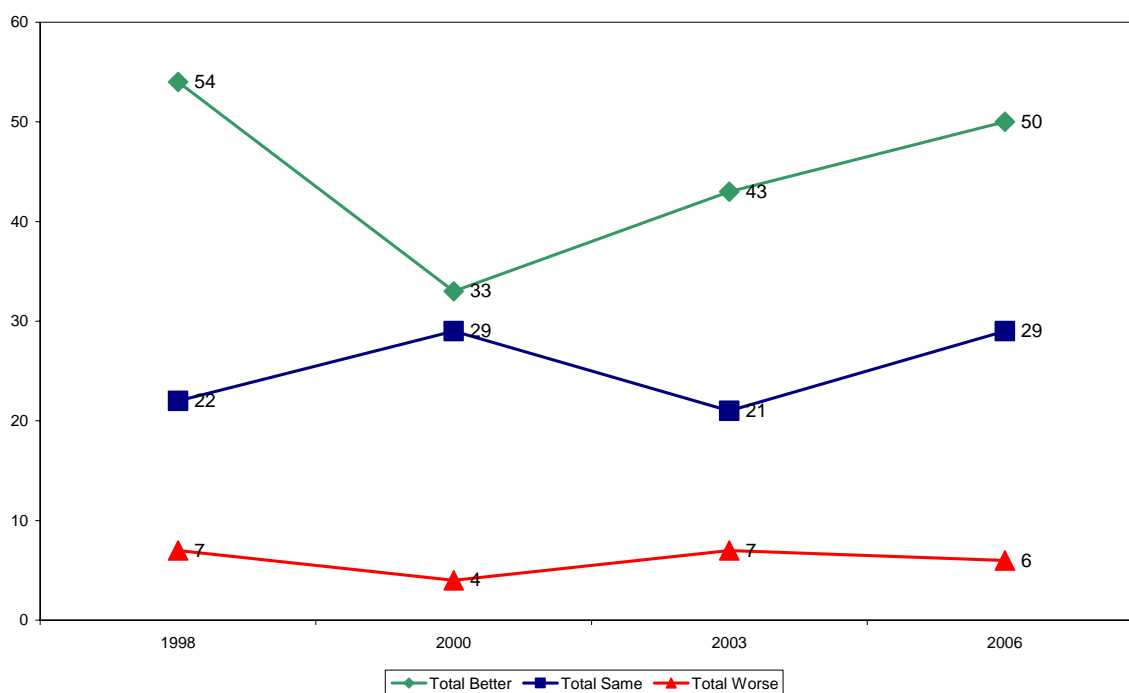
1873

359

237\*

\* Rural respondents only

This trend is shown below in Figure 4.15.



Note: Rural residents only (weighted sample n=237) in 2006

**Figure 4-15: Perceptions of Changes in Fencing off Areas of Native Bush or Wetland on Private Property - 1998, 2000, 2003, 2006**

### 4.6.3 Demographic Variation

Those significantly more likely (than the regional average) to consider that the fencing off areas of native bush or wetland on private property had **got better** were those:

- working in farming occupations (64%)
- working full-time (55%).

Those more likely to consider that the fencing off areas of native bush or wetland on private property had **got worse** over recent years were those:

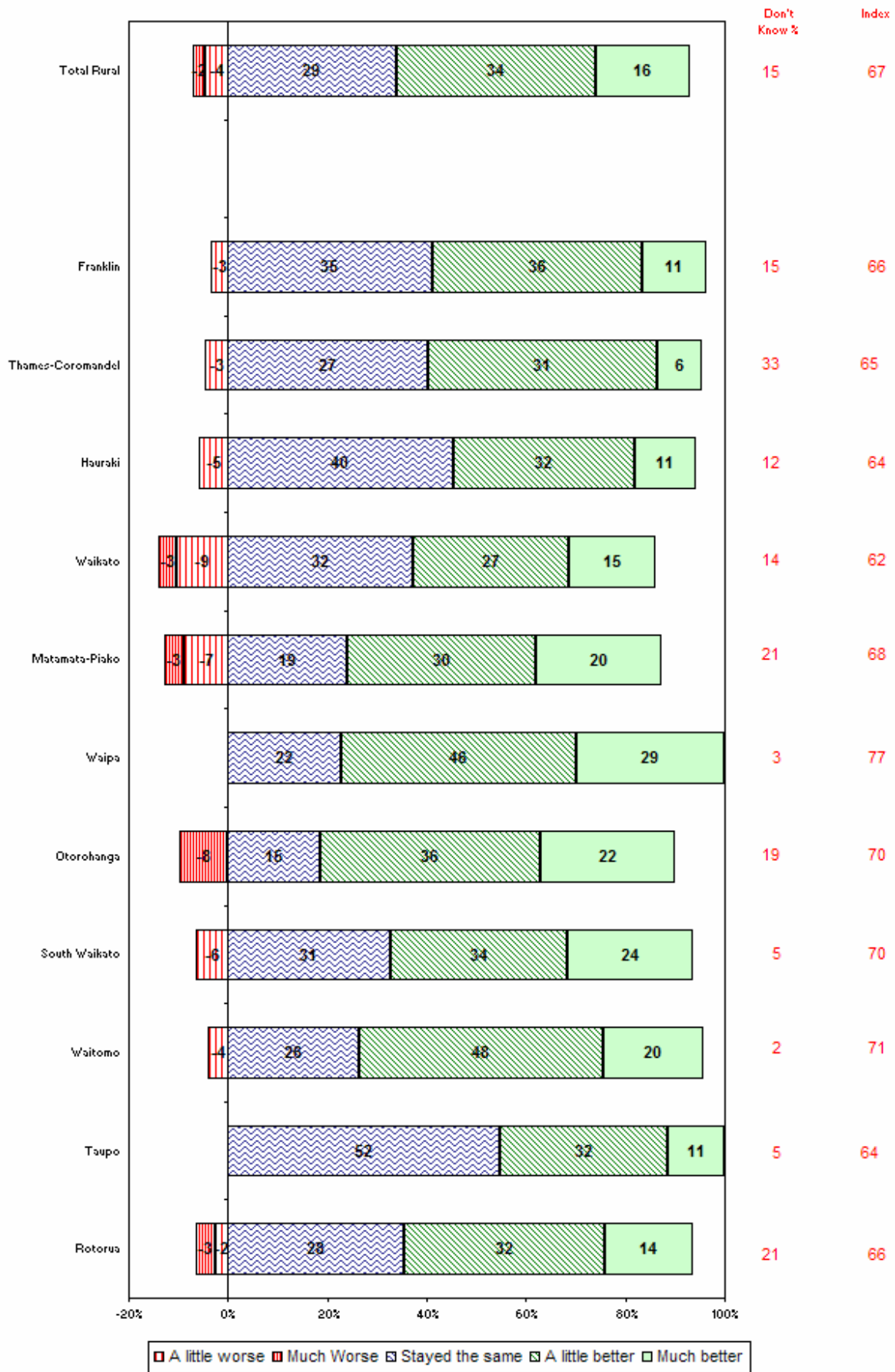
- with Maori ancestry (14%).

#### 4.6.4 Geographic Variation

When considered by territorial authority those who were more likely to consider that the fencing off areas of native bush or wetland on private property had **got better** were:

- living in Waipa (75%) or Waitomo (68%).

No particular territorial authority's residents were identified as being more likely to consider that fencing off areas of native bush or wetland on private property had deteriorated over the past few years.



Base: Rural residents only (weighted sample n=237)

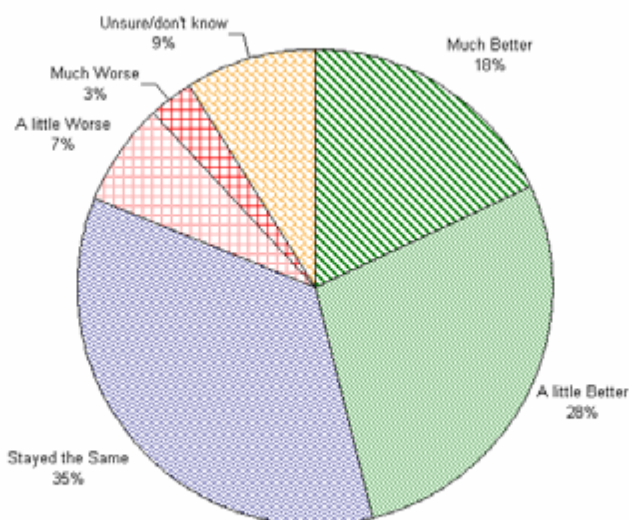
**Figure 4-16: Perceptions of Changes in Fencing off Areas of Native Bush or Wetland on Private Property by Territorial Authority**

## 4.7 Fencing Off Streams, Rivers and Lakes

Rural residents were asked whether they thought that *fencing off of streams, rivers and lakes* had become better, worse or stayed the same in the last few years.

### 4.7.1 Overall Result

The greatest proportion of rural residents (46%) believed that the fencing off of streams, rivers and lakes was better than it had been in recent years (18% *much better*, 28% *a little better*). An additional 35% of residents thought there had been no change in recent years. In contrast, only one in ten respondents note a deterioration in the fencing off of streams, rivers and lakes (3% *much worse*, 7% *a little worse*).



