

New Ecological Paradigm Survey 2008:

Analysis of the NEP results

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1 Executive summary

The New Ecological Paradigm (NEP) scale is a means of assessing people's underlying ecological worldviews. These worldviews help shape people's attitudes and actions toward the environment. In order to achieve changes in people's behaviours, it is important to gain insight into their beliefs and values and how these drive them to take the decisions they do. Research has shown us that a person who achieves a pro-ecological score on the NEP scale is more likely to support actions that enhance the environment. A person who achieves an anti-ecological score is less likely to support actions that enhance the environment. It is, therefore, important for Waikato Regional Council to understand the underlying worldviews of Waikato residents in order to determine what level of ecological support there is and what the drivers are of that support, or lack thereof.

The Council has undertaken a NEP survey using the 6-item NEP scale every four years since 2000; with the next survey due to be run in 2013. In 2008, the survey was conducted with 600 residents aged 18 years and older. The overall sample of n=600 has a maximum margin of error of +/- 4% at the 95% confidence interval.

The 2008 survey included 16 statements, six of which are comparable with those from 2000 and 2004 and are referred to in this report as the 6-item NEP scale (see Figure 5), combined with an additional nine statements from the Expanded Ecological Values score (Ecological Value scale). The results for each of these additional statements are set out in Figure 6.¹

The individual statements are combined into two scales to assess the overall levels of environmental attitude within the Waikato region. Half of the 6-item NEP scale and four of the nine Ecological Value scale statements are worded such that a 'disagree' response is environmentally positive. These 'negative' statements have had the polarity of their rating scales reversed for analysis, with scores given on a five point scale. 'Don't know' responses are re-coded as 'neither / nor', mid-point response.

1.1 The 6-Item NEP scale 2000, 2004, 2008

The results for the 6-item NEP scale indicate that during each of the surveys at least one in six Waikato residents held pro-ecological views (refer figure 1 page over). Overall findings indicate,

- People in the Waikato continue to have generally positive attitudes towards the environment with 86 per cent having mid-ecological or pro-ecological attitudes
- Fewer people have pro-ecological attitudes in 2008 – 16 per cent, compared to 19 per cent in 2004 and 36 per cent in 2000
- 15 per cent have anti-ecological attitudes in 2008 compared to 23 per cent in 2004, a significant decrease at the 99% confidence interval
- There are now more people in the mid ground – with 70 per cent having mid-ecological attitudes, compared to 58 per cent in 2004, a significant increase at the 99% confidence interval

¹ An additional statement "Plants and animals have as much right as humans to exist" was inadvertently included, but was not used in calculation of the Ecological Value scale to avoid over-emphasis of the 'Domination of humans over nature' theme.

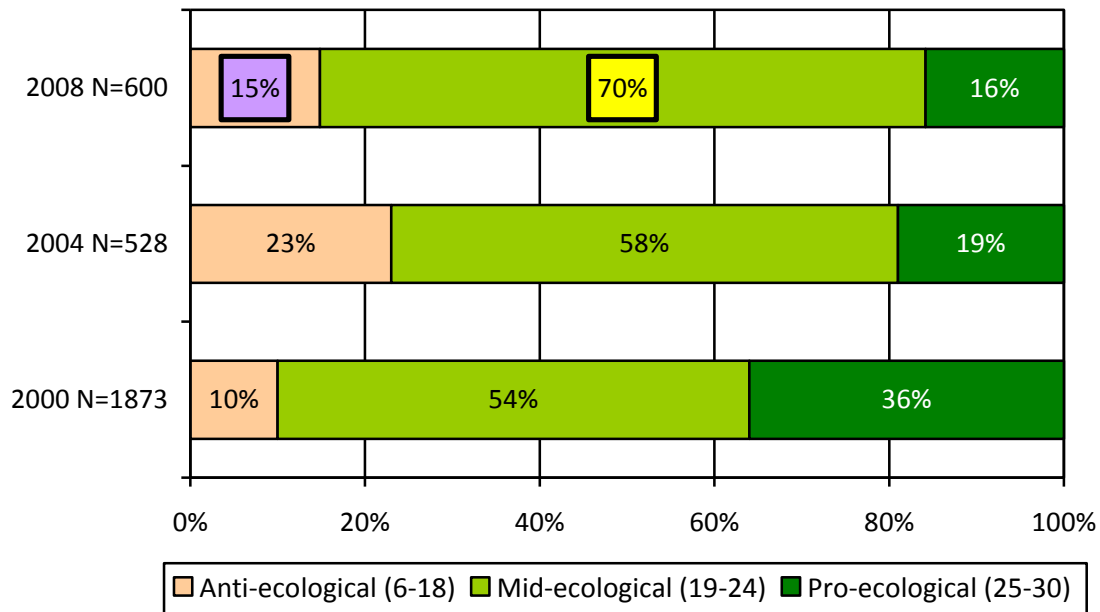


Figure 1: The 6-item NEP scale scores for 2008, 2004 and 2000

- The average (mean) regional NEP scale score in 2008 is 22 on a range of 6-30 where 6 is anti-ecological and 30 is completely pro-ecological, compared to 21 in 2004 and 23 in 2000. The 2008 result is equivalent to a score of 6.8 on a scale of ten.
- The most common (mode) score in 2008 is 24 compared to 22 in 2004 and 24 in 2000.
- Residents aged between 30 and 39 years and residents who have tertiary education are more likely to hold a pro-ecological worldview.
- Residents who are aged 60 years and older, male residents and those with secondary school education level are more likely to hold an anti-ecological worldview

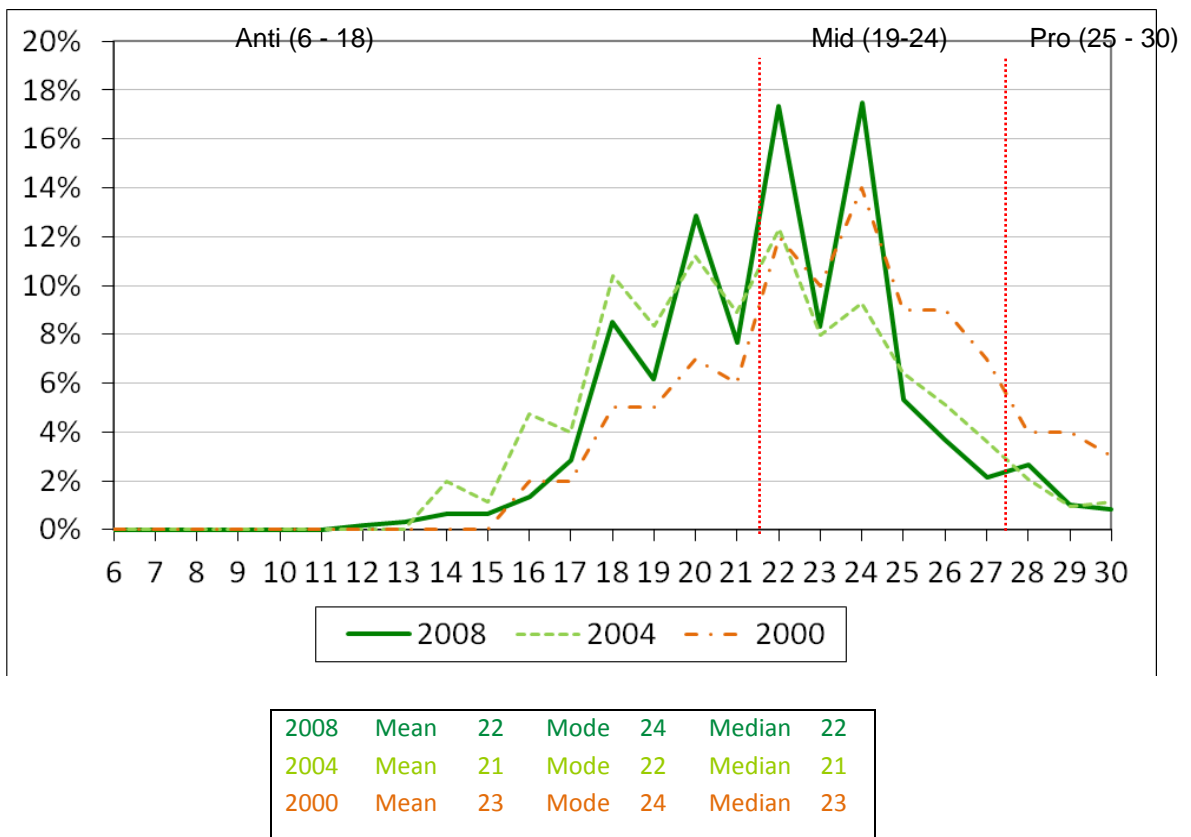


Figure 2: The 6-item NEP scale scores gained by Waikato people in 2000, 2004 & 2008

1.2 Ecological Values Scale Scores 2008

When looked at by Ecological Values scale scores, a similar number (18%) have pro-ecological attitudes, far fewer have anti-ecological attitudes (4%) and most people are in the mid ground with 79 per cent having mid-ecological attitudes.

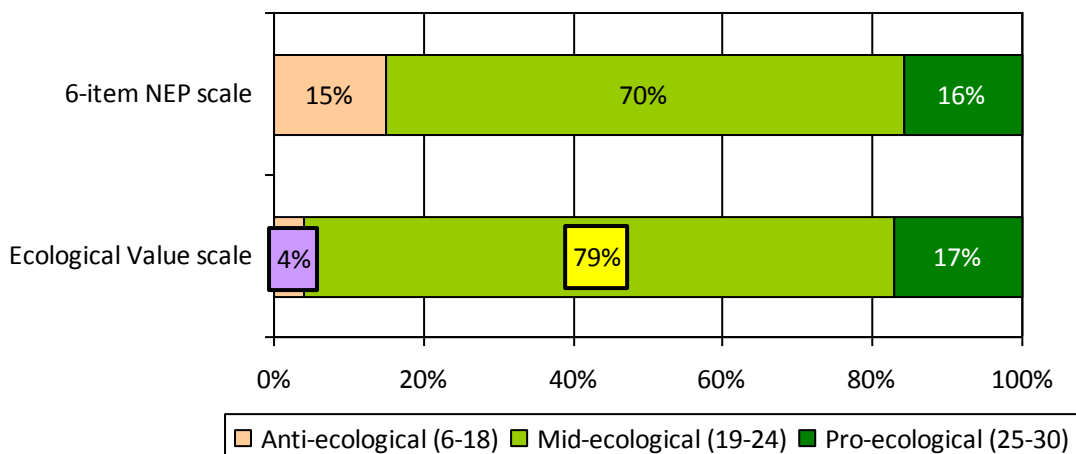


Figure 3: Pro-, Mid-, and Anti-Ecological Scores for the 6-item NEP scale and Ecological Value Scale

- The average (mean) regional Ecological Value scale score in 2008 is 55 out of 75 on a range from 15-75 (or is equivalent to a score of 6.7 out of ten)
- The most common (mode) Ecological Value scale score in 2008 is 58 out of 75 or 7.2 out of ten where five is the dividing line between being anti-ecological or mid-ecological and 7.5 is the dividing line between mid-ecological and pro-ecological scores.

- Similar to the 6-item NEP scale residents with tertiary education are more likely to hold a pro-ecological worldview on the expanded Ecological Value scale
- Residents who are 60years and older, male residents, those residing in South Waikato and rural locations are more likely to hold an anti-ecological worldview on the Ecological Value scale.

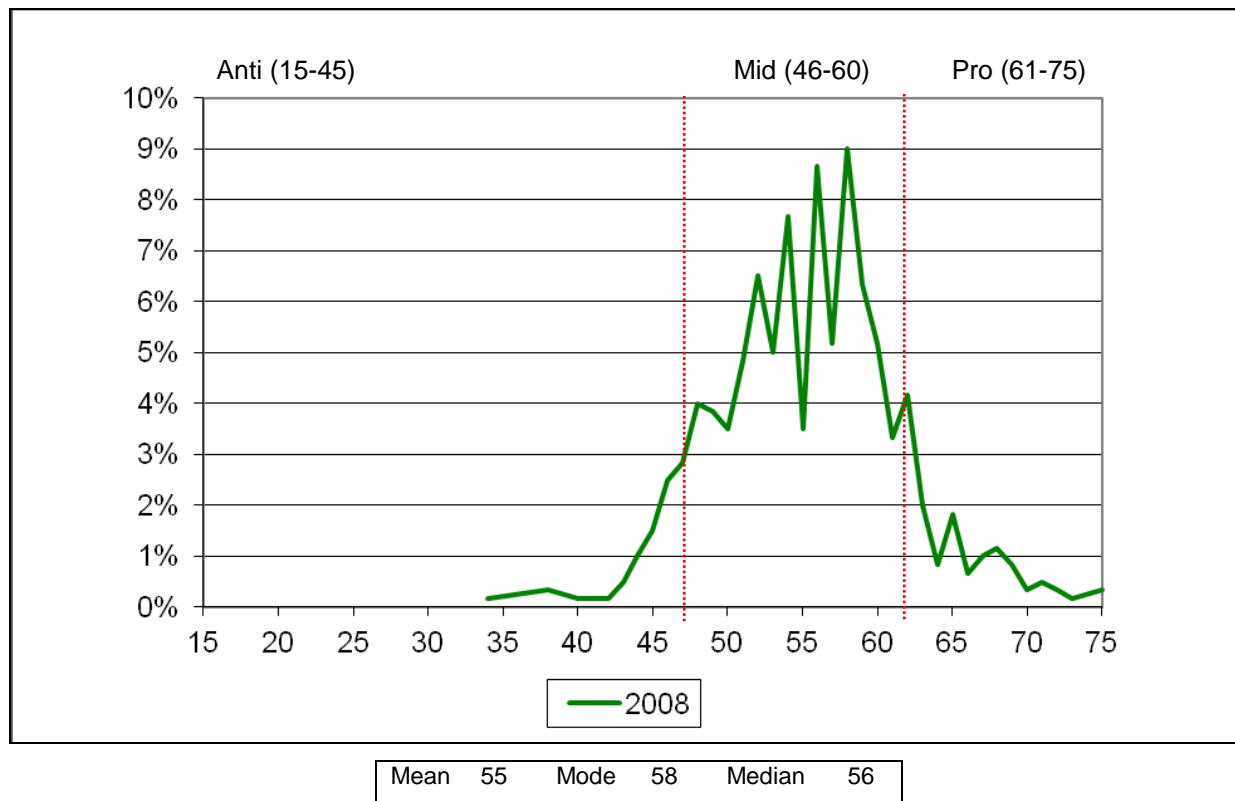


Figure 4: Ecological Value scale scores - Range of ecological scores gained by Waikato people

1.3 Drivers for ecological support and opposition

- The results for each statement is summarised in figure 5 and 6 below.
- Analysing the responses by theme, the most significant bases for their pro-ecological views (with pro-ecological support of 91-93 per cent across the statements in each theme) relate to people believing that:
 - They have a duty to non-humans such as recognising the intrinsic value of nature and that humans have moral duties and obligations to other animal species, and
 - There is a fine line between the natural world continuing and it being upset (as reflected in the statement that ‘the balance of nature is very delicate and easily upset’).
- The next main drivers are social justice (with 82% agreement), in terms of having responsibilities to ensure that both present and future generations of people have their basic needs met, and that there are limits to growth (with 80% agreement), in particular, that there are finite resources on this planet and also that there are limits to economic growth.
- The next underlying drivers which have support are the themes of domination of humans over nature (74% agreement) and environmental regulation (70%

agreement). The responses that were pro-ecological in terms of the domination of humans over nature indicated an underlying belief that plants and animals have intrinsic value and do not exist merely to be used or altered to suit people's wants and desires, but also have rights to exist independently of humans and that humans were not meant to rule over the rest of nature. Pro-ecological agreement for the environmental regulation theme indicated support for conserving the nation's resources and for using environmental regulation as one means of doing so.