Base: Rural residents only (weighted sample n=237)

Figure 4-17: Perceptions of Change in Fencing Off of Streams, Rivers and Lakes

### 4.7.2 Comparison with Previous Years

This question was asked for the first time in 2006. Consequently, no comparative results are available.

### 4.7.3 Demographic Variation

Those significantly more likely (than the regional average) to consider that fencing off streams, rivers and lakes had **got better** were those:

- working in farming occupations (63%)
- who are male (54%)
- working full-time (53%)
- with no Maori ancestry (51%) or New Zealand European(50%).

Those more likely to consider that fencing off streams, rivers and lakes had **got worse** over recent years were those:

- with an annual household income of less than \$30,000 (22%)
- who attended secondary school but did not achieve any qualifications (22%)
- with Maori ancestry (19%).

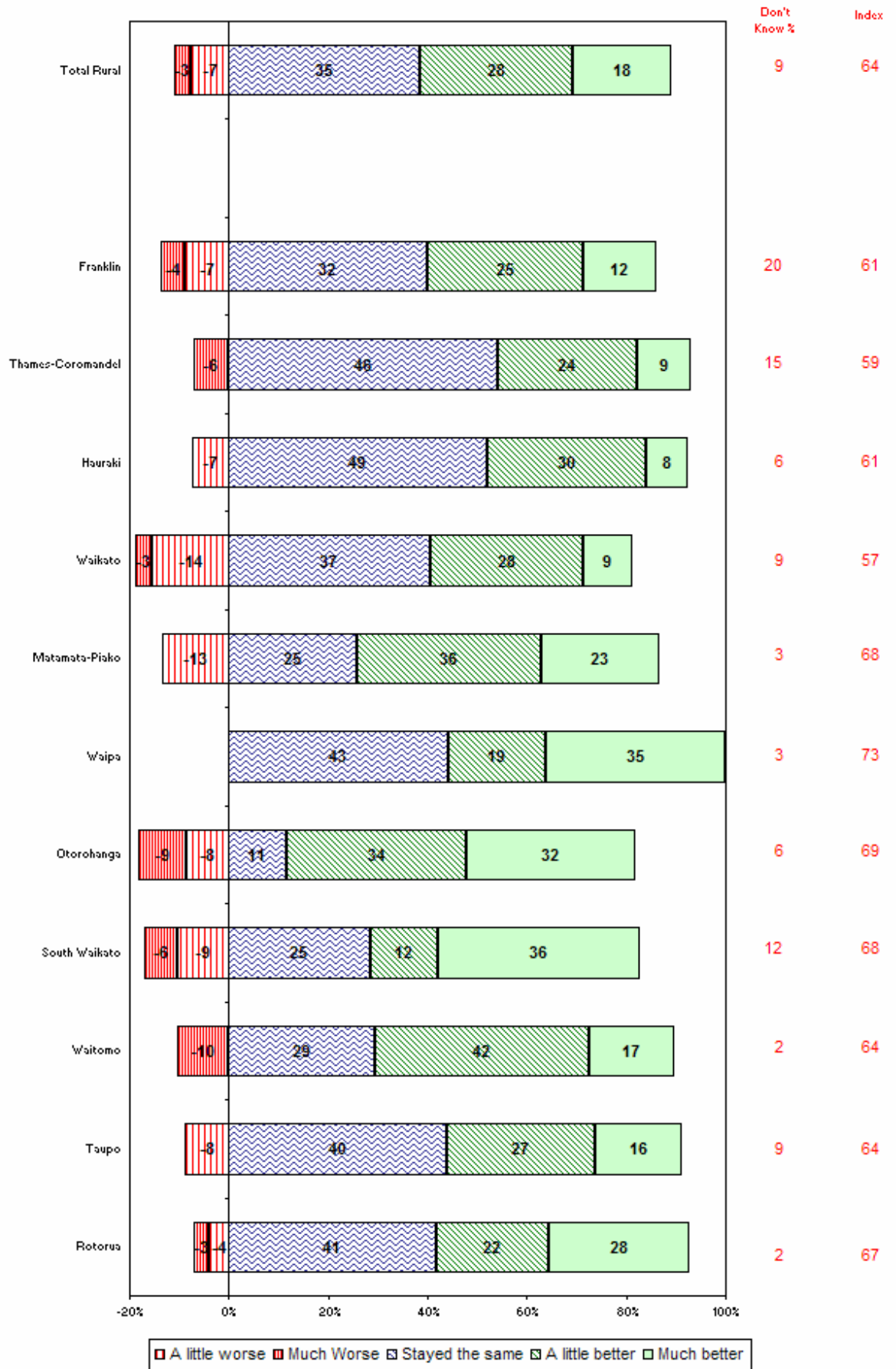
#### 4.7.4 Geographic Variation

When considered by territorial authority those significantly more likely to consider that fencing off streams, rivers and lakes had **got better** over recent years were:

- living in Otorohanga (66%).

No particular territorial authority's residents were identified as being more likely to consider that fencing off streams, rivers and lakes had **got worse** over the past few years.





Base: Rural residents only (weighted sample n=237)

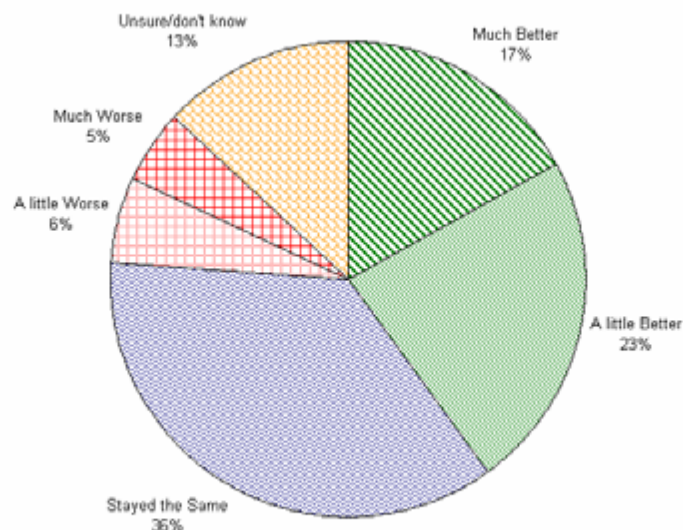
**Figure 4-18: Perceptions of Changes in Fencing Off of Streams, Rivers and Lakes by Territorial Authority**

## 4.8 Effluent is Disposed of According to the Rules

Rural residents were asked whether they thought that *the disposal of effluent according to the rules* had become better, worse or stayed the same in the last few years.

### 4.8.1 Overall Result

Two in five rural residents (40%) believed that effluent is now being disposed of according to the rules more often than it has been in recent years (17% *much better*, 23% *a little better*). Just over a third (36%) believed the legal disposal of effluent had been occurring at the same rate in recent years, while one in ten respondents (11%) believed it was now worse (5% *much worse*, 6% *a little worse*). Thirteen per cent of respondents were unsure or did not know.



Base: Rural residents only (weighted sample n=237)

**Figure 4-19: Perceptions of Change in Effluent Being Disposed of According to the Rules**

### 4.8.2 Comparison with Previous Years

This question was asked for the first time in 2006. Consequently, no comparative results are available.

### 4.8.3 Demographic Variation

Those significantly more likely (than the regional average) to consider that the disposal of effluent according to the rules had **got better** over the last few years were those:

- working in farming occupations (66%)
- who are male (52%)
- working full-time (49%)
- New Zealand European (43%) or with no Maori ancestry (43%).

There are no significant differences among those who consider that the legal disposal of effluent had **got worse** over the last few years.

#### 4.8.4 Geographic Variation

When considered by territorial authority those more to consider that the legal disposal of effluent had **got better** over the last few years were those:

- living in Otorohanga (59%).

No particular territorial authority residents were identified as being more likely to consider that the disposing of effluent according to the rules had **got worse** over the last few years.



Base: Rural residents only (weighted sample n=237)

**Figure 4-20: Perceptions of Changes in Effluent Being Disposed of According to the Rules by Territorial Authority**

## 4.9 Cyclist-Friendly Roding in Local Area

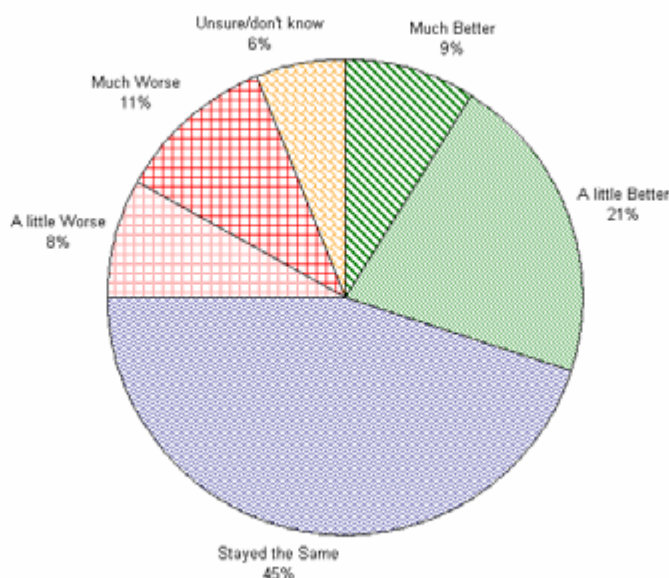
Urban residents were asked whether they thought that *cyclist-friendly roding in your local area* had become better, worse or stayed the same in the last few years.