- The underlying belief that appears to have the least pro-ecological agreement amongst Waikato respondents and, therefore, is likely to be least held by the community is the eco-crisis theme (53% agreement). Only half of the respondents reported that they believe modifying the environment for human use causes serious problems and that the so-called 'ecological crisis' is not greatly exaggerated.

1.4 Insights into ecological beliefs

- The domination of humans over nature theme is similar, but different, to the most significant theme of duties to non-humans. The difference between the levels of support for the two themes indicates that a small section of the population (7.3%) perceives nature as being valuable because it is a resource for humans to exploit, farm, or tend, but perceives nature as subjugated to human needs.
- The environmental regulation theme is a combination of two statements that have been combined in international studies where they have produced similar responses from people. In this survey of the Waikato region, however, they produced inconsistent answers (with an average value of 64.9%). Waikato respondents agreed that we must take stronger measures to conserve our nation's resources (93%), but were not as supportive of using an element of compulsion such as environmental regulations to achieve that (48%).
- This lower level of underlying belief in the need for environmental regulation is suggested by the two different levels of response to the statements in the environmental regulation theme. That is, people recognise action needs to be taken but give limited support to using regulations to achieve those changes. The question remains as to whether people assess only their own impacts on the environment, and how accurately they do that, or whether they consider the impacts of their actions in combination with everybody else's.
- Only half the respondents reported that they believe modifying the environment for human use causes serious problems. The same half believed that the so-called 'ecological crisis' is not greatly exaggerated. This lower level of underlying belief that a person's actions in modifying the environment can cause major ecological problems is correlated with a lower belief that the balance of nature is easily upset and that environmental regulation is necessary.

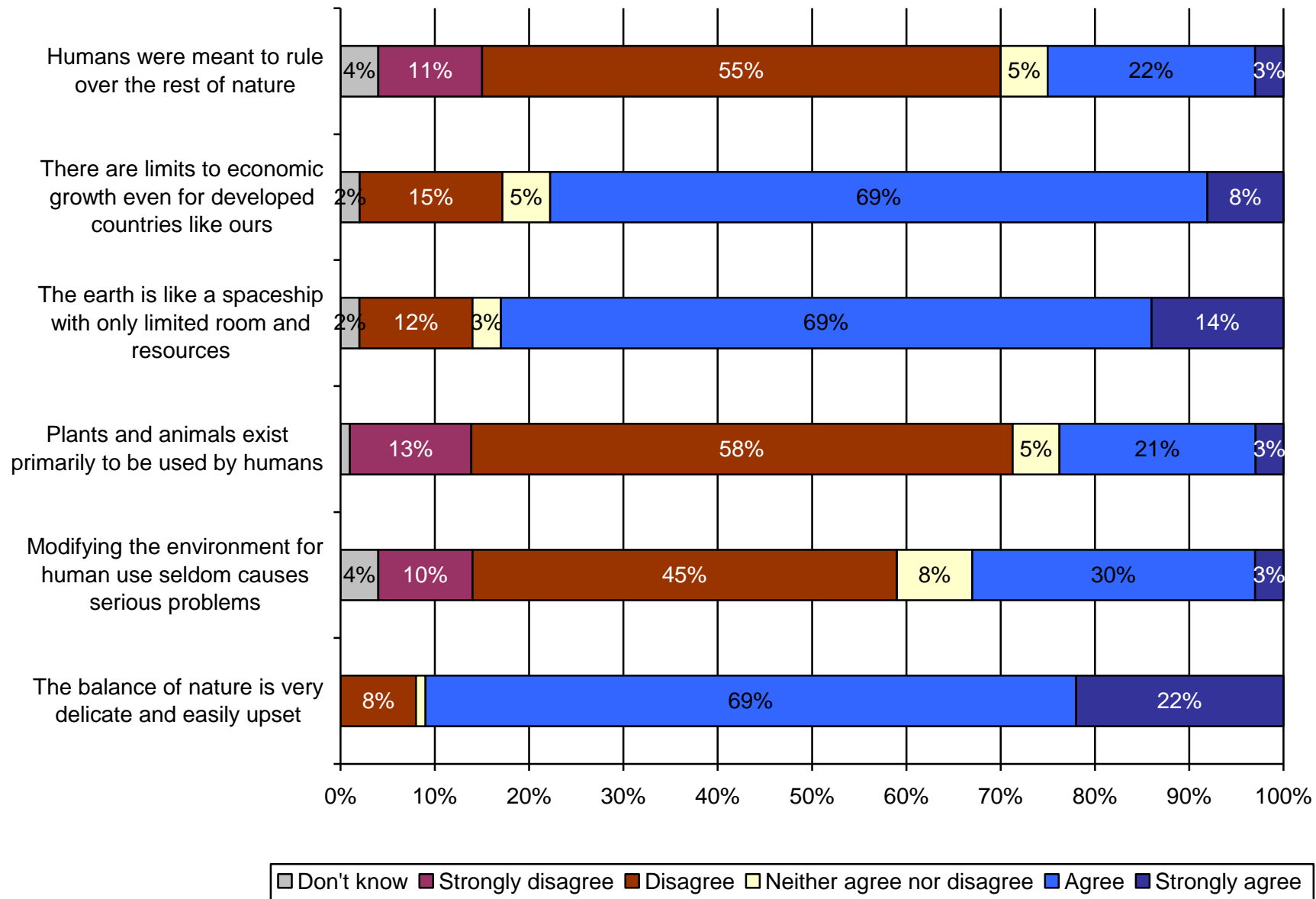
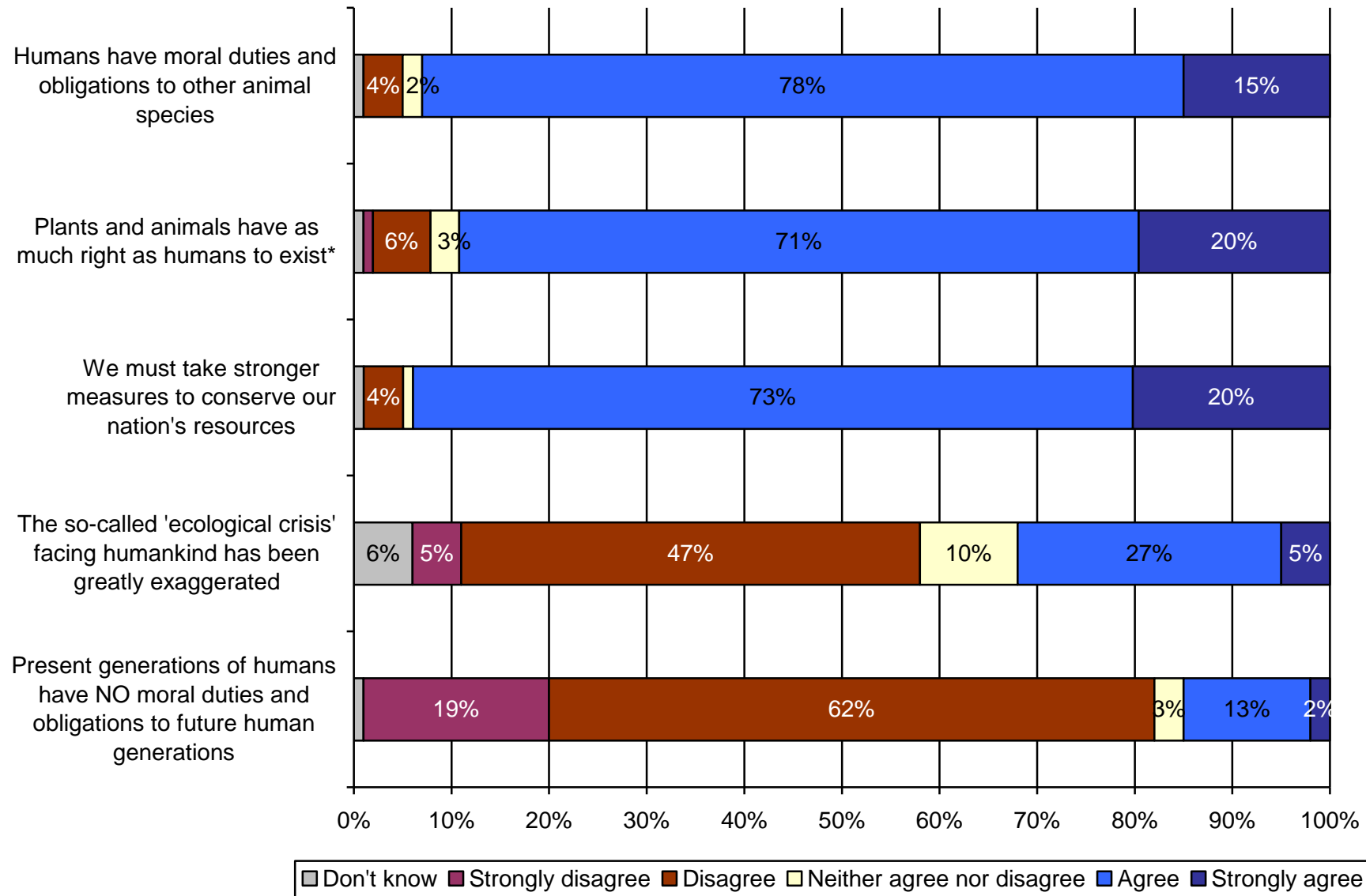


Figure 5: Summary of results for 2008



*This statement was inadvertently included in the final version of the questionnaire. The results are reported here, but this statement is not used as part of the Ecological Value scale to avoid over-emphasis of the 'domination of humans over nature' theme

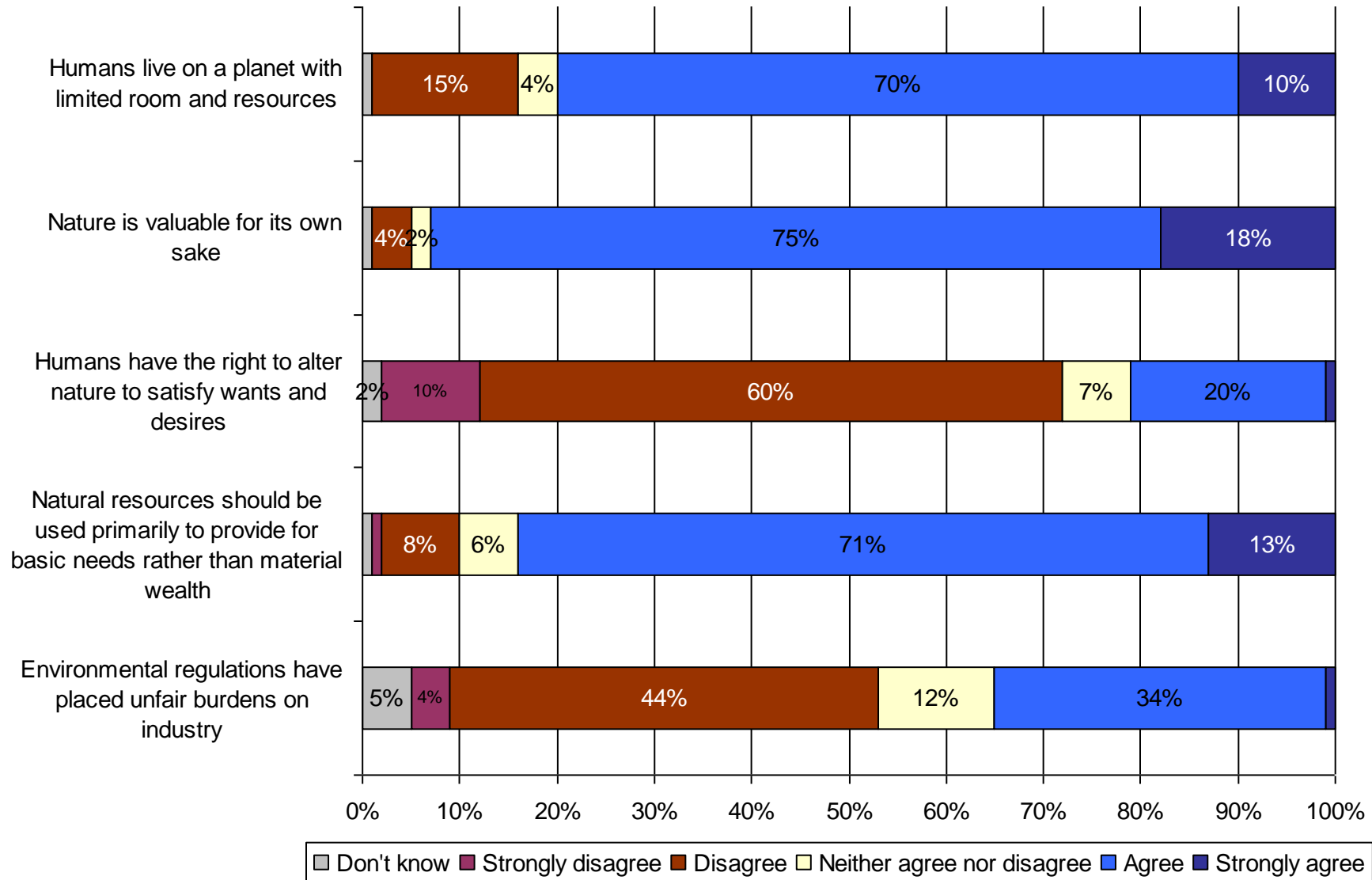


Figure 6: Summary of results for 2008 – 10 new statements

2 Background

Several ways of measuring people's environmental attitudes and underlying ecological worldviews have been developed since the 1970s. Of these, only two measures are frequently used: the Ecological Attitude Scale developed by Maloney and Ward in 1973 and the New Environmental (later Ecological) Paradigm Scale developed by Dunlap and van Liere in 1978 (Fransson and Gärling 1999, 370). The NEP scale became one of the most widely used measures of environmental concern in the world and has been used in more than 100 studies around the world (see Freudenburg 2008 and Hawcroft and Milfont 2010).