*Note: The wording of this question has been slightly changed since it was asked in 1998 ("The ease of cycling in your local area"). Consequently, care should be taken when comparing results over time.*

### 4.9.1 Overall Result

The largest proportion of respondents (45%) believed that roding in their local area was neither more nor less cyclist-friendly than it had been in recent years. Three out of ten respondents (30%) thought that their local roads were now more cyclist-friendly than they were a few years ago (9% *much better*, 21% *a little better*), while one in five respondents (19%) believed their local roads were less cyclist-friendly (11% *much worse*, 8% *a little worse*).

**Figure 4.21:**



Base: All urban residents (weighted n=763)

**Figure 4-21: Perceptions of Change in Cyclist-Friendly Roding in Local Area**

### 4.9.2 Comparison with Previous Years

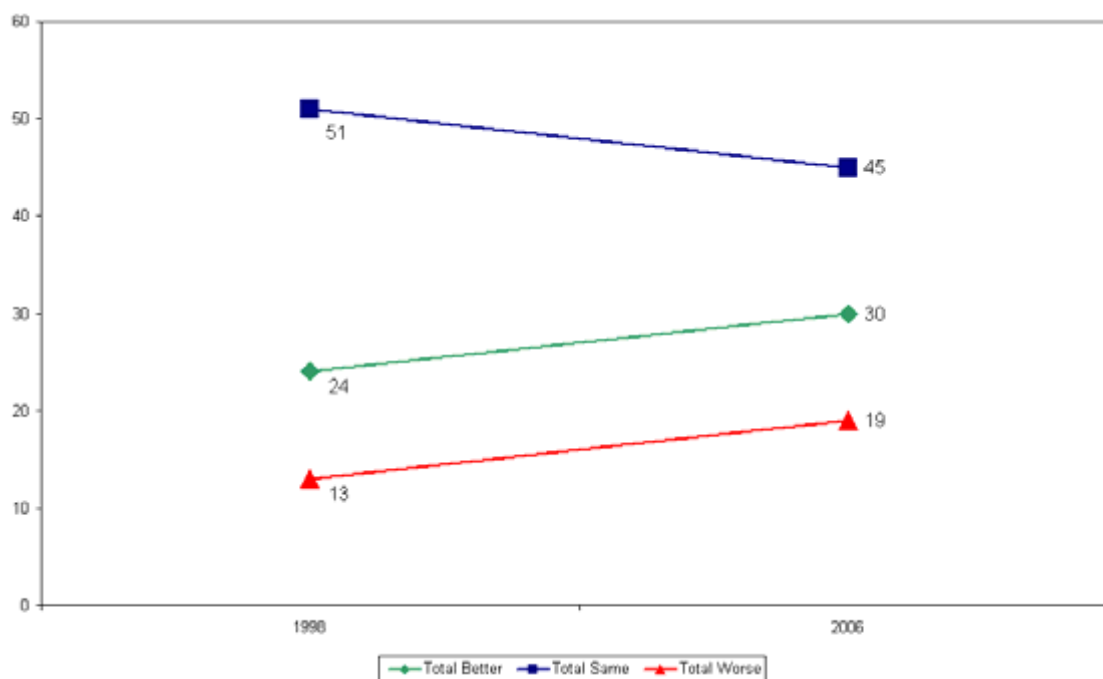
Perceptions of the cyclist-friendly nature of roding in the region have become more polarised since 1998. The proportion of residents who believed that the roding had recently become more cyclist-friendly has increased significantly since 1998 (total better up from 24% in 1998 to 30% in 2006), while the proportion who believed the region's roads were now less cyclist-friendly has also increased significantly (total worse up from 13% in 1998 to 19% in 2006).

**Table 4-5: Perceptions of Change in Cyclist-Friendly Rooding in Local Area 1998, 2006:**

	1998 %	2006 %	Change 98-06
Much better	5	9	+4
A little better	19	21	+2
<b>Total better</b>	<b>24</b>	<b>30</b>	<b>+6</b>
Stayed same	51	45	-6
A little worse	9	8	-1
Much worse	4	11	+7
<b>Total worse</b>	<b>13</b>	<b>19</b>	<b>+6</b>
Unsure/don't know	12	6	-6
<i>Base (respondents)</i>	671*	763*	

\* Urban respondents only

This trend is shown below in Figure 4.22.



Base: Urban respondents only

**Figure 4-22: Perceptions of Change in Cyclist-Friendly Rooding in Local Area 1998, 2006**

### 4.9.3 Demographic Variation

Those significantly more likely (than the regional average) to consider that rooding **is more cyclist-friendly** in their local area than in the past were those:

- aged 18 to 19 years (49%) or 20 to 29 years (40%)
- Maori (41%) or with Maori ancestry (36%).

Those more likely to consider that rooding **is less cyclist-friendly** in their local area than in the past were those:

- with a trade certificate (34%).

### 4.9.4 Geographic Variation

Territorial authority residents more likely to consider that rooding in their local area had become **more cyclist-friendly** over the past few years were those:

- living in Taupo (43%) or Hamilton (40%).

Those significantly more likely to say it had **stayed the same** were:

- living in Matamata-Piako (68%) or living in the districts (as opposed to Hamilton city) (51%).

No particular territorial authority residents were identified as being more likely to consider that roading in their local area had become **less cyclist-friendly** over the past few years.



Base: Urban residents only (weighted sample n=763)

**Figure 4-23: Perceptions of Changes in Cyclist-Friendly Roading in Local Area by Territorial Authority**

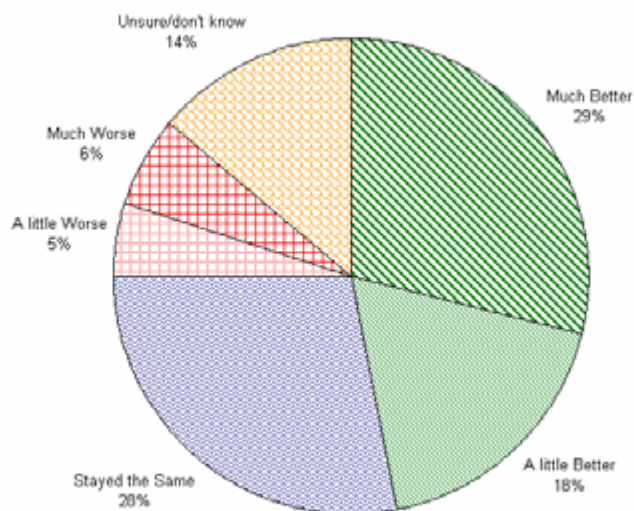


## 4.10 Public Transport Availability

Urban residents were asked whether they thought that *the public transport available in your area* had become better, worse or stayed the same in the last few years.

### 4.10.1 Overall Result

Just less than half of all Waikato urban residents surveyed (47%) believed that the availability of public transport is better than it has been in the past (29% *much better*, 18% *a little better*). Twenty-eight per cent believed that public transport availability had stayed the same, while 11% believed that it is worse (6% *much worse*, 5% *a little worse*). One in seven respondents (14%) said they were unsure or didn't know.



Base: All urban residents (weighted sample n=763)

**Figure 4-24: Perceptions of Change in Public Transport Availability**

### 4.10.2 Comparison with Previous Years

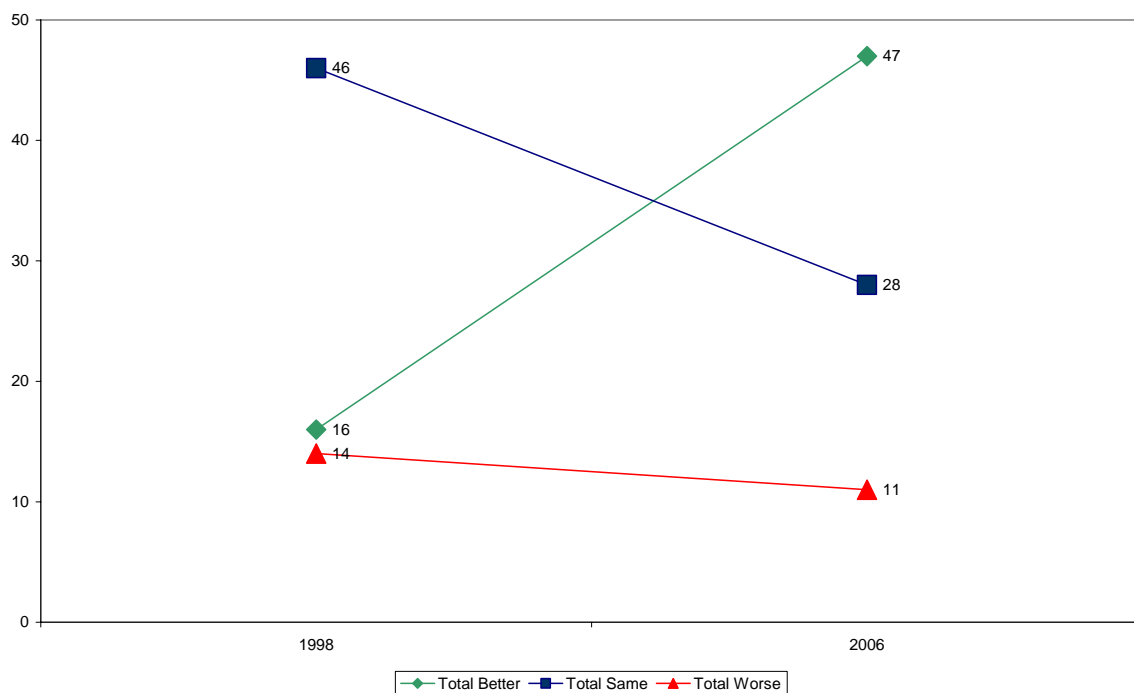
The proportion of residents stating that public transport availability had improved in the last few years has increased significantly since 1998 (total better up from 16% in 1998 to 47% in 2006). In contrast, the proportion who believed that the availability of public transport in their local area had got worse recently has declined slightly (total worse down from 14% in 1998 to 11% in 2006).