In 1998, the Council chose to trial one of Dunlap and van Liere's statements, 'the balance of nature is very delicate and easily upset', as part of its Environmental Awareness, Attitudes, and Actions Survey.

Following on from that, the Council used the shortened NEP consisting of six statements. The six statements were used to develop a website indicator² based on the 2000 (Waikato Regional Council) and 2004 (University of Waikato) surveys. There were distinct themes in the statements. The six statements covered the three identified in the original NEP scale namely balance between nature and human interventions, limits to growth and human's right to rule³.

Each respondent was asked to agree or disagree with each of these statements:

The six statements used were:

1. 'The balance of nature is very delicate and easily upset.'
2. 'Modifying the environment for human use seldom causes serious problems.'
3. 'Plants and animals exist primarily to be used by humans.'
4. 'The Earth is like a spaceship with only limited room and resources.'
5. 'There are limits to economic growth even for developed countries like ours.'
6. 'Humans were meant to rule over the rest of nature.'

Using these six statements, the Council surveyed residents in the Waikato region in 2000 and 2004. In 2008, when the survey was due to be repeated, the Council noted that Dunlap et al (2000) had revised its New Environmental Paradigm into a New Ecological Paradigm in 1990, including revising the mix and tone of the statements to give a more complete picture of people's ecological attitudes.

A literature review was undertaken to determine whether or not to adopt and apply the 15 statement New Ecological Paradigm in its entirety. The literature reviewing the revised NEP and other similar measures was mixed (see Lundmark 2007, Cordano et al 2003, and La Trober and Acott 2000). The decision was made to continue with the shortened version of the New Environmental Paradigm and add to that nine additional statements drawn from the New Ecological Paradigm and other similar measures to ensure that a mix of environmental themes was covered and that the statements were appropriate for Waikato residents. The additional statements extended the scale's ability to measure deeper ecological attitudes. This means that the results of the Expanded Ecological Values Scale, developed here, can be discussed in the context of

² <http://www.ew.govt.nz/Environmental-information/Environmental-indicators/Community-and-economy/Communities-and-their-views/p2c-keypoints/>

³ L.J. Hawcroft, T.L. Milfont (2010) The use (and abuse) of the new environmental paradigm scale over the last 30 years: A meta-analysis. *Journal of Environmental Psychology* 30 143 - 158

the New Ecological Paradigm results, but that it is not strictly comparable. It is still relevant, however, to consider the results of the Council's survey in the context of the literature on NEP and ecological attitudes in general.

What follows is a discussion of the range of ecological attitudes ranging from the Dominant Social Paradigm (DSP) of the 1960s and 1970s to the deepening pro-ecological attitudes that some sectors of the population are moving towards. Results of the NEP and similar surveys are then discussed leading onto an explanation of the selection of statements used in the Council's 2008 survey.

2.1 New Environmental Paradigm (NEP) Scale⁴

An adapted version of the 'New Environmental Paradigm Scale' (NEP) is used for this survey. The NEP was developed and tested by Dunlap and van Liere⁵, environmental sociologists at Washington State University in 1978. Further testing was done by other researchers using rural and urban communities in the United States. The NEP scale has also been used in most OECD countries, including Finland, Australia, and the United Kingdom.

2.1.1 Development of New Environmental Paradigm and New Ecological Paradigm

The literature noted that when Dunlap and von Liere developed the New Environmental Paradigm, the scale they developed was based on having the Dominant Social Paradigm at one end of the scale and emerging environmental awareness at the other end. The Dominant Social Paradigm (DSP) centres on humans seeing themselves as separated from nature and more worthy than other organisms (Lundmark, 2007, 329, at 331). With this moral superiority, humans are focused on their living conditions rather than anything or anyone else's, so that one of the key elements of the Dominant Social Paradigm is anthropocentrism (Lundmark, 2007, 329, at 331). Lundmark (2007, 329, at 331-2) goes on to observe that:

The values associated with nature are instrumental in character, in the sense that the natural environment is seen as providing resources that can be used for human purposes. Thus, nature is expected to promote the satisfaction of human wants, both in material and aesthetic terms (Mathews, 1994; Fox, 1995). Furthermore, anthropocentrism 'breathes' optimism, in the sense that humans are largely in control of the surrounding world and that problems arising from modern living can be taken care of, primarily through technical development. Human problem-solving capacity clearly applies to all kinds of difficulties, yet the focus within environmental ethics obviously is on those problems that might occur as a consequence of human intervention with nature (Stenmark, 2000). This faith in progress and prosperity has a long tradition in Western thought with roots in the Judeo-Christian tradition and the Enlightenment Period with its pronounced human-centred worldview (e.g. Meyer, 2001). ... Anthropocentrism only grants intrinsic value and, in prolongation, rights and interests to human beings (to dominate other forms of life as ecocentrism's advocates would claim).

Pirages and Ehrlich (1974 cited in Dunlap 2008b, 482) considered the Dominant Social Paradigm is an anti-ecological worldview that "included not only core conservative values such as individualism, laissez-faire government and private property rights, but also faith in technology, resource abundance, unlimited growth, and endless progress."

⁴ Some of the following information has been displayed on Waikato Regional Council's website at: <http://www.ew.govt.nz/Environmental-information/Environmental-indicators/Community-and-economy/Communities-and-their-views/p2c-techinfo/>

⁵ RE Dunlap and K van Liere (1978) "The New Environmental Paradigm: a proposed measuring instrument and preliminary results" *Journal of Environmental Education* 9, 10-19.

In contrast, the view of the emerging environmental awareness is one of ecocentrism. This belief system acknowledges that:

the natural environment consists of complex webs of ecological interdependence. Nature's interconnectedness not only means that pollution and other forms of human intervention can have multiple and highly elusive ecological effects, it also casts serious doubt on the anthropocentric idea of an absolute dividing line between human beings and nature (Taylor, 1992) (cited in Lundmark, 2007, 329, at 332).

With this interconnectedness of humans as part of nature comes the assumption that their mutual long-term interests and welfare are truly and deeply interconnected (Lundmark 2007, 332 citing Sessions, 1992, 104). People who recognise that everything on the planet is ecologically interconnected are thought to be more empathic to other life-forms and also to be cautious as to the impact and unforeseen consequences humans' actions can have on others (both human and nonhuman) (Lundmark 2007, 332 citing Eckersley 1992, 28).

Lundmark (2007, 331-2) suggests that proponents of ecocentrism assert the intrinsic value of both individual living organisms and of collectives such as species and ecosystems and that this is used to justify respect across boundaries including species, geographical and time boundaries to cover both present and future generations.

As a society, people's underlying environmental values have changed over the three decades since the development of the scale, and researchers have measured a change in society's values. Originally most people reported support for the Dominant Social Paradigm, but this moved to where there is now overall support for an emerging environmental awareness. With so many people now at the environmental awareness end of the original NEP scale, it was logical to develop a series of statements that extended that end of the scale to gain an understanding of the varying strength of environmental awareness, and also to develop statements related to the different categories of environmental awareness to understand where people's strength of concern lay and where they still did not consider that there are environmental issues. In the late 1980s and early 1990s Dunlap and his colleagues revised the New Environmental Paradigm to form a more comprehensive New Ecological Paradigm Scale that measured a greater range of eco-centric views. Other researchers also worked on extending such scales further to pick up on the nuances in changing worldviews about the environment.

The new statements categorised the emerging environmental awareness as shallow, middle and deep. Work was undertaken to measure some of the perceptions of environmental awareness that had existed for some time. For instance, shallow ecology was a term developed by Naess (1973). According to Lundmark (2007, at 333):

Proponents of shallow ecology focus on the importance of the environment for the health and well-being of people. They worry about the environmental situation, object to over-exploitation of natural resources and suggest political measures to deal with the environmental problems they perceive. However, according to their critics, they do not ask 'deep' questions about ecological relationships and the origins of environmental problems. Therefore, the recommendations that they make leave the basic structures of advanced industrial societies intact.

This questioning of people's motivations for their worldviews has also led to the development of 'deep' environmental awareness. Lundmark (2007, 333) states that these 'deep' environmental advocates, such as Naess (1973), Devall (1993), Devall and Sessions (1985) and Eckersley (1992) go further by suggesting that "the environmental crisis calls for reconsideration of major political, economic and social systems." They are more sceptical about human capacity to cope with environmental problems and see the environmental crisis as evidence of '...an inflated sense of human self-importance and a misconceived belief in our capacity to fully understand biospherical processes'.

Lundmark (2007, 333), however, suggests that these theorists still believe that

each of us can develop a feeling instead of knowledge for what is right from an ecological viewpoint, and that nature's integrity can be defended if each person sees herself/himself as part of nature.

A middle environmental awareness between the Dominant Social Paradigm and ecocentrism occupies the ground between these two levels of awareness.

Since Pirages and Ehrlich's Dominant Social Paradigm and Dunlap and van Liere's New Ecological Paradigm, other researchers have developed their own concepts on what paradigms are likely to need to emerge to ensure humans continue as part of nature (Jermier 2008, 466). These have a mix of anthropocentric altruism and ecocentrism, but also include consideration of the conventional technocentric paradigm, idealistic ecocentric paradigm, a sustaincentric paradigm, radical environmentalist paradigm, and a reform environmental paradigm (Jermier 2008, 466). Rather than focus on any specific paradigm and how they need to interrelate to functions, Figure 7 sets out what seem to be the common understandings of the range of ecological worldviews that researchers have recorded and described. They are set out as a continuum from the anthropocentric Dominant Social Paradigm of the 1970s to the Deep Green Ecological worldview that has been advocated by Naess and others.

Research undertaken around the world found that modifications to the wording of the statements and the inclusion of other ways of understanding ecological attitudes was needed to give a more complete picture of how people regard individuals, species, and ecosystems that exist now and in the future.

The Dominant Social Paradigm indicates the conservative extreme towards nature common in the 1960s and 1970s. In the 1970s and early 1980s, it was assumed that people's paradigm would move towards the New Environment Paradigm. Further research has shown, however, that it is possible to embrace the New Environmental Paradigm with an anthropocentric altruism and so could be only slightly ecocentric.

As research develops on humans' impact on the planet the continuum of worldviews will extend further and new categories of worldviews will need to be included.

Table 1: Continuum of different ecological viewpoints

Original researchers had an expectation that we would move along this continuum from DSP to NEP			Revised NEP	Extension of paradigm
Anthropocentric	Sustainable Development	New Environmental Paradigm	New Ecological Paradigm	Eco-centric
Dominant Social Paradigm of 1970s (DSP)		Shallow or light green	Middle green	Deep Green Ecological worldview
<p>Considered to have anti-environmental thrust</p> <p>As human beings, we are:</p> <ul style="list-style-type: none"> ○ seen as separated from nature ○ more worthy than other organisms ○ unique in that we use language, reason logically, and use advanced tools when building our societies ○ morally superior compared with non-humans ○ in control of nature's resources, which we see a huge robust warehouse of resources that humans are entitled to use to increase their wealth and well-being, both in material and aesthetic terms ○ rightfully allowed to subdue nature ○ willing to grant intrinsic value (and rights and interests) to human-beings in order to dominate other forms of life ○ so our acts towards nature are judged on how they affect us, not on how they affect other human beings <p>We preserve only those parts of the environment that have utilitarian values placed on them by us.</p> <p>We anticipate:</p> <ul style="list-style-type: none"> ○ being exempt from environmental constraints ○ so that there is continuous abundance and prosperity, ○ which we achieve through science, 	<p>We:</p> <ul style="list-style-type: none"> ○ recognize that humans are ecologically dependent on nature's resources for survival and wellbeing ○ have a sensitivity to the risks involved in human-nature relations, including the risk that natural resources might run out ○ care about environmental quality mainly because we believe that a degraded environment poses a threat to our health (anthropocentric altruism). <p>Our central concern, then, is about our well-being and not about the threat to the environment.</p> <p>We also tend to want a world at peace and</p>	<p>Mixed value system between DSP and ecocentrism</p> <p>We focus on:</p> <ul style="list-style-type: none"> ○ importance of environment for health and well-being of people ○ worry about environmental situation ○ object to over-exploitation of natural resources ○ suggest political measures to deal with environmental problems <p>We recognise:</p> <ul style="list-style-type: none"> ○ nature is highly delicate ○ so there is the possibility that we face severe environmental problems owing to excessive human interference with nature. <p>Our concern is mainly based on our concern for the welfare of human beings rather than embracing non-humans and ecosystems.</p> <p>We therefore believe we need to:</p> <ul style="list-style-type: none"> ○ uphold balance of nature ○ recognise the limits to growth of human societies, to which we must adapt ○ including considering the possibility of a steady state economy ○ undertake careful planning to avoid risks to humans and nature ○ seek a new society with 	<p>We believe more about:</p> <ul style="list-style-type: none"> ○ non-human rights, such as that plants and animals have as much right to exist as we do ○ stretching the community of rights-holders to embrace plants, animals and their habitats ○ the likelihood of eco-crises besetting human beings 	<p>We consider that:</p> <ul style="list-style-type: none"> ○ intrinsic worth applies to individual living organisms as well as to species and entire biotic communities ○ there is no clear dividing line between us and the rest of nature and so we are truly and deeply interconnected with the rest of nature ○ the natural environment consists of complex webs of ecological interdependence ○ including being interconnected and interrelated in terms of our mutual long-term interests and welfare ○ our interconnectedness provides the basis for a new sense of empathy and caution ○ humans, therefore, are not exempt from the rest of nature ○ we along with other species and ecosystems are likely to be beset by eco-crises resulting from our ongoing actions ○ which means that pollution and other forms of human intervention can have multiple and highly elusive ecological effects ○ so we have a keener appreciation that many of our activities are likely to have a range of unforeseen consequences for ourselves and other life-forms ○ that the environmental crisis is the effect of an inflated sense of human self-importance and a misconceived belief in our capacity to fully understand biospherical processes. <p>We reject the idea that humans are in control of nature.</p> <p>We believe:</p> <ul style="list-style-type: none"> ○ in the perception of wholeness

<p>technology and economic growth</p> <ul style="list-style-type: none"> ○ as for every problem there is a solution ○ therefore progress must never cease and growth is a necessity ○ so that we have better and better conditions <p>The world is vast with unlimited opportunities for human-beings so there is no need for conservation.</p> <p>This breathes an optimism that:</p> <ul style="list-style-type: none"> ○ humans are largely in control of the surrounding world ○ that we can adapt the environment to our needs and we do not need to adapt to the natural environment ○ we are able to take care of any issues that arise, primarily through technological development <p>This has a long tradition in Western thought and is rooted in Judeo-Christian tradition and the Enlightenment. It is based on a human-centred worldview</p> <p>We therefore have a strong emotional commitment to a laissez-faire economy, individualism, material abundance, the goodness of growth and to the sanctity of private property rights.</p> <p>We are egoistic in that we assess costs and benefits of activities in terms of our personal selves.</p>	<p>equality amongst humans because we judge our well-being on the basis of costs and benefits to humans as a group or to human beings in general.</p>	<p>cooperation, openness and participation</p> <ul style="list-style-type: none"> ○ adopt consultative and participatory politics that emphasize foresight and planning <p>We perceive a hierarchy as to what is considered to have intrinsic value:</p> <ol style="list-style-type: none"> 1. mammals 2. sentient beings where the ecosystem only needs protection because it provides habitat for these sentient beings 3. all recognised life such as plants and animals 4. the habitats of all plants and animals 5. the rest <p>The lower something is on the hierarchy, we consider it has less intrinsic value</p> <p>In addition, there is an issue as to whether we have a generalised compassion toward other species, other people, and other generations.</p> <p>We take actions such as taking care of our own household garbage</p> <p>We do not:</p> <ul style="list-style-type: none"> ○ ask deep questions about ecological relationships and the origin of environmental problems or ○ have a consistent understanding of sustainability and social justice <p>Recommendations that are made leaves the basic structures of advanced societies intact</p>		<ul style="list-style-type: none"> ○ intrinsic value of each individual living organism (humans included) and of collectives such as species and eco-systems ○ that nature's integrity can be defended if we each see ourselves as part of nature ○ in the ecosystem for its own sake and ○ promote holistic conservation of nature. <p>We have:</p> <ul style="list-style-type: none"> ○ a deep emotional concern about the fate of nature and the environment ○ high standards of moral relations between us and the rest of nature ○ a sceptical view to human's capacity to cope with environmental problems. <p>We respect nature (including us) across:</p> <ul style="list-style-type: none"> ○ species boundaries ○ geographical boundaries and ○ time boundaries <p>We expand the issues in the environmental debate to include:</p> <ul style="list-style-type: none"> ○ biotic rights ○ intrinsic value of nature ○ our moral obligations to future organisms <p>We carry our concerns through to our more specific attitudes and personal norms, such as having a greater sense of compassion for the fate of other life-forms (both human and non-human).</p> <p>When we assess an activity, we assess it on the basis of the costs and benefits to the ecosystem or biosphere. We make environmentally benevolent behaviour an integrated part of everyday life, including work and recreation.</p> <p>We express our concern through actions such as worrying not only about our own household's rubbish, but also everyone else's rubbish.</p> <p>We call for a reconsideration of major political, economic and social systems.</p>
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Sources: See all articles listed in Bibliography

2.2 Selection of statements

In selecting the statements to include in the 6-item NEP scale and Ecological Value scale, consideration was given to the mix in categories of worldviews and the mix in strength. Strength has been classified into four groupings:

- The Dominant Social Paradigm of the 1970s was classified as growth and development at all costs.
- 'Shallow' represents a slight move away from the Dominant Social Paradigm to a questioning of the impact of development.
- 'Middle' represents stronger underlying beliefs that probably manifest themselves in action, and
- 'Deeper' represents strong and committed underlying beliefs to ensuring that development is not at the cost of the quality of the environment. 'Deeper' indicates that researchers recognise that the community's underlying beliefs have and will develop over time and that even stronger commitment to reducing people's impact on the environment could develop in future.

The 6-item NEP scale and Ecological Value scale statements are categorised in Figure 8 (page over) into different aspects of opinion that shape environmental attitudes. The categories broadly correlate with the facets allocated to the shortened 6-item NEP scale and the proposed facets from the revised 15 item NEP scale.

The additional statements expanded on the themes by bringing in social justice, regulation attitudes, and duties to non-humans. The statements on social justice were taken from La Trobe and Acott (2000) and introduced a new category that reflected a deeper ecological attitude in terms of the need to understand about the distribution of resources between individuals, societies, and generations. An additional eco-crisis statement was brought in from the Revised NEP (Dunlap et al, 2000) to understand another aspect of the Dominant Social Paradigm relating to how much humans are prepared to acknowledge the impact that their lifestyles and technologies have had on the environment. Cordano et al's (2003) work on measuring regulation attitudes was used as a measure of a shallow ecological attitude, as they had found it had useful predictive ability. Additional statements related to the theme 'domination of humans over nature' were included from the Revised NEP to measure middle ecological attitudes.

Another statement on domination of humans over nature was used from the original NEP scale to measure the Dominant Social Paradigm. In other research by Lundmark (2007), an alternative way of asking this question (Humans have the right to modify the environment to suit their needs) was also found to be a good measure for this issue. Lundmark's statement on duties to non-humans was added to measure these deeper ecological values.

There was general consensus in the literature that the Revised NEP statement - The Earth is like a spaceship with only limited room and resources - was too dated. Researchers using that statement had found that the 'spaceship' concept was misunderstood especially by younger people. Various proposals had been made by other researchers, but none of these were testing as effective and the statement was retained. The Community, Economy and Environment Programme developed the statement - Humans live on a planet with limited room and resources - in-house to test whether or not it would prove to be a suitable replacement.

Table 2: NEP Statements categorised into different aspects of opinion

Category	Strength	Statements	Facets of the shortened 6-item NEP scale ⁶	Facets proposed revised 15 item NEP scale ⁷
Balance	Middle	The balance of nature is very delicate and easily upset	Balance of nature (1)	Fragility of nature's balance (13)
Domination of humans over nature	Middle	Plants and animals exist primarily to be used by humans	Human's right to rule(3)	-
	Middle	Humans were meant to rule over the rest of nature	Human's right to rule (6)	Anti anthropocentrism(12)
	Middle	Plants and animals have as much right as humans to exist	-	Anti anthropocentrism (7)
Duties to non-humans	DSP	Humans have the right to alter nature to satisfy wants and desires	-	Anti anthropocentrism (2)
	Middle	Humans have moral duties and obligations to other animal species	-	-
Eco-crisis	Deeper	Nature is valuable for its own sake	-	-
	DSP	Modifying the environment for human use seldom causes serious problems	Balance of nature (4)	-
Environmental regulation	DSP	The so-called 'ecological crisis' facing humankind has been greatly exaggerated	-	Possibility of an eco-crisis (10)
	Shallow	We must take stronger measures to conserve our nation's resources	-	-
Limits to growth	DSP	Environmental regulations have placed unfair burdens on industry	-	-
	Middle	The Earth is like a spaceship with only limited room and resources	Limits to growth(2)	The reality of limits to growth (11)
	Shallow	There are limits to economic growth even for developed countries like ours	Limits to growth (5)	-
Social Justice	Middle	Humans live on a planet with limited room and resources	-	-
	Deeper	Present generations of humans have no moral duties and obligations to future human generations	-	-
	Deeper	Natural resources should be used primarily to provide for basic needs rather than material wealth	-	-

⁶ LJ Hawcroft, TL Milfont (2010), The use (and abuse) of the new environmental paradigm scale over the last 30 years: A meta-analysis *Journal of Environmental Psychology* 30, 143-158

⁷ RE Dunlap and K van Liere (1978) "The New Environmental Paradigm: a proposed measuring instrument and preliminary results" *Journal of Environmental Education* 9, 10-19.

2.2.1 Further analysis of the data

In addition to an analysis of frequencies of responses and the construction of scales, a series of statistical tests were conducted to determine which of the statements is more influential among sectors of the Waikato population. The statistical techniques used include calculation of means, cross-tabulations with chi-square and cluster analysis. The results of each of these techniques are set out and discussed.

2.2.2 Means for different aspects of opinion

As discussed in the selection of statements (section 2.2) the 6-item NEP scale and Ecological Value scale statements are categorised into different aspects of opinion that shape environmental attitudes. The pro-ecological values in some of the statements are almost universally supported by the respondents. For instance, 93 per cent of respondents agree or strongly agree that “the balance of nature is very delicate and easily upset.” This indicates that in statements about balancing different aspects of the environment, the majority of people understand that and would be likely to support initiatives to address any general imbalance. The other main area of support amongst the community is the underlying fundamental belief that we have duties to non-human organisms. This level of support is indicated not only by the high levels of agreement, but also by the high mean scores.

The means of each aspect of opinion within the community is set out in the following bar graph.

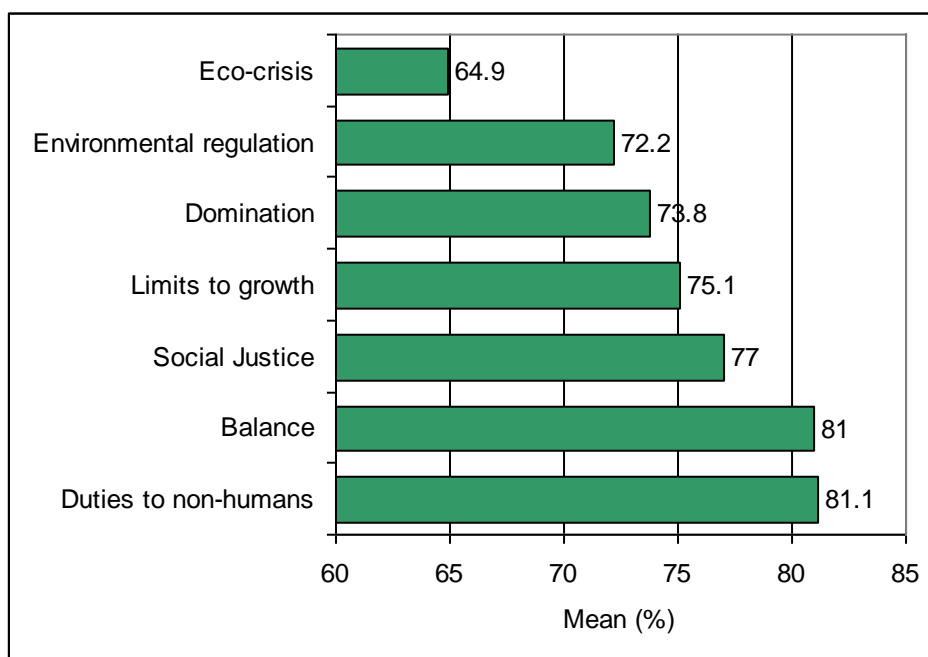


Figure 7: Mean value in per cent of each aspect of opinion

A second grouping of themes based on their means relates to the issues of social justice to the present and future generations and limits to growth, followed by a third grouping of domination of humans over nature and to a lesser extent environmental regulation. There is clearly a comparative lack of support within the community for a belief that we are causing serious problems to the environment when we modify it and perhaps as a result of that that the so-called ‘ecological crisis’ is accurately portrayed.

Whilst there is support for recognizing that the balance of nature is delicate and that nature is valuable for its own sake, responses to the other statements, however, indicate that within the community, as a whole, other aspects of people’s fundamental views are not as pro-ecological.

One in three people expressed an anti-ecological view for the statements “Modifying the environment for human use seldom causes serious problems” and “The so-called ‘ecological crisis’ facing humankind has been greatly exaggerated.” One in ten to twelve people said it depends and another one in twenty answered that they did not know what opinion to express. This indicates that this is the aspect of ecological concern that has the least underlying support and least fundamental acceptance from the community. The concept of an ecological crisis is not part of almost half the community’s belief structure and within that it is likely that a third of the community would be directly opposed to initiatives to address it.