**Table 4-6: Perceptions of Change in Public Transport Availability 1998, 2006**

	1998 %	2006 %	Change 98-06
Much better	6	29	+23
A little better	10	18	+8
<b>Total better</b>	<b>16</b>	<b>47</b>	<b>+31</b>
Stayed same	46	28	-18
A little worse	9	5	-4
Much worse	5	6	+1
<b>Total worse</b>	<b>14</b>	<b>11</b>	<b>-3</b>
Unsure/don't know	23	14	-9
<i>Base (respondents)</i>	<i>671*</i>	<i>763*</i>	

\* Urban respondents only

This trend is shown below in Figure 4.25.



Base: Urban respondents only

**Figure 4-25: Perceptions of Change in Public Transport Availability 1998, 2006**

### 4.10.3 Demographic Variation

Those significantly more likely (than the regional average) to consider that the public transport available in their area had **got better** were those:

- who are students (81%)
- of Asian/Indian ethnicity (65%)
- aged 20 to 29 years (58%) or 30 to 39 years (55%)
- working full-time (53%)
- with a tertiary qualification (52%).

Those more likely to consider the public transport available in their area had **got worse** were those:

- who are retired (16%)
- who are female (14%).

#### 4.10.4 Geographic Variation

Territorial authority residents more likely to consider that the public transport available in their area has **got better** over the past few years were those:

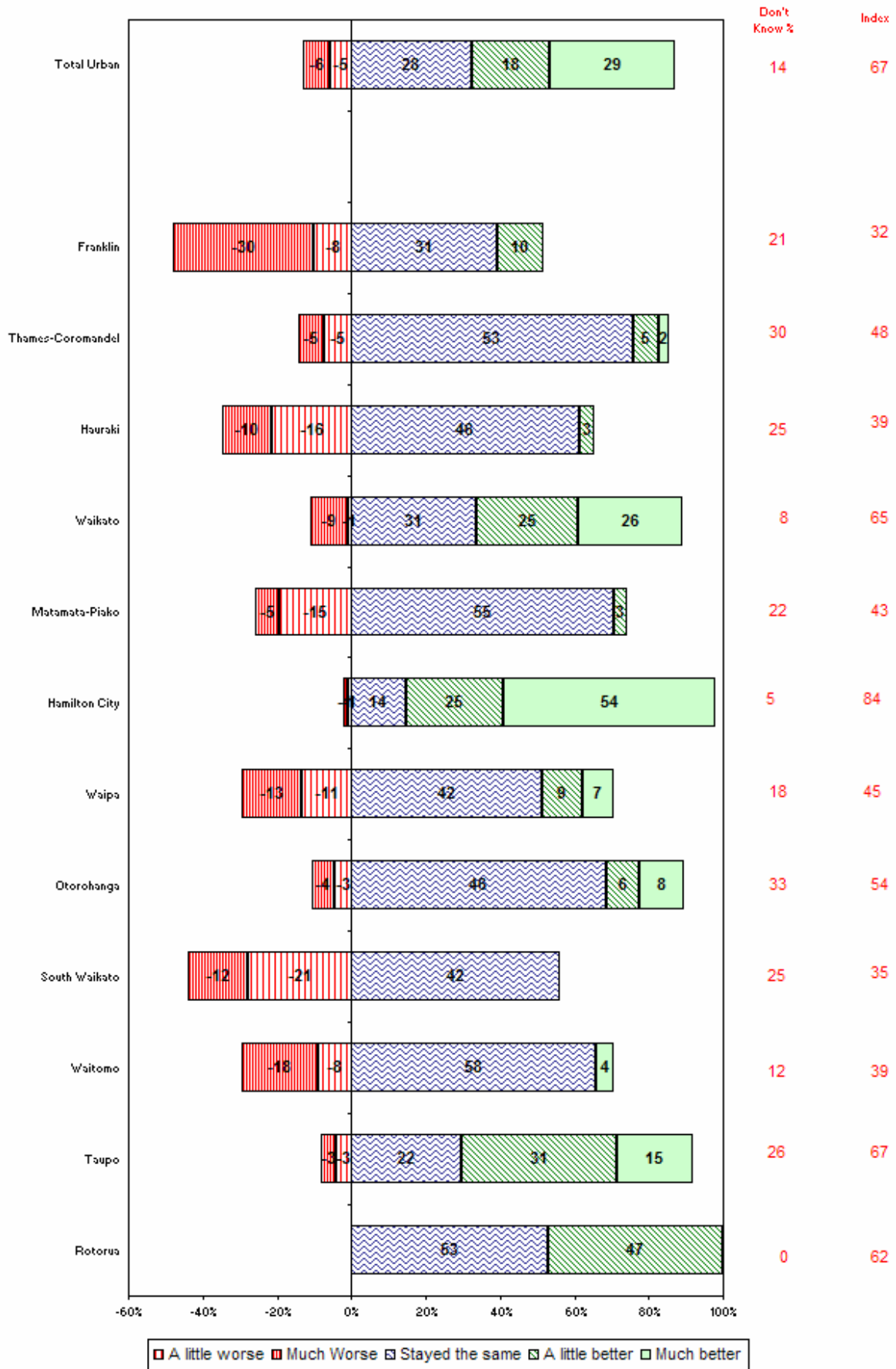
- living in Hamilton (79%).

Those who were more likely to say it has **stayed the same** were:

- living in Waitomo (58%), Matamata-Piako (55%), Thames-Coromandel (53%), Waipa (42%) or living in the districts (as opposed to Hamilton) (40%).

Those who were more likely to consider that the public transport available in their area has **got worse** over the past few years were:

- living in South Waikato (33%), Waitomo (26%) or Waipa (24%)
- those living in the districts (as opposed to Hamilton) (18%).



Base: Urban residents only (weighted sample n=763)

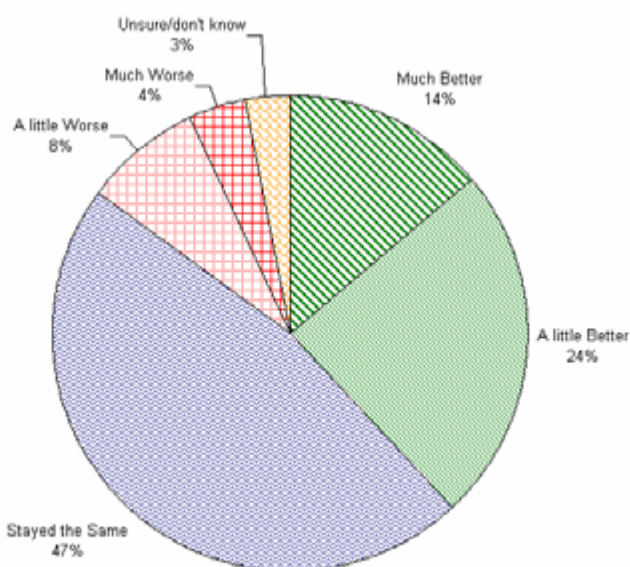
**Figure 4-26: Perceptions of Changes in Public Transport Availability by Territorial Authority**

## 4.11 Natural Amenities of Local Town or City

Urban residents were asked whether they thought that *the natural amenities, such as open space, of your local town or city* had become better, worse or stayed the same in the last few years.

### 4.11.1 Overall Result

The largest proportion of respondents (47%) thought that the natural amenities of their local town or city had stayed the same in the last few years, while 38% believed that they had improved (14% much better, 24% a little better). In contrast 12% of respondents thought that their local natural amenities had deteriorated (4% much worse, 8% a little worse).



Base: All urban residents (weighted n=763)

Figure 4-27: Perceptions of Change in Natural Amenities of Local Town or City

### 4.11.2 Comparison with Previous Years

This question was asked for the first time in 2006. Consequently, no comparative results are available.

### 4.11.3 Demographic Variation

Those significantly more likely (than the regional average) to consider that the natural amenities, such as open space, of their local town or city had **got better** were those:

- with an annual household income of more than \$150,000 (56%)
- aged 60 years or over (44%).

Those more likely to consider that the natural amenities, such as open space, of their local town or city had **got worse** were:

- aged 18 to 19 years (44%)
- those who had attended secondary school but did not achieve any qualifications (19%)
- Maori (18%)
- those with an annual household income of \$60,001 to \$90,000 (16%).

#### 4.11.4 Geographic Variation

No particular territorial authority residents were identified as being more likely to consider that the natural amenities, such as open space, in their local town or city had improved or deteriorated over the past few years.

Those more likely to say that this had **stayed the same** were:

- living in Waipa (59%) or living in the districts (as opposed to Hamilton) (51%).