In a survey of residents in the US state of Maine, Aldrich et al (2007, 761) found that for most of the statements in a New Ecological Paradigm survey, there was a general consensus. For a few statements, however, the responses were more evenly distributed across the response categories and these statements also produced diverse results in other studies. One of the statements with the most diversity is that ‘the so-called ‘ecological crisis’ facing humankind has been greatly exaggerated’.

2.3 Means of each strength grouping

The statements were selected to represent a mix of four strength groupings. Analysing mean score results by the four groupings show lower endorsements for Dominant Social Paradigm statements overall in 2008.

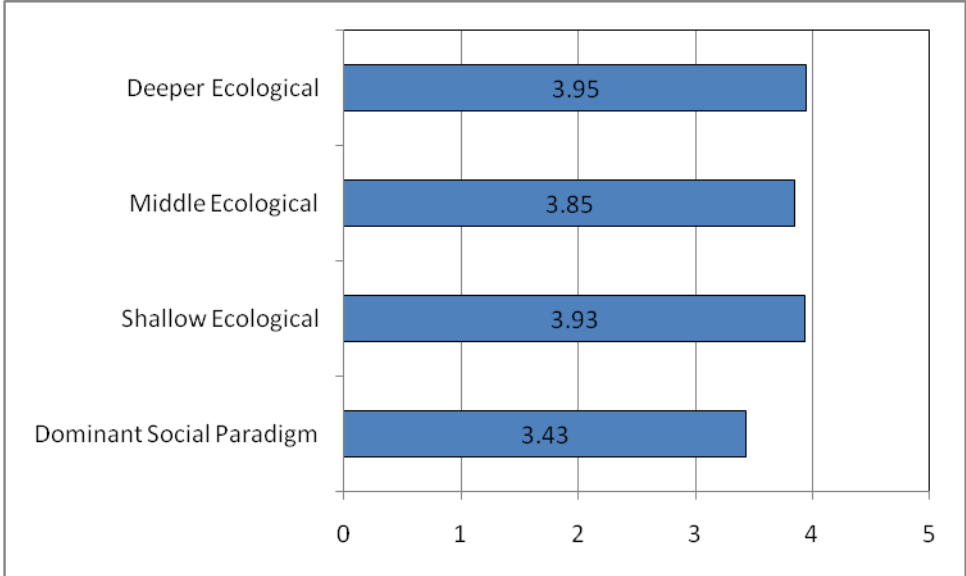


Figure 8: Means for each strength grouping

The statements that relate to the Dominant Social Paradigm of the 1970s are based on the idea that humans can alter nature to satisfy their wants and desires and that there are no limits to growth because technology can resolve all such issues. Based on the idea of human’s ability to overcome any environmental limits through the use of technology, the DSP dismisses the idea that there is any ecological crisis, and hence that environmental regulations place unfair burdens on industry. The lower mean score of 3.43 out of a possible 5 indicates that there is still support amongst the respondents for the idea that humans are not facing any critical ecological issues because they can overcome any limits through using technology to alter the rest of nature.

On the other hand, whilst still relying on technology to resolve many of the existing critical ecological issues, there is recognition amongst the respondents that humans are having an impact on the environment. The shallow ecological statements had a higher mean of 3.93 out of 5. These statements relate to using wisely the resources to which we have access in New Zealand.

Middle ecological measures achieve a mean of 3.85 which indicates that the respondents were not as committed to a pro-ecological view on these statements as

they were on the shallow ecological statements. The middle ecological statements relate back more to the DSP and provide a contrast with those. The statements are also about questioning whether or not humans have the right to rule over the rest of nature, and that there is a risk that the balance of nature can be upset. There is even some recognition that humans might have moral duties to other animal species. The statements also extend the recognition in the shallow ecological statements of having to use resources within New Zealand wisely to recognise that there is limited room and resources across the whole planet. The slightly lower mean of 3.85 compared with 3.93, however, indicates that the respondents were not as convinced of resource limits across the planet and that humans have obligations to other species.

The deeper ecological statements were drawn from literature that assumes people have adopted the earlier statements and, therefore, recognise there is limited room and resources and that humans have duties to non-humans as humans do not have the right to rule over other aspects of the environment. The deeper ecological statements are about the allocation of resources and rights within those limits. Almost all of the respondents agreed that nature is valuable for its own sake; however, it seems likely given their responses to the DSP and middle ecological statements that the respondents were still perceiving nature as having value as an exploitable resource for humans rather than truly having value for its own sake devoid of any exploitative wishes of humans. The other aspects that resulted in a mean of 3.95 for the deeper ecological statements relate to a more equitable allocation of resources amongst current people on the planet and with future generations.

The mix of scores across the types of ecological values indicates that there is no clear general trend amongst the respondents of a move from the DSP to a deeper ecological value of the environment.

2.4 Cross-tabulations

A chi-squared analysis was used to assess which responses for the various statements significantly align with the responses to other statements. The results for all statements are significant when cross-tabulated against the other statements indicating that the respondents were significantly more likely to agree with all of the statements.

Some respondents, based on their own responses to the statements, expressed concern⁸ that the statements elicited answers that were skewed and loaded towards pro-ecological responses. This is one indicator that values have changed across societies since the 1970s when the NEP statements had a more even spread of responses and more people held to the Dominant Social Paradigm of technology and development based on alteration of nature to satisfy human needs and wants and no limits to growth (see Dunlap and van Liere 1978). But the variety in the means of each theme in the Waikato region and for each ecological level indicates that the shift in ecological values since the 1970s is enough to cause all of the cross-tabulations to be significant. There is, however, still variety in the depth of those values that a mere cross-tabulation does not register.

3 Why this information is useful

In order to achieve changes in people's behaviours, it is important to gain insight into their beliefs and values and how these might drive them to take decisions they do. In his survey of Otago residents, for instance, Lovelock (2010, 479) used both a NEP scale and a General Ecological Behaviour Scale. Lovelock (2010, 470) found that the same factors that led to a higher NEP Score – age, gender, and level of education – were also associated with higher levels of environmentally friendly behaviour. Females and those with higher levels of education exhibit higher levels of general ecological behaviour. With age, however, he found that the youngest and oldest age groups

⁸ See Appendix III.

surveyed had the lowest levels of environmentally-friendly behaviour and that behaviour was positively correlated with age with the amount of behaviour peaking amongst those aged 55-64 years.

It has been noted by Weinreich (1999, 96-97) that in order to change someone's behaviour, that person needs to possess the following traits:

- Believe that it is at risk for the problem and that the consequences are severe
- Believe that the proposed behaviour will lower its risk and prevent the problem
- Believe that the advantages of performing the behaviour (benefits) outweigh the disadvantages (costs)
- Intend to perform the behaviour
- Possess skills to perform the behaviour
- Believe that it can perform the behaviour (self-efficacy)
- Believe that the performance of the behaviour is consistent with its self-image
- Perceive greater social pressure to perform the behaviour than not to perform it (social norms)
- Experience fewer barriers to perform a behaviour than not perform it.

It is also important that the barriers need to be removed or minimised in people's minds by highlighting the benefits by doing things such as informing them how to perform the behaviour, that people like them do the behaviour, and that it is affordable or worth it (Weinreich 1999, 98-99). People also need to be informed of the consequences of not adopting the behaviour. These consequences need to be believable. Weinreich (1999, 99) suggests that it is important not to exaggerate the consequences to make the point or your target people will dismiss the entire message.

Weinreich (1999, 99) advises that scaring people into doing something can backfire as people can become paralysed by fear and shut out the message. Conveying information on how to adopt pro-ecological behaviour, therefore, is more likely to be successful if you provide a solution or action at the same time as you deliver the message on the issue to be resolved. Weinreich recommends that any fear appeal you use must be something that the target audience can do something about.

Analysing Waikato respondents ecological beliefs helps us to understand whether they are motivated by concerns about the balance between nature and people, limits to growth, social justice, duties to non-humans, domination of humans over nature, the ecological crisis and environmental regulation. For instance, if people believe that there are limits to growth then it might be possible to show them that within those limits there are social justice issues regarding the allocation of those limited resources amongst human generations and between humans and other parts of nature.

As repeated survey measures are conducted, some understanding of how, and in what areas, attitudes are changing and could be developed. The survey also enables some insight into how much people's ecological positions change as they age or whether people form their value systems early in life and remain wedded to particular ecological viewpoints.

4 Conducting the survey

Versus Research Ltd was commissioned by Waikato Regional Council to survey residents in the Waikato region to measure current public attitudes towards the environment to gain an understanding of people's underlying beliefs that affect how they make decisions about the environment.

This survey was a repeat of previous surveys conducted in 2000 and 2004 asking the same 6-item NEP scale as in previous years, along with nine new statements drawn from similar studies in environmental sociology.

4.1 Methodology

A telephone survey of a random sample of Waikato people aged 18 years and over was conducted between Monday, 12 May and Friday, 16 May 2008. Surveying was conducted in the evenings between 4.30pm and 8.30pm to ensure all residents had an equal opportunity to take part.

The numbers were randomly generated from Telecom's random number service Tele-ranges. All interviewing was completed on the Versus CATI (computer-assisted-telephone-interviewing) system on-site in Hamilton, with interviewers supervised by a senior researcher at all times to handle non basic questions and queries.

A pilot survey was completed on the evening of Thursday, 8 May 2008 to check questionnaire flow and ensure any potential areas for confusion were eliminated and/or technical issues removed prior to "going live".

The final sample consisted of n=600 residents, with n=214 from Hamilton City and n=386 from all towns throughout the rest of the Waikato Regional Council area. A profile of the sample is provided below.

4.2 Response rates

Response to this random survey was good with 42% of Waikato people who qualified taking part once contacted.

Table 3: Response Rate

Waikato region		N=	%
	Completed surveys including:	633	41.9%
	- pilot	33	2.1%
	- analyzable sample	600	39.8%
	Refusals	876	58%
	Total qualified contacts made	1509	100%

4.3 Weighting of data

At Waikato Regional Council's request, the final data was weighted to reflect urban/rural split, however the final sample was very close to the actual population so there were no essential differences between weighted and non-weighted results.

4.4 Margin of error

The overall sample of n=600 has a maximum margin of error of plus or minus 4% at the 95% confidence level. That is, if the findings indicate 50% of the sample (maximum margin of error) there is a 95% chance that the true answer lies between 46% and 54%.

4.5 Missing data

Survey data was checked for completion of records and consistent response, with up to ten per cent of responses audited for a true reflection of participants opinion.

Where data is missing from the Scale statements, it is usually corrected for by either assigning the median values for the variable (Lovelock 2010, 473) (here it is the value '3' or Neither Agreeing or Disagreeing with the statement) or assigning the mean value for that statement based on all of the other responses.

By using a CATI system where the interviewer cannot move on to the next statement until an answer has been recorded, the only non-responses given in the survey were 'don't knows'. The highest level of Don't Knows was recorded for the 'Modifying the environment for human use seldom causes serious problems' statement in 2004 when 11 per cent said Don't Know. These have all been re-coded as 3: neither agree nor disagree, as per previous measures.

4.6 Significance testing

Significance testing is used to determine whether the difference between two results is statistically significant or not, i.e., to determine the probability that an observed difference occurred as a result of chance, and not due to random sampling error. Significance testing has been applied to groups with more than n=30 residents in them.⁹

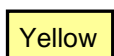
Significance testing was conducted in this report between:


- Total results compared to gender and age groupings (18-19 yrs, 20-29yrs, 30-39 yrs, 40-49yrs, 50-59yrs and 60yrs+)
- Total results compared to education qualification (primary school, secondary school qualification, secondary school, trade certificate and tertiary qualification)
- Total results compared to district and location (rural or urban).

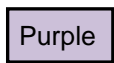
In the tables contained within this report, statistical significance has been performed between the total sample and the area sub-groups. The differences are indicated by plus or minus signs under the percentages as follows:


- A single plus or minus (+ or -) denotes that the result for that sub-group is statistically different from the result for the total population at the 90% confidence level
- Two plusses or minuses (++ or --) denotes significance at the 95% confidence level
- Three plusses or minuses (+++ or ---) denotes significance at the 99% confidence level

On the charts contained within this report, statistically significant differences are indicated by yellow and purple shading. The borders (solid or dotted) indicate confidence level as follows:

 shading indicates that a result is statistically higher at 99% confidence interval

 shading indicates that a result is statistically higher at 95% confidence interval

 shading indicates that a result is statistically lower at 99% confidence interval

 shading indicates that a result is statistically lower at 95% confidence interval

4.7 2008 Sample

Demographic data was collected from all survey respondents, all of whom lived in the Waikato region at the time. The data were compared to data collected from all households in the Waikato region as part of Statistics New Zealand's 2006 Census to

⁹Significance testing cannot be applied to sample sizes of less than 30.

determine how representative the people participating in the survey are of all people in the Waikato region.

4.7.1 Age

Those aged 18-39 are under-represented in the sample whilst those aged 40 and older are over-represented.

Table 4: Table of age of sample and census populations

	Survey Sample (%)	Waikato region (%) census corrected	Waikato region (%)
18-19	2	4.1	3
20-29	9	16.9	12.3
30-39	16	18.7	13.6
40-49	19	20.1	14.6
50-59	22	16.7	12.1
60 years plus	32	23.4	17

The 'Waikato region (%) census corrected' recalculates the 2006 Census night population excluding all residents aged under 18 years.

4.7.2 Gender

Males are under-represented and females are over-represented in the sample.

Table 5: Table of gender of sample and census populations

	Survey Sample (%)	Waikato region (%)
Male	38	49.1
Female	62	50.9

4.7.3 Formal education

People that hold any sort of tertiary qualification or who attended only primary school are over-represented in the sample. People who attended secondary school and those whose highest educational achievement is a secondary school qualification are under-represented in the sample.

Table 6: Table of formal education of sample and census populations

	Survey Sample (%)	Waikato region (%)
Primary School	3	0
Secondary School	18	34.4
Secondary School Qualification	30	41.8
Trade Certificate	11	8.9
Tertiary	38	14.9

4.7.4 Income

In the 2006 Census, the highest income group is \$90,000 and above. Income groups were approximately represented in the survey, with the exception of people in the \$60,001-\$90,000 income bracket who were over-represented. Significantly, fewer people stated in the survey that they did not know their income compared with the 2006 Census data for the region. This might be because of the different times of year when the two surveys are conducted.

Table 7: Table of income of sample and census population

Income	Survey Sample (%)	Waikato region (%)
\$0-\$30,000	22	25
\$30,001-\$60,000	26	24.2
\$60,001-\$90,000	25	15.8
\$90,001-\$150,000	14	18.4
\$150,000+	4	N/A
Refused	5	N/A
Don't Know	5	16.6

4.7.5 Ethnicity

European/Pakeha people were significantly over-represented in the sample. In asking this question, although the option is not read out to respondents, 13 per cent of respondents identified their ethnicity as “New Zealander”. All other groups – Maori, Pacific Island, Asian – were under-represented.

Table 8: Table of ethnicity of sample and census population

	Survey Sample (%)	Waikato region (%)
European/Pakeha	79	67.2
Maori	8	20
Pacific Islander	1	3.1
Asian	2	4.8
Other	4	16.15
New Zealander	13	0
Refused	0	0

These numbers add to more than 100 per cent because people can choose to identify with more than one ethnic group.

4.7.6 Maori ancestry

People with some Maori ancestry were under-represented in the survey while those with no Maori ancestry were over-represented. It is noted that only 8 per cent of survey respondents stated their ethnicity as Maori but 17 per cent have some Maori ancestry. Those with no Maori ancestry were over-represented. Fewer people refused to say whether or not they had any Maori ancestry in the survey compared with the 2006 Census. The lower level of ‘Refused’ in the NEP survey appears to indicate that it is people with no Maori ancestry who refuse to answer this question in the Census.

Table 9: Table of Maori ancestry of sample and census population

	Survey Sample (%)	Waikato region (%)
Some Maori ancestry	17	23.3
No Maori ancestry	81	68.5
Refused	2	8.2

4.7.7 District/Territorial authority

Only one demographic characteristic – territorial authority – was set a quota in selecting survey participants. This was to ensure that the survey respondents mirrored the spread of the region’s population. No other characteristics were set a quota as in the past contacting households and asking whether any males are home or wanting to know about any education before asking further questions can cause alarm and offence.

Table 10: Table of district populations of sample and census populations

	Survey Sample (%)	Waikato region (%)
Hamilton	34.5	33.8
Waikato	11.2	11.5
Waipa	11.2	11.1
Taupo	8.7	8.4
Matamata-Piako	8	7.9
Thames-Coromandel	7.2	6.8
South Waikato	5.7	5.9
Hauraki	4.3	4.5
Otorohanga	2.3	2.4
Waitomo	2.3	2.4
Franklin	3.8	4.3
Rotorua	0.8	0.9

4.7.8 Summary

Overall, the demographic characteristics in the sample that were significantly under-represented include:

- 18-29 year olds
- Males;
- Those whose highest educational qualifications are either attending secondary school or holding a secondary school qualification;
- Maori and those with some Maori ancestry; and
- All other ethnicities other than European.

Those significantly over-represented in the survey sample include:

- Those aged 40 years or older;
- Females;
- Those holding tertiary qualifications or who attended only primary school;
- Earning between \$60,001 and \$90,000 per annum;
- European/Pakeha and those that identify their ethnicity as “New Zealander”;
- and
- Those with no Maori ancestry.

5 Results for each statement

The results were initially analysed in terms of the frequency or number of people providing each response to a statement. These were then cross-tabulated with respondents’ demographic characteristics and tested using chi-square to determine which demographic groups were more likely to agree or disagree with each statement. The tables setting out these results for each statement are included in Appendix II.

5.1 Summary table of scores for each statement

Table 11 page over, sets out the results for each of the statements.

As is demonstrated by other statistical analysis, the standard deviations for several statements indicate that respondents had a greater diversity of opinion on the responses. The statements with the greatest standard deviation in decreasing order are:

- Modifying the environment for human use seldom causes serious problems.
- Humans were meant to rule over the rest of nature.
- The so-called 'ecological crisis' facing humankind has been greatly exaggerated.
- Plants and animals exist primarily to be used by humans.
- Environmental regulations have placed unfair burdens on industry.

Table 11: Summary results for all statements

Category	Strength	Statements	% distribution					N	Mean ¹⁰	Std Error	SD
			SD	D	N/N	A	SA				
		(* 6-item NEP scale)									
Balance	Middle	The balance of nature is very delicate and easily upset*	0	8	2	69	22	600	4.03	0.031	0.766
Eco-crisis	Dominant Social Paradigm	Modifying the environment for human use seldom causes serious problems*	10	45	12	30	3	600	3.30	0.045	1.094
Domination of humans over nature	Middle	Plants and animals exist primarily to be used by humans*	13	58	6	21	3	600	3.57	0.042	1.031
Limits to growth	Middle	The earth is like a spaceship with only limited room and resources*	0	12	5	69	14	600	3.84	0.034	0.821
Limits to growth	Shallow	There are limits to economic growth even for developed countries like ours*	1	15	7	70	8	600	3.70	0.034	0.843
Domination of humans over nature	Middle	Humans were meant to rule over the rest of nature*	11	55	9	22	3	600	3.48	0.043	1.049
Social Justice	Deeper	Present generations of humans have no moral duties and obligations to future human generations	19	62	4	13	2	600	3.83	0.038	0.933
Eco-crisis	Dominant Social Paradigm	The so-called 'ecological crisis' facing humankind has been greatly exaggerated	5	47	16	28	5	600	3.20	0.043	1.043
Environmental regulation	Shallow	We must take stronger measures to conserve our nation's resources	0	5	3	73	20	600	4.07	0.027	0.654
Domination of humans over nature	Middle	Plants and animals have as much right as humans to exist ¹¹	1	6	3	71	20	600	4.03	0.029	0.718
Duties to non-humans	Middle	Humans have moral duties and obligations to other animal species	1	4	3	78	15	600	4.03	0.025	0.622
Environmental regulation	Dominant Social Paradigm	Environmental regulations have placed unfair burdens on industry	4	44	17	34	1	600	3.16	0.040	0.990
Social Justice	Deeper	Natural resources should be used primarily to provide for basic needs rather than material wealth	1	8	7	71	13	600	3.86	0.031	0.770

¹⁰ Mean Likert scores after adjustment for direction. Higher scores indicate pro-NEP worldview.

¹¹ This statement was inadvertently included in the final version of the questionnaire. The results are reported here, but this statement is not used as part of the scale as that would have over-emphasised the theme 'domination of humans over nature.'

Category	Strength	Statements	% distribution					N	Mean ¹⁰	Std Error	SD
			SD	D	N/N	A	SA				
		(* 6-item NEP scale)									
Domination of humans over nature	Dominant Social Paradigm	Humans have the right to alter nature to satisfy wants and desires	10	60	9	20	1	600	3.59	0.039	0.949
Duties to non-humans	Deeper	Nature is valuable for its own sake	0	4	3	75	18	600	4.06	0.025	0.611
Limits to growth	Middle	Humans live on a planet with limited room and resources	1	15	4	71	10	600	3.73	0.035	0.851

6 The 6-item NEP scale and Ecological Value scale of Waikato people's environmental attitudes in 2000, 2004 & 2008

The individual statements were then combined into two scales to assess the overall levels of environmentally positive attitudes within the Waikato region. The 6-item NEP scale consists of statements that were developed by Dunlap (2008b, 8) and used for the Environmental Attitudes indicator on Waikato Regional Council's website.¹²

The Ecological Values scale combines the 6-item NEP scale with nine additional statements drawn from a number of sources¹³ to include a more diverse range of environmental issues including social justice, duties to non-humans and environmental regulation statements.

6.1 The 6-item NEP scale

Half of the 6-item NEP scale statements are worded so an 'agree' response is environmentally positive. The others are worded so a 'disagree' response is environmentally positive. These negative statements have had their polarity reversed for the analysis. Scores are given on a five-point scale.

The scale consists of:	Points
Strongly agree	5
Agree	4
Neither agree nor disagree	3
Disagree	2
Strongly disagree	1

'Don't know' are re-coded as 'Neither/nor' (code 3) on the answer scale. Owing to the use of a CATI system for entering people's responses, there were no gaps in the data; therefore, there are no non-responses. The scores for answers to each of the six statements are then added together to deliver a rating out of 30 – the 6-item NEP scale. The six items included in the scale score are:

1. The balance of nature is very delicate and easily upset (Strongly agree: Pro-ecological)
2. Modifying the environment for human use seldom causes serious problems (Strongly disagree: Pro-ecological)
3. Plants and animals exist primarily to be used by humans (Strongly disagree: Pro-ecological)
4. The earth is like a spaceship with only limited room and resources (Strongly agree: Pro-ecological)
5. There are limits to economic growth even for developed countries like ours (Strongly agree: Pro-ecological)

¹²<http://www.waikatoregion.govt.nz/Environmental-information/Environmental-indicators/Community-and-economy/Communities-and-their-views/p2c-keypoints/>

¹³ The original NEP statements, statements from the New Ecological Paradigm, and from other researchers working in the same field.

6. Humans are meant to rule over the rest of nature. (Strongly disagree: Pro-ecological)

6.1.1 Reliability of the 6-item NEP scale

Despite statisticians stating that Cronbach's α must be .7 or higher for a constructed scale to be considered reliable, in the environmental attitudes literature, researchers seem willing to accept a Cronbach's α as low as 0.693 (Lovelock 2010, 473) as indicating the scale is reliable. The lower the α , the lower the degree of consistency of the statements in the scale to each other (Peterson et al 2008, 298). Despite high levels of consistency found in many NEP scale results, however, where Principal Component Analysis is done (for instance Dunlap *et al.* 2000), more than one dimension is usually revealed.

The 6-item NEP scale was tested for reliability using Cronbach's α . For the 2000 results, Cronbach's α for the six statement scale was .6261. For a scale to be considered reliable and robust in that the scale is constructed using consistent statements, the minimum score is .7. Cronbach's α for the 6-item NEP scale was, therefore, indicative rather than a reliable measure for respondent's ecological worldviews in 2000. The 6-item NEP scale in 2004 tested .621 using Cronbach's α and using the same six statements in 2008, Cronbach's α was much lower at .422. This indicates that the respondents were not as consistent in their answers for different statements as they were in 2000.

Another way to assess the reliability of the scale is to calculate the Cronbach's α for the scale when a statement is deleted from the scale. The α in the scales decreased whenever a statement was deleted.

6.1.2 Results

The allocation of scores into the categories of pro-ecological, mid-ecological and anti-ecological is based on a study by New South Wales Environment Protection Authority (1997, 22).

The regional result is compiled as the percentage of respondents in three categories based on the 6-30 scale:

- **Pro-ecological – (Scores in the range of 25-30)** – This is equivalent to a percentage score of 79 to 100 per cent and indicates that on average the respondent would have had to give environmentally positive Agree answers at least five times plus a Strongly Agree response to at least one statement. It would also be possible to give a combination of only two Neither/Nor answers and to answer the other four statements as Strongly Agree.
- **Mid ecological – (Scores in the range of 19-24)** – This is equivalent to a percentage score of 54 to 78 per cent. At the lower end of this grouping, to be classed as mid ecological a respondent could give five Neither/Nor answers and one environmentally-positive Agree answer. At the upper end of this grouping, a respondent would have to give environmentally positive Agree answers to all six statements. There are a range of combinations between these two ends.
- **Anti ecological – (Scores in the range of 6-18)** – This is equivalent to a percentage score of 50 per cent or less. The most environmentally positive answers someone in this group could give would be six Neither/Nor responses. At the lower end of this grouping someone would have to strongly disagree with all environmentally positive statements.

The results for the 6-item NEP scale indicate that during each of the surveys at least one in six Waikato residents held pro-ecological views. In 2008, however, another one in six respondents held anti-ecological views.

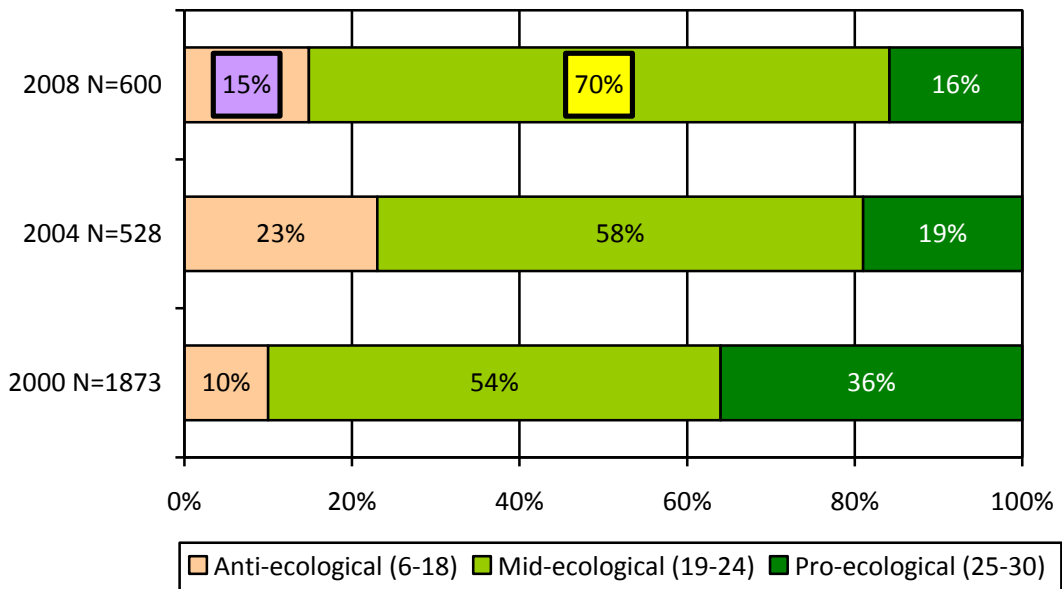


Figure 9: The 6-item NEP scale gained by Waikato people in 2000, 2004 & 2008

Similar to NEP studies across the world (see Aldrich et al. 2007), overall Waikato respondents agreed with pro-ecological statements and disagreed with anti-ecological statements. In this survey's results, the average respondents' attitudes fall between neither agree nor disagree and strongly pro-ecological, which is consistent with findings in other studies (Aldrich et al. 2007, 761).