Base: Urban residents only (weighted sample n=763)

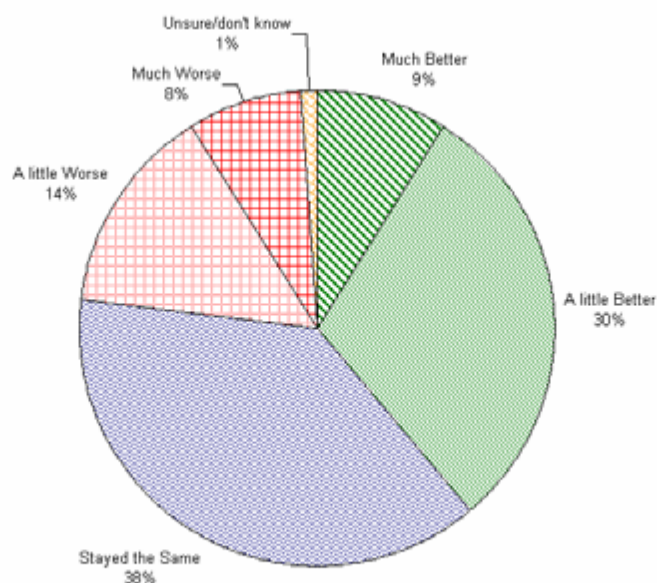
**Figure 4-28: Perceptions of Changes in Natural Amenities of Local Town or City by Territorial Authority**

## 4.12 Overall State of Local Environment

Residents were asked whether they thought *the overall state of your local environment* had generally become better, worse or stayed the same in the last few years.

### 4.12.1 Overall Result

Waikato region residents had mixed views on the overall state of the local environment, and how it had changed over recent years. While two out of five residents (39%) considered that the overall state of the local environment had improved over the last few years (9% *much better*, 30% *a little better*); just over one in five (22%) perceived it had recently deteriorated (8% *much worse*, 14% *a little worse*). Over a third of residents (38%) thought the state of the local environment had stayed the same.



Base: All residents (n=1000)

**Figure 4-29: Perceptions of Change in Overall State of Local Environment**

### 4.12.2 Comparison with Previous Years

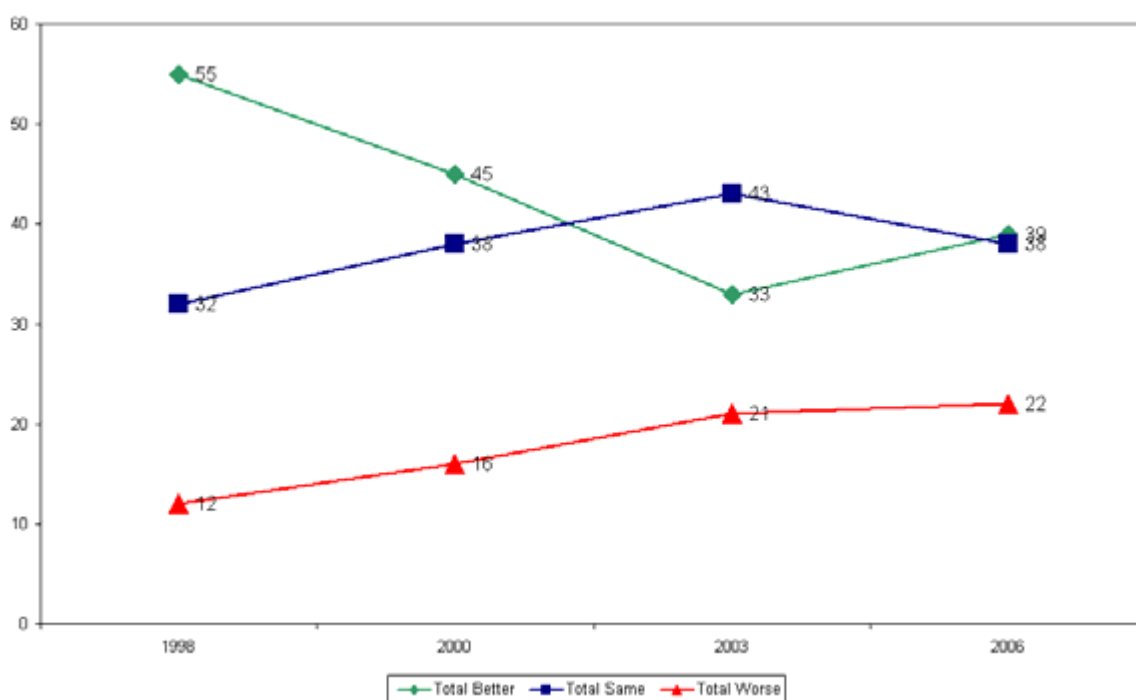
Reversing the negative change in ratings between 2000 and 2003, the results for 2006 show a significant increase in the proportion of residents rating the overall state of their local environment as better (total better up from 33% in 2003 to 39% in 2006). The proportion of residents who believed the local environment had stayed the same has declined since 2003 – down from 43% in 2003, to 38% (the same as in 2000). The proportion of residents stating the local environment had deteriorated over recent years has remained stable since 2003 (total worse up from 21% in 2003 to 22% in 2006). Comparative to the 1998 benchmark however, those saying the overall state of their local environment was better has fallen significantly (down from 55% to 39%), while those saying it had got worse has increased significantly (up from 12% in 1998 to 22% in 2006).



**Table 4-7: Perceptions of Changes in Overall State of Local Environment, 1998, 2000, 2003, 2006**

	1998 %	2000 %	2003 %	2006 %	Change 98-06	Change 03-06
Much better	7	7	7	9	+2	+2
A little better	48	38	26	30	-18	+4
<b>Total Better</b>	<b>55</b>	<b>45</b>	<b>33</b>	<b>39</b>	<b>-16</b>	<b>+6</b>
Stayed the same	32	38	43	38	+6	-5
A little worse	10	13	14	14	+4	0
Much worse	2	3	7	8	+6	+1
<b>Total Worse</b>	<b>12</b>	<b>16</b>	<b>21</b>	<b>22</b>	<b>+10</b>	<b>+1</b>
Unsure/don't know	1	1	3	1	-	-2
<i>Base (respondents)</i>	1037	1873	359	1000		

This trend is shown below in Figure 4.30.



**Figure 4-30: Perceptions of Changes in Overall State of Local Environment, 1998, 2000, 2003, 2006**

### 4.12.3 Demographic Variation

Those significantly more likely (than the regional average) to think that the overall state of the local environment had **got better** were:

- working in farming occupations (54%)
- Maori (48%)
- those with an annual household income of \$30,001 to \$60,000 (43%).

Those more likely to think that the overall state of the local environment had **stayed the same** were those:

- with no Maori ancestry (41%).

Those more likely to think that the overall state of the local environment had **got worse** were those:

- who are students (37%)
- with an annual household income of \$60,001 to \$90,000 (30%)

- aged 40 to 49 years (28%)
- with Maori ancestry (28%)
- with a trade certificate (34%) or tertiary qualification (25%)
- who are male (25%).

#### 4.12.4 Geographic Variation

When considered by territorial authority and by urban and rural residents, those who were more likely to consider that the overall state of their local environment had **got better** were:

- living in South Waikato (55%).

Those who were more likely to consider the overall state of their local environment had **got worse** were:

- living in Taupo (36%).



Figure 4-31: Perceptions of Changes in Overall State of the Local Environment by Urban/Rural and Territorial Authority

## 5 Level of Concern on Environmental Issues

This section examines respondents' level of concern in relation to a range of environmental issues currently affecting the region. Residents were asked to rate each statement using a five point scale, specifying whether they were very concerned, slightly concerned, not very concerned, not concerned at all, or neither concerned nor unconcerned with each issue.

### Key findings are:

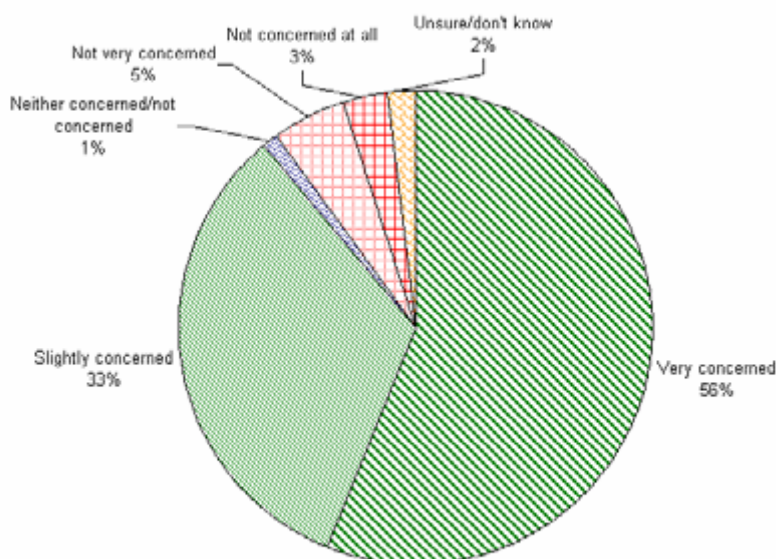
- Compared with 2000, levels of concern (*slightly concerned/very concerned*) with all environmental issues have increased significantly. This increase is most marked for the **loss of the natural character of the region's beaches through development** (total concerned up from 65% to 79%) and **the state of native bush and wetlands on private property** (total concerned up from 52% to 62%). The share of surveyed residents expressing concern with the **spread of cities/towns across farmland** has increased from 62% in 2000 to 69% in 2006.
- Providing further evidence of the importance of water pollution as a current and future environmental issue for the Waikato region (see Section 3), respondents' express greatest concern on water pollution issues. Levels of concern are greatest for water pollution **from industry** (89% either *slightly* or *very concerned*) and water pollution from **towns and cities** (87%). Three-quarters of residents (78%) express concern with water pollution **from farms**, with 46% being very concerned.
- Four in five residents (79%) express concern with the **loss of the natural character of beaches through development**.
- Of the seven environmental aspects questioned on, residents have mixed opinions and levels of concern with the **construction of rock and concrete seawalls to protect property from long term coastal erosion** - 54% *slightly concerned/very concerned*, while 40% are *not very concerned* or *not concerned at all*.

## 5.1 Water Pollution from Industry

Residents were asked how concerned they were with *water pollution from industry*.

### 5.1.1 Overall Result

Level of concern with water pollution from industry was high among Waikato region residents, almost all (89%) expressing some concern with this environmental issue (56% *very concerned*, 33% *slightly concerned*). In contrast, only 8% of residents reported that water pollution from industry was not of concern to them (3% *not concerned at all*, 5% *not very concerned*).



Base: All respondents (n=1000)

**Figure 5-1: Level of Concern with Water Pollution from Industry**

### 5.1.2 Comparison with Previous Years

The level of concern with water pollution from industry has increased significantly since 2000 (total concerned up from 80% to 89%). The strength of concern in relation to this issue has also increased significantly over the last six years, with the proportion of residents *very concerned* about water pollution from industry having increased from 44% in 2000 to 56% in 2006.

**Table 5-1: Level of Concern with Water Pollution from Industry 2000, 2006**

	2000 %	2006 %	Change 00-06
Not concerned at all	3	3	-
Not very concerned	10	5	-5
<b>Total Unconcerned</b>	<b>13</b>	<b>8</b>	<b>-5</b>
Neither concerned nor unconcerned	4	1	-3
Slightly concerned	36	33	-3
Very concerned	44	56	+12
<b>Total Concerned</b>	<b>80</b>	<b>89</b>	<b>+9</b>
Unsure/don't know	3	2	-1
<i>Base (respondents)</i>	1873	1000	

### 5.1.3 Demographic Variation

Those significantly more likely (than the regional average) to be **concerned** about water pollution from industry were:

- Maori (98%) or those with Maori ancestry (95%), aged 40 to 49 years (94%), working full-time (92%) or in non-farming rural occupations (92%).

Those more likely to be **not concerned** were those:

- who are retired (16%/aged 60 years or over (14%) or with no Maori ancestry (10%).

### 5.1.4 Geographic Variation

When considered by territorial authority and by urban and rural locations, those who were more likely to be **concerned** about water pollution from industry were:

- living in Hamilton (94%)

Those who were more likely to be **neither concerned nor unconcerned** were:

- living in Waikato (3%).

Those who were more likely to be **not concerned** were:

- living in Thames-Coromandel (17%).



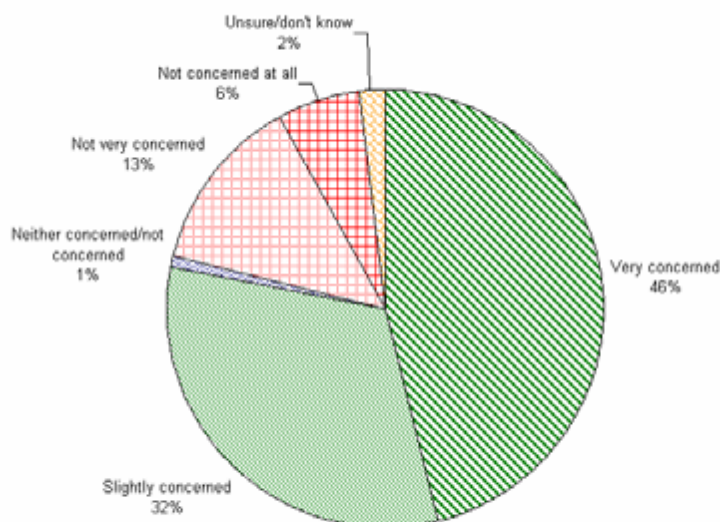
**Figure 5-2: Level of Concern with Water Pollution from Industry by Urban/Rural and Territorial Authority**

## 5.2 Water Pollution from Farmland

Residents were asked how concerned they were with *water pollution from farmland*.

### 5.2.1 Overall Result

Results suggest that water pollution from farmland is an environmental issue of concern to many Waikato region residents, 78% reporting being *very concerned* (46%) or *slightly concerned* (32%) about this issue. In contrast, one in five residents (19%) stated that water pollution from farmland was not of concern to them (6% *not concerned at all*; 13% *not very concerned*).



Base: All respondents (n=1000)

**Figure 5-3: Level of Concern with Water Pollution from Farmland**

### 5.2.2 Comparison with Previous Years

As with concern with water pollution from industry, the level of concern with water pollution from farmland has increased significantly since 2000 (total concerned up from 71% to 78%). The strength of concern in relation to this issue has also increased significantly over the last six years, the proportion of residents *very concerned* about water pollution from farmland having increased from 35% in 2000 to 46% in 2006.

**Table 5-2: Level of Concern with Water Pollution from Farmland 2000, 2006**

	2000 %	2006 %	Change 00-06
Not concerned at all	5	6	+1
Not very concerned	13	13	-
<b>Total Unconcerned</b>	<b>18</b>	<b>19</b>	<b>+1</b>
Neither concerned nor unconcerned	5	1	-4
Slightly concerned	36	32	-4
Very concerned	35	46	+11
<b>Total Concerned</b>	<b>71</b>	<b>78</b>	<b>+7</b>
Unsure/don't know	5	2	-3
<i>Base (respondents)</i>	1873	1000	



### 5.2.3 Demographic Variation

Those significantly more likely (than the regional average) to be **concerned** about water pollution from farmland were those:

- with an annual household income of \$90,001 to \$150,000 (86%)
- aged 40 to 49 years (85%)
- with a tertiary qualification (82%).

Those more likely to be **not concerned** were those:

- of Asian/Indian ethnicity (43%)
- aged 20 to 29 years (27%).

### 5.2.4 Geographic Variation

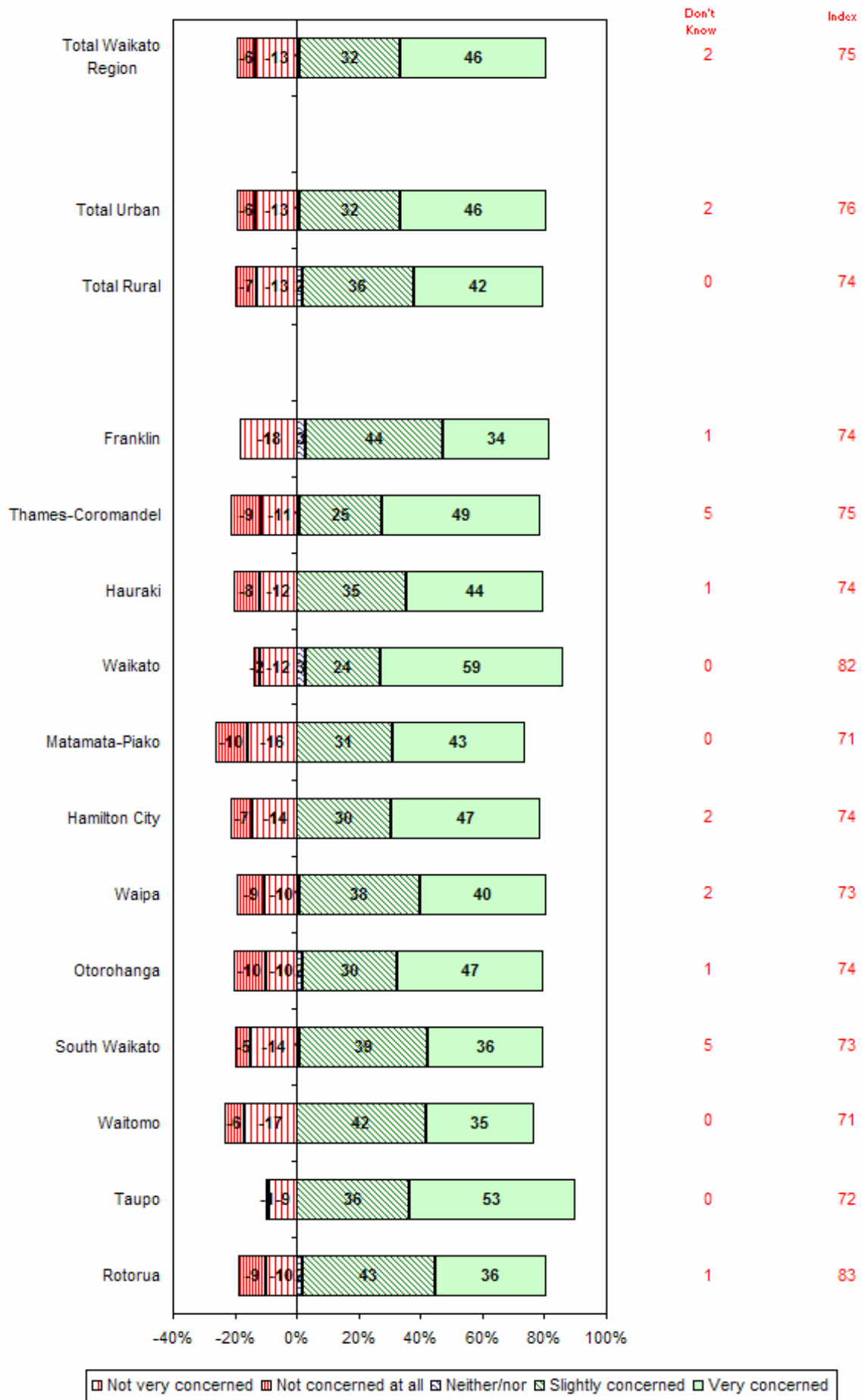
When considered by territorial authority and by urban and rural locations, those who were more likely to be **concerned** about water pollution from farmland were:

- living in Taupo (89%).