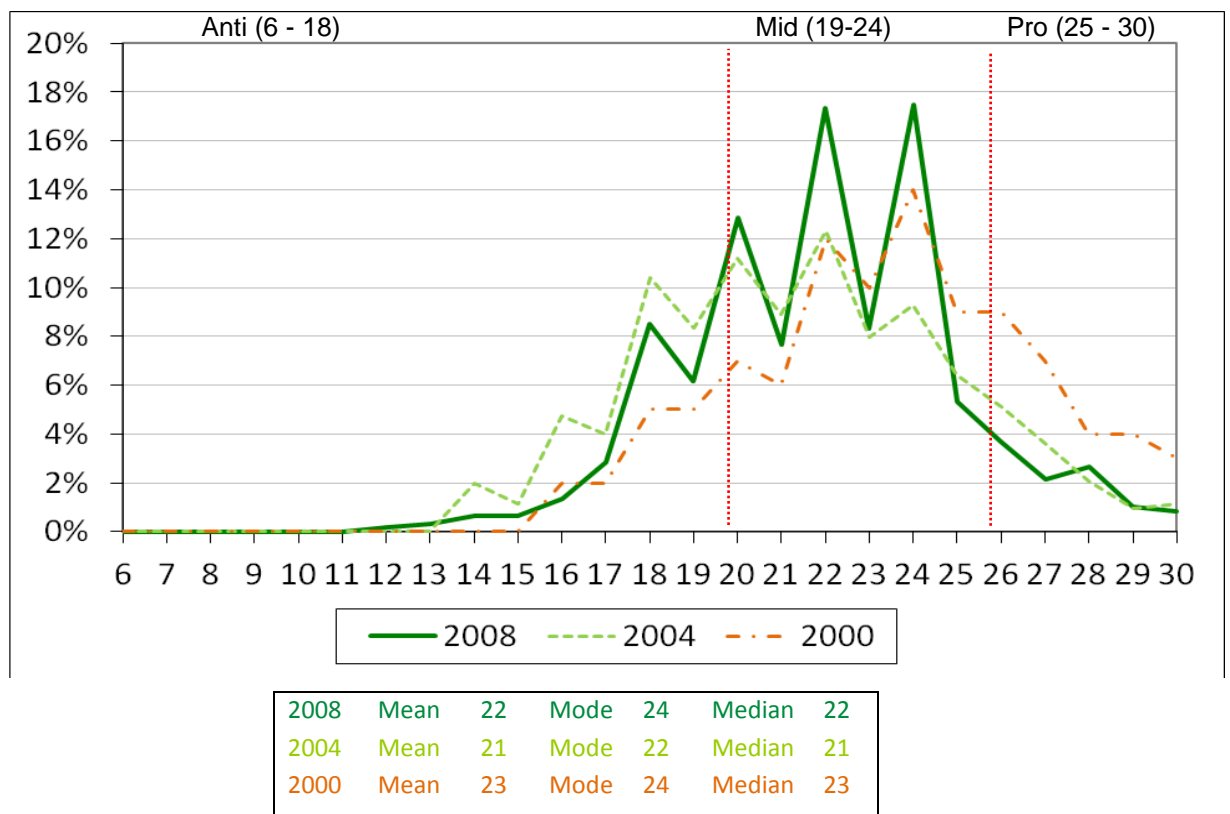


Figure 10: Range of 6-item NEP scale gained by Waikato people in 2000, 2004 & 2008

Results are given as the per cent of people giving each score, and then the mean, mode and median are calculated. For each survey the results for the mean, mode and median were similar with the lowest mean and median (21) in 2004 and the highest mean and median (23) in 2000.

In 2000 the NEP statements were asked as part of the Council's Environmental Awareness, Attitudes and Actions Survey, which was completely focussed on

environmental issues. Respondents would be exposed to the NEP scale after already been asked about the state of various parts of the environment and what issues concerned them. In comparison, in 2004 and 2008 the NEP statements were asked in a stand-alone survey, providing a more 'unaided' measure.

These results could reflect changing attitudes to environmental issues generally, as the 2003 and 2006 Environmental Awareness, Attitudes and Actions Surveys (EAAA Survey) have also recorded decreases in environmental awareness and attitudes amongst Waikato residents. To assess which of these alternative explanations is correct, the intention is to incorporate these statements into the next EAAA Survey scheduled for 2013.

Setting aside the 2000 results until an assessment is made as to whether they reflect questionnaire bias, it appears that approximately one in five or six people has an ongoing pro-ecological attitude towards the environment and one in four to seven people has an anti-ecological attitude. The majority of respondents sit in the mid-ecological range.

Dunlap et al (2000) noted that in the various results, age, gender, and education affected NEP scores. When analyzing underlying causes for attitudes and behaviours, demographic factors such as gender, age, income, education and employment are regarded as important (Lovelock 2010, 469 and Diamantopolous et al 2003). These have also been found to be important influences on environmental perception and behaviour. When the results for the 6-item NEP scale were analysed demographically and by area, significant differences were observed by Age, Education, Gender and District.

6.1.2.1 Age

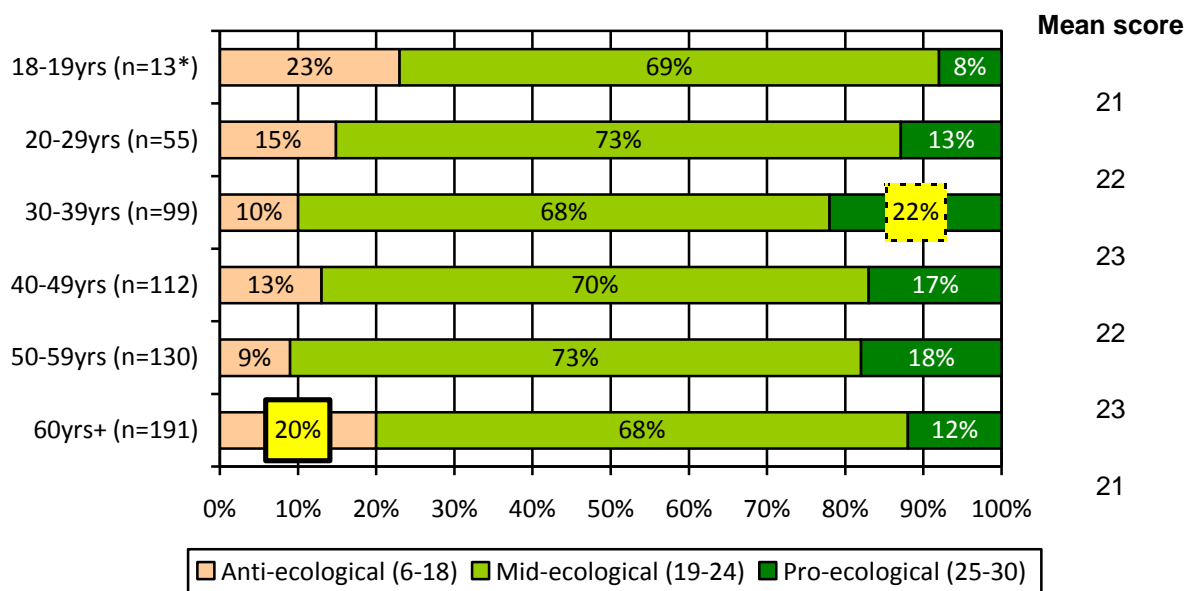
Those aged between 30 and 39 years are more likely to have a pro-ecological worldview (22% c.f. the total, 16% at the 95% confidence interval), while those aged 60 years and over are more likely to have a anti-ecological worldview (20% c.f. the total, 15% at the 99% confidence interval)

Lovelock (2010) observed that apart from the 15-24 year age group which had a low mean score, the NEP score declined with age. This holds true for the 2008 survey with a low mean score for 18-19 year olds, which rise for 20 to 39 year olds, increase amongst 50-59 year olds and then drop back to a low means score for 60 years and older. These differences in age group's ecological values may reflect the changing culture of New Zealand society over time and the influences on each group during their teenage and early adult years. If this is correct, further 6-item NEP scale surveys monitoring age characteristics should show increased NEP scores amongst those aged 60 years or older and decreasing NEP scores in the 20-29 year age group.

Diamantopolous et al (2003, 471) surveyed 33 studies that investigated linkages between age and environmental consciousness. Of those 33 studies, they found only two that showed a significant relationship in which younger people exhibited higher levels of knowledge. When they tested the hypothesis that age is not related to environmental knowledge, they found there were reasonably consistent results of a negative association between age and attitudes (Diamantopolous et al (2003, 471). The common understanding as to why younger people have more pro-ecological attitudes is that:

since solutions to environmental problems often are viewed as threatening the existing social order, possibly requiring substantial changes in traditional values, habitual behaviors, and existing institutions ... it is logical to expect youth to support environmental reform and accept pro-environmental ideologies more readily than their elders (Van Liere and Dunlap 1980, 183 cited in Diamantopolous et al 2003, 470).

Studies have also shown, however, that teenagers (such as those aged 18-19) hold conservative values at levels similar to those aged 60 years or older.



* Caution: Small sample base

Figure 11: The 6-item NEP scale by age

Significant differences per statement at the 99% confidence interval include,

- Those 60 years and older are more likely to agree that plants and animals exist primarily to be used by humans (28% c.f. the total, 21%) and that humans were meant to rule over the rest of nature (29% c.f. the total, 22%). This age group was less likely to strongly agree that the earth is like a spaceship with limited room and resources (5% c.f. the total, 14%) and that there are limits to economic growth even for developed countries like ours (4% c.f. the total, 8%).
- Those aged between 20 and 29 years are more likely to neither agree nor disagree that modifying the environment for human use seldom causes serious problems (20% c.f. the total, 8%), while those aged between 30 and 39 are more likely to strongly agree to this statement (7% c.f. the total, 3%).

Significant differences per statement at the 95% confidence interval include,

- Those aged between 40 and 49 years are more likely to strongly agree that there are limits to economic growth even for developed countries like ours (13% c.f. the total, 8%) and that plants and animals exist primarily to be used by humans (5% c.f. the total, 3%).
- Those aged between 30 and 39 years are more likely to strongly agree that the earth is like a spaceship with only limited room and resources (21% c.f. the total, 14%), while those aged between 20 and 29 years are more likely to neither agree nor disagree in this regard (9% c.f. the total, 3%).

6.1.2.2 Education

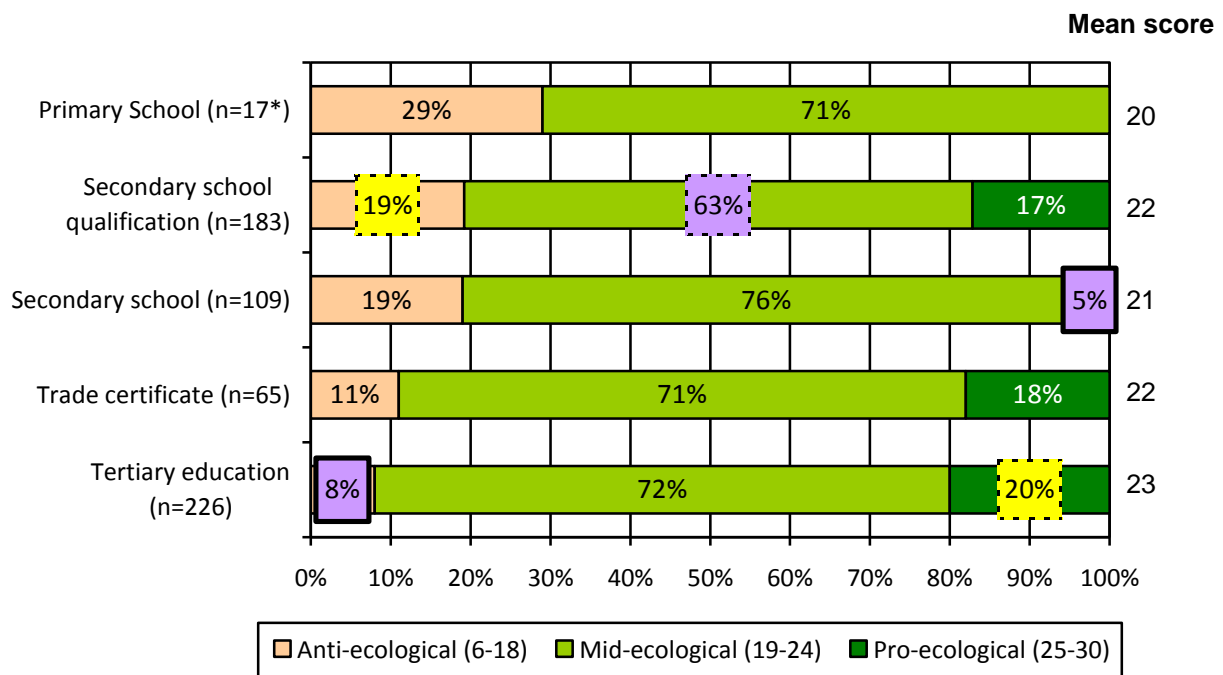
The impact of education on environmental attitudes has been investigated in a large number of studies and most studies have found that those who have attained higher educational qualifications score higher on all environmental themes (Diamantopolous et al 2003, 472). They suggest that:

... the higher-educated understand the issues involved more fully and, hence, are more concerned about environmental quality and more motivated to participate in environmentally responsible behaviors (Diamantopolous et al 2003, 472).

In their own research, however, Diamantopolous et al (2003, 475) found education was not a factor. Lovelock (2010, 477) found a significant difference in mean scores. In 2008 respondents with higher levels of education score higher with an increase in

mean scores seen from secondary school (21) to tertiary education (23). Those who hold secondary school qualification and trade certificates achieve a mean score of 22.