Those significantly more likely to be **neither concerned nor unconcerned** were:

- living in Waikato (3%), Rotorua (2%) or in the districts (as opposed to Hamilton) (1%).

No particular territorial authority or urban/rural location residents were identified as being more likely to be **not concerned** about water pollution from farmland.



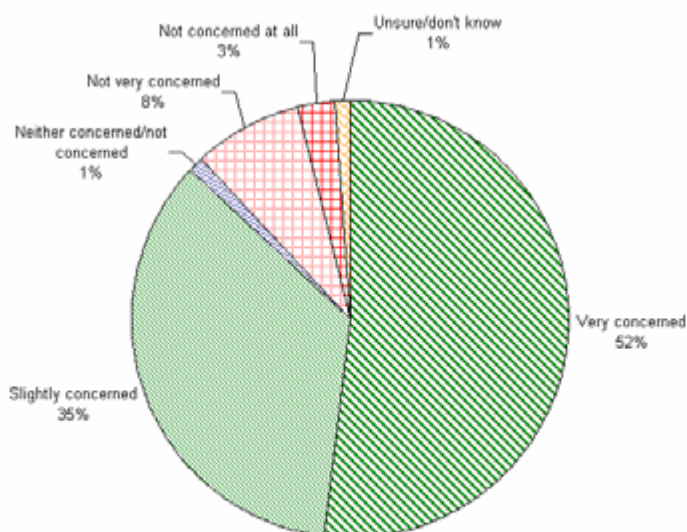
**Figure 5-4: Level of Concern with Water Pollution from Farmland by Urban/Rural and Territorial Authority**

## 5.3 Water Pollution from Towns and City Areas

Residents were asked how concerned they were with *water pollution from towns and city areas*.

### 5.3.1 Overall Result

Many Waikato region residents (87%) were concerned with water pollution from towns and cities (52% *very concerned* and 35% *slightly concerned*). In contrast, only one in ten residents (11%) noted that this environmental issue was of no concern to them (3% *not concerned at all*; 8% *not very concerned*).



Base: All respondents (n=1000)

**Figure 5-5: Level of Concern with Water Pollution from Towns and City Areas**

### 5.3.2 Comparison with Previous Years

The level of concern with water pollution from towns and cities has increased significantly since 2000 (total concerned up from 80% to 87%). The strength of concern in relation to this issue has also increased significantly over the last six years, more than half of residents (52%) now *very concerned* about water pollution from towns and cities, compared with 43% in 2000.

**Table 5-3: Level of Concern with Water Pollution from Towns and City Areas 2000, 2006**

	2000 %	2006 %	Change 00-06
Not concerned at all	4	3	-1
Not very concerned	9	8	-1
<b>Total Unconcerned</b>	<b>13</b>	<b>11</b>	<b>-2</b>
Neither concerned nor unconcerned	5	1	-4
Slightly concerned	37	35	-2
Very concerned	43	52	+9
<b>Total Concerned</b>	<b>80</b>	<b>87</b>	<b>+7</b>
Unsure/don't know	3	1	-2
<i>Base (respondents)</i>	1873	1000	

### 5.3.3 Demographic Variation

Those significantly more likely (than the regional average) to be **concerned** about water pollution from towns and city areas were:

- Maori (92%)
- aged 40 to 49 years (92%)
- those with tertiary qualifications (90%).
- in non-farming rural occupations (89%).

Those more likely to mention that they were **not concerned** were:

- retired (17%)/aged 60 years or over (17%)
- those with secondary school qualifications (14%)
- NZ European(12%) or with no Maori ancestry (12%).

### 5.3.4 Geographic Variation

When considered by territorial authority and by urban and rural locations, those who were more likely to be **concerned** were those:

- living in Hamilton (94%)

Those significantly more likely to be **neither concerned nor unconcerned** were:

- living in the districts as opposed to Hamilton (1%).

Those significantly more likely to be **not concerned** were those:

- living in the districts (as opposed to Hamilton) (13%).



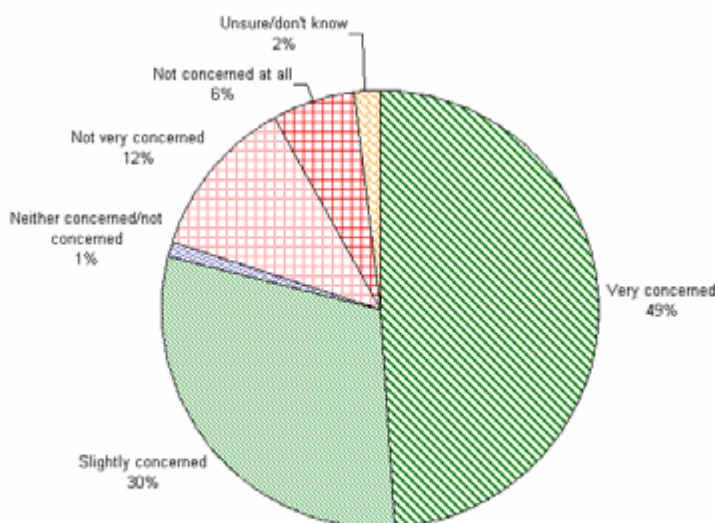
**Figure 5-6: Level of Concern with Water Pollution from Towns and City Areas by Urban/Rural and Territorial Authority**

## 5.4 Loss of Natural Beach Character Through Development

Residents were asked how concerned they were with the *loss of the natural character of the region's beaches through development*.

### 5.4.1 Overall Result

Many Waikato region residents (79%) were concerned with the loss of the natural character of the region's beaches through development (49% *very concerned*, 30% *slightly concerned*). In contrast, only 18% of residents state that the issue of a loss of beach character through development was not of concern to them (6% *not concerned at all*, 12% *not very concerned*, 1% *neither concerned/not concerned*, 12% *not very concerned*).



Base: All respondents (n=1000)

**Figure 5-7: Level of Concern with Loss of Natural Beach Character Through Development**

### 5.4.2 Comparison with Previous Years

The strength of concern with the loss of the natural character of the region's beaches through development has increased significantly since 2000, the proportion of residents stating that they were *concerned* about this issue having increased from 65% to 79% over the last six years. In contrast, around one in five residents (19% in 2000, 18% in 2006) continue to report that this environmental issue is of little or no concern to them.

**Table 5-4: Level of Concern with Loss of Natural Beach Character Through Development - 2000, 2006**

	2000 %	2006 %	Change 00-06
Not concerned at all	6	6	-
Not very concerned	13	12	-1
<b>Total Unconcerned</b>	<b>19</b>	<b>18</b>	<b>-1</b>
Neither concerned nor unconcerned	9	1	-8
Slightly concerned	30	30	-
Very concerned	35	49	+14
<b>Total Concerned</b>	<b>65</b>	<b>79</b>	<b>+14</b>
Unsure/don't know	6	2	-4
<i>Base (respondents)</i>	1873	1000	

### 5.4.3 Demographic Variation

Those significantly more likely (than the regional average) to mention that they were **concerned** about the loss of the natural character of the region's beaches through development were those:

- aged 40 to 49 years (84%)
- who are female (82%)
- with a tertiary qualification (82%)
- in non-farming rural occupations (81%).

Those more likely to mention that they are **not concerned** were those:

- working in farming occupations (30%)
- who are male (21%).

### 5.4.4 Geographic Variation

When considered by territorial authority and by urban and rural locations, those who were more likely to be **concerned** about the loss of the natural character of the region's beaches through development were those:

- living in Thames-Coromandel (89%)

When considered by territorial authority and by urban and rural locations, those who were more likely to be **not concerned** were those:

- living in Waipa (25%).



**Figure 5-8: Level of Concern with Loss of Natural Beach Character Through Development by Urban/Rural and Territorial Authority**

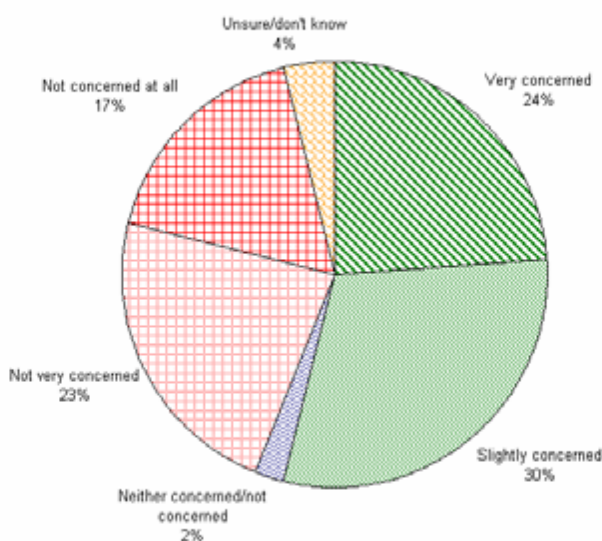


## 5.5 Construction of Seawalls to Protect Property from Long Term Coastal Erosion

Residents were asked how concerned they were about the *construction of rock and concrete seawalls along our coast to protect property from long term coastal erosion*.

### 5.5.1 Overall Result

Levels of concern with the construction of rock and concrete seawalls to protect property from long term coastal erosion were mixed. Just over half of residents (54%) expressed some concern about this environmental issue (24% *very concerned*, 30% *slightly concerned*). Conversely, two in five residents (40%) reported a lack of concern with this issue (17% *not concerned at all*, 23% *not very concerned*).



Base: All respondents (n=1000)

**Figure 5-9: Level of Concern with Construction of Seawalls to Protect Property from Long Term Coastal Erosion**

### 5.5.2 Comparison with Previous Years

This question was asked for the first time in 2006. Consequently no comparative results are available.

### 5.5.3 Demographic Variation

Those significantly more likely (than the regional average) to mention that they were **concerned** about the construction of rock and concrete seawalls along the coast to protect property from long term coastal erosion were those:

- who are unemployed/beneficiaries (78%), with an annual household income of \$30,000 or less (61%), or who are female (58%).

Those more likely to mention that they are **not concerned** were those:

- with an annual household income of more than \$150,000 (56%), aged 30 to 39 years (49%), who are male (45%), working full-time (44%) or in non-farming rural occupations (42%).

## 5.5.4 Geographic Variation

When considered by territorial authority and by urban and rural locations, those who were more likely to be **concerned** about the construction of rock and concrete seawalls along our coast to protect property from long term coastal erosion were:

- living in Hauraki (70%) or Thames-Coromandel (68%).

Those significantly more likely to say they were **neither concerned nor unconcerned** were:

- living in Waikato (5%).

Those who were more likely to be **not concerned** were:

- living in Taupo (54%) or Otorohanga (52%).



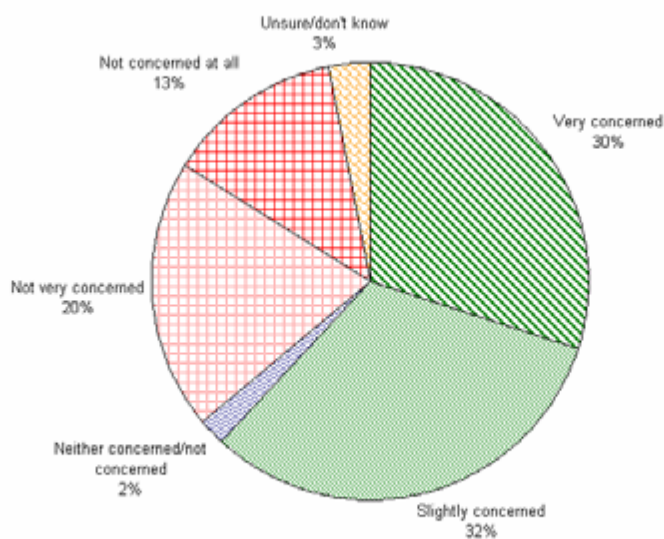
**Figure 5-10: Level of Concern with Construction of Seawalls to Protect Property from Long Term Coastal Erosion by Urban/Rural and Territorial Authority**

## 5.6 State of Native Bush and Wetlands on Private Property

Residents were asked how concerned they were *with the state of native bush and wetlands on private property*.

### 5.6.1 Overall Result

Just less than two-thirds of Waikato region residents (62%) expressed some level of concern with the state of native bush and wetlands on private property (30% *very concerned*, 32% *slightly concerned*). In contrast, a third (33%) of residents reported that this environmental issue is not of concern to them (13% *not concerned at all*, 20% *not very concerned*).



Base: All residents (n=1000)

**Figure 5-11: Level of Concern with State of Native Bush and Wetlands on Private Property**

### 5.6.2 Comparison with Previous Years

Levels of concern with the state of native bush and wetlands on private property have become more polarised since 2000. The proportion of the region's residents concerned about this environmental issue has increased significantly over the last six years (total concerned up from 52% in 2000 to 62% in 2006) – this increase attributed to an increase in the proportion of residents stating they were *very concerned* (up from 18% in 2000 to 30% in 2006). However, this increase in concern has been accompanied by an increase in the proportion of residents unconcerned about the state of native bush and wetlands on private property (total *unconcerned* up from 28% in 2000 to 33% in 2006).

**Table 5-5 Level of Concern with State of Native Bush and Wetlands on Private Property 2000, 2006**

**Table 5.5:**

	2000 %	2006 %	Change 00-06
Not concerned at all	10	13	+3
Not very concerned	18	20	+2
<b>Total Unconcerned</b>	<b>28</b>	<b>33</b>	<b>+5</b>
Neither concerned nor unconcerned	11	2	-9
Slightly concerned	34	32	-2
Very concerned	18	30	+12
<b>Total Concerned</b>	<b>52</b>	<b>62</b>	<b>+10</b>
Unsure/don't know	9	3	-6
<i>Base (respondents)</i>	1873	1000	

### 5.6.3 Demographic Variation

No particular demographic group was identified as being significantly more likely (than the regional average) to mention they were **concerned** about the state of native bush and wetlands on private property.

Those more likely to mention they were **not concerned** were those:

- with an annual household income of \$30,001 to \$60,000 (40%).

### 5.6.4 Geographic Variation

No particular territorial authority or urban/rural residents were identified as being more likely to either be concerned or not concerned about the amount of native bush and wetlands on private property.



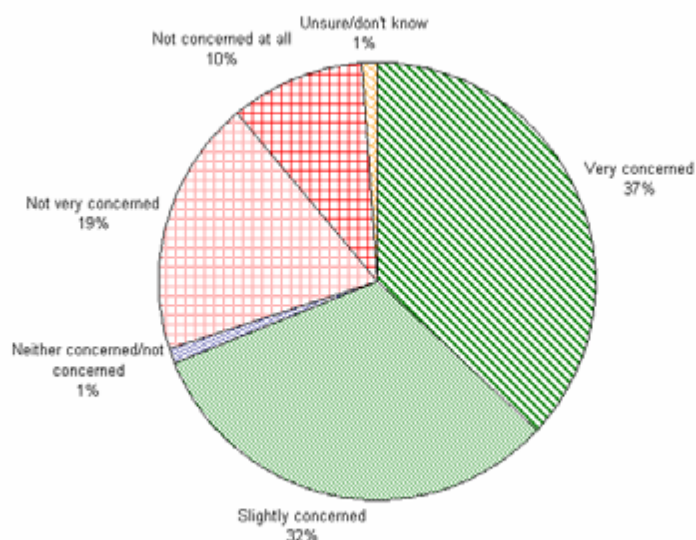
**Table 5-6: Level of Concern with State of Native Bush and Wetlands on Private Property by Urban/Rural and Territorial Authority**

## 5.7 Spread of Cities/Towns Across Farmland

Residents were asked how concerned they were with *the spread of cities/towns across farmland*.

### 5.7.1 Overall Result

The majority of Waikato region residents (69%) expressed some level of concern with the spread of cities/towns across farmland, 37% reporting being *very concerned* about this issue and a further 32% describing themselves as *slightly concerned*. In contrast, just less than a third of residents (29%) stated that this environmental issue was not of concern to them (10% *not concerned at all*, 19% *not very concerned*).



Base: All respondents (n=1000)

**Figure 5-12: Level of Concern with Spread of Cities/Towns Across Farmland**

### 5.7.2 Comparison with Previous Years

The level of concern with the spread of towns and cities across farmland has increased significantly since 2000 (total concerned up from 62% to 69%). The strength of concern in relation to this issue has also increased significantly over the last six years, the proportion of respondents stating that they were *very concerned* about urban sprawl having increased from 29% in 2000 to 37% in 2006.

**Table 5-7: Level of Concern with Spread of Cities/Towns Across Farmland 2000, 2006**

	2000 %	2006 %	Change 00-06
Not concerned at all	10	10	-
Not very concerned	17	19	+2
<b>Total Unconcerned</b>	<b>27</b>	<b>29</b>	<b>+2</b>
Neither concerned nor unconcerned	10	1	-9
Slightly concerned	33	32	-1
Very concerned	29	37	+8
<b>Total Concerned</b>	<b>62</b>	<b>69</b>	<b>+7</b>
Unsure/don't know	2	1	-1
<i>Base (respondents)</i>	1873	1000	

### 5.7.3 Demographic Variation

Those significantly more likely (than the regional average) to mention that they were **concerned** about the spread to cities and towns across farmland were those:

- who are female (74%).

Those more likely to mention that they were **not concerned** were those:

- with a trade certificate (41%)
- who are male (34%)
- working full-time (32%).

### 5.7.4 Geographic Variation

No particular territorial authority or urban/rural locations were identified as being more likely to either be concerned or not concerned about the spread of cities and/or towns across farmland.





**Figure 5-13: Level of Concern with Spread of Cities/Towns Across Farmland**