In the 2008 survey, as educational achievement levels rise, the 6-item NEP scores rise. Those holding tertiary qualifications are more likely to hold a pro-ecological worldview (20% c.f. the total, 16% at the 95% confidence interval) and less likely to hold an anti-ecological worldview (8% c.f. the total, 15% at the 99% confidence interval). Those with secondary school are less likely to have a pro-ecological worldview (5% c.f. the total, 16% at the 99% confidence interval). Those with secondary school qualification were more likely to hold an anti-ecological worldview (19% c.f. the total 15% at the 95% confidence interval) and less likely to hold a mid-ecological worldview (63% c.f. the total 70% at the 95% confidence interval).



* Caution: Small sample base

Figure 12: The 6-item NEP scale by educational qualification

Significant differences per statement at the 99% confidence interval include,

- Those with secondary school qualification are more likely to agree that modifying the environment for human use seldom causes serious problems (40% c.f. the total, 30%) and are more likely to neither agree nor disagree that the earth is like a spaceship with only limited room and resources (10% c.f. the total, 5%).
- Those with tertiary qualification are more likely to strongly disagree that modifying the environment for human use seldom causes serious problems (18% c.f. the total, 10%) and are less likely to agree that plants and animals exist primarily to be used by humans (13% c.f. the total, 21%). They are less likely to agree that humans were meant to rule over the rest of nature (16% c.f. the total, 22%) and less likely to agree that modifying the environment for human use seldom causes serious problems (21% c.f. the total, 30%). Those with tertiary qualification are less likely to disagree that the earth is like a spaceship with only limited room and resources (7% c.f. the total, 12%).

Significant differences per statement at the 95% confidence interval include,

- Those with secondary school are more likely to agree that plants and animals exist primarily to be used by humans (29% c.f. the total, 21%) and agree that humans were meant to rule over the rest of nature (30% c.f. the total, 22%).

- Those with secondary school qualification are more likely to disagree that the earth is like a spaceship with only limited room and resources (17% c.f. the total, 12%).
- Those with a trade certificate are more likely to strongly disagree that plants and animals exist primarily to be used by humans (22% c.f. the total, 13%).
- Those with tertiary qualification are more likely to disagree that plants and animals exist primarily to be used by humans (63% c.f. the total, 58%).

6.1.2.3 Gender

Despite males being found to have a greater level of environmental knowledge than females, females generally have been found to exhibit higher levels of environmentally conscious attitudes and behaviour (Diamantopolous et al 2003, 470). When they tested this finding by surveying British customers, they also found that females hold stronger environmental attitudes than males (Diamantopolous et al 2003, 477).

In his research, Lovelock (2010, 477) found that female respondents scored higher than male respondents. In the Council's 2008 6-item NEP scale survey male respondents were more likely to hold an anti-ecological worldview while females were less likely to have this approach (19% and 12% c.f. the total 15% respectively, at the 99% confidence interval)

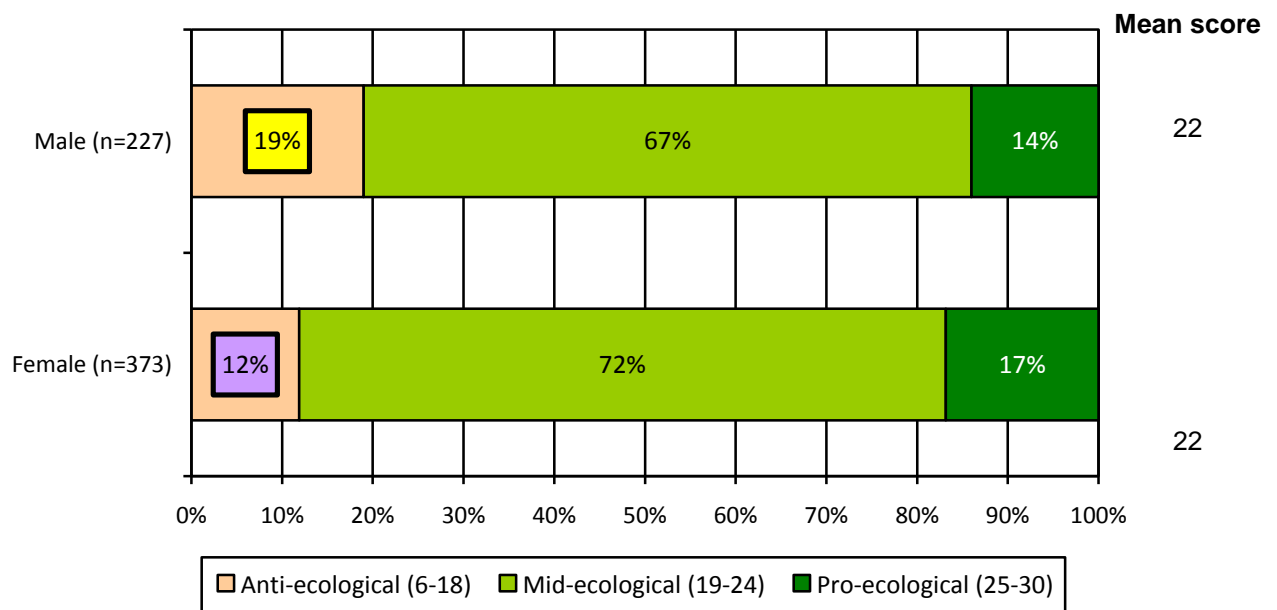


Figure 13: The 6-item NEP scale by gender

Significant differences per statement at the 99% confidence interval include,

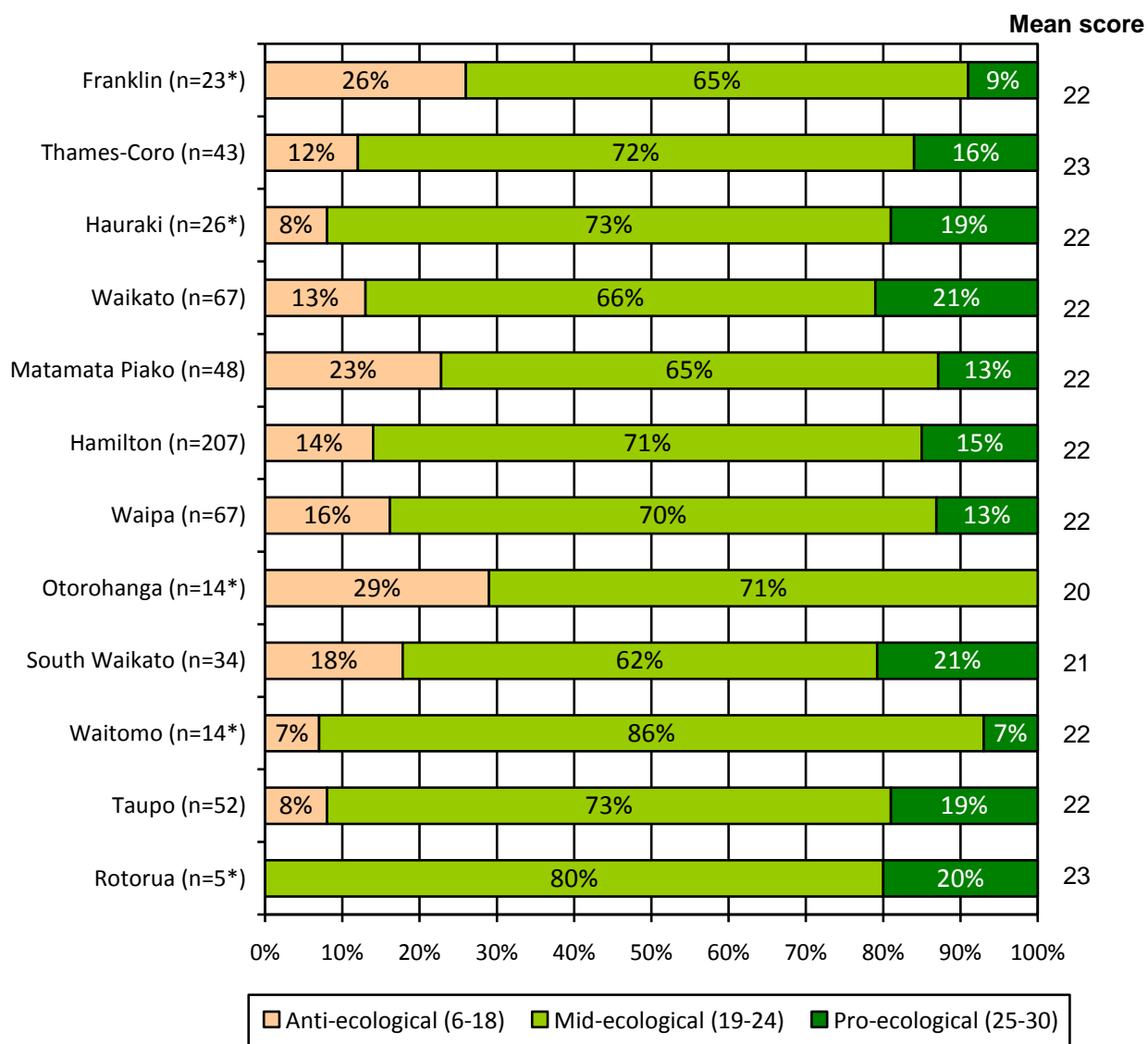
- Female respondents are more likely to strongly disagree that humans are meant to rule over the rest of nature (14% c.f. the total, 11%).

Significant differences per statement at the 95% confidence interval include,

- Male respondents are more likely to agree that modifying the environment for human use seldom causes serious problems (35% c.f. the total, 30%) and more likely to disagree that the balance of nature is very delicate and easily upset (11% c.f. the total 8%).
- Female respondents are more likely to neither agree nor disagree that the earth is like a spaceship with only limited room and resources (5% c.f. the total, 3%).

6.1.2.4 District

There were no significant differences measured by district across the range of basic NEP scores. Respondents in Thames-Coromandel District have the highest mean score (23). All territorial authorities' means are in the mid-ecological range.



* Caution: Small sample base

Figure 14: The 6-item NEP scale by district

Significant differences per statement at the 99% confidence interval include,

- Residents from Matamata-Piako district are more likely to neither agree nor disagree that the earth is like a spaceship with only limited room and resources (10% c.f. the total, 3%).

Significant differences per statement at the 95% confidence interval include,

- Thames-Coromandel residents strongly disagree that plants and animals exist primarily to be used by humans (23% c.f. the total, 13%)
- Matamata-Piako residents are more likely to agree that plants and animals exist primarily to be used by humans (33% c.f. the total, 21%)
- Residents from Taupo district are more likely to disagree that humans were meant to rule over the rest of nature (69% c.f. the total, 55%).
- Waikato district residents are more likely to strongly disagree that modifying the environment for human use seldom causes serious problems (18% c.f. the total, 10%) and strongly agree that the earth is like a spaceship with only limited room and resources (22% c.f. the total, 14%).

6.1.2.5 Rural- Urban locations

Very few studies analyse the results in terms of urban and rural locations. In general, these studies have found that urban or metropolitan residents are often significantly more environmentally concerned than rural residents. Fransson and Gärling (1999, 372) suggest that a reason for this difference is that “urban residents are more exposed to signs of environmental deterioration such as air pollution.”

There were no significant differences between urban and rural residents for the 6-item NEP scale.

6.2 Analysis of the Ecological Value Scale

An additional nine statements were also included in the 2008 survey and an Ecological Value scale calculated using the following groupings:

- Anti ecological – Scores in the range of 15-45
- Mid ecological – Scores in the range of 46-60
- Pro-ecological – Scores in the range of 61-75

6.2.1 Reliability of the Ecological Value scale

As noted in section 6.1.1 above, Cronbach's α has been used to assess the reliability and consistency of the statements that form the scale. A Cronbach's α of .7 is regarded as the lowest score for a scale to be considered reliable. Another way of assessing the consistency of the statements in a scale is to re-calculate the α with each of the statements missing. If the α is higher with the statement missing, then the scale is more reliable without that statement than if it were included.

It is also noted that while the scale was tested as being reliable as one scale, there are seven subthemes in the scale that can also be analysed separately. The Ecological Value scale was tested for reliability using Cronbach's α . With all 15 of the statements that form the scale, Cronbach's α was .669. The Cronbach's α for Standardized Items was .704. Figure 23 sets out the value of the α when each of the statements is removed from the scale. This indicates that the scale is more reliable when all of the statements are included.

Table 12: Cronbach's α when statements are removed from the Ecological Value scale

Statement Deleted from the Scale	Cronbach's α
The balance of nature is very delicate and easily upset	.645
Modifying the environment for human use seldom causes serious problems	.663
Plants and animals exist primarily to be used by humans	.648
The earth is like a spaceship with only limited room and resources	.649
There are limits to economic growth even for developed countries like ours	.666
Humans were meant to rule over the rest of nature	.662
Present generations of humans have no moral duties and obligations to future human generations	.660
The so-called 'ecological crisis' facing humankind has been greatly exaggerated	.640
We must take stronger measures to conserve our nation's resources	.646
Humans have moral duties and obligations to other animal species	.659
Environmental regulations have placed unfair burdens on industry	.643
Natural resources should be used primarily to provide for basic needs rather than material wealth	.665
Humans have the right to alter nature to satisfy wants and desires	.653
Nature is valuable for its own sake	.657
Humans live on a planet with limited room and resources	.652

6.2.2 The Ecological Value scale for 2008 – Waikato people's environmental attitudes in 2008

By evaluating respondents on additional aspects of ecological involvement, the proportion of anti-ecological scores dropped from 15 per cent in the 6-item NEP scale to four per cent in the Ecological Value scale.

The larger set of environmental statements that encompassed other fundamental indicators such as social justice and attitude to regulation show that when all factors that influence environmental behaviour are considered, only one in 20 Waikato respondents has an anti-ecological attitude.

However, although anti-ecological scores decreased and respondents shifted into the mid ecological category, expanding the 6-item NEP scale into an Ecological Value scale did not show a similar proportion of people moving into the pro-ecological category.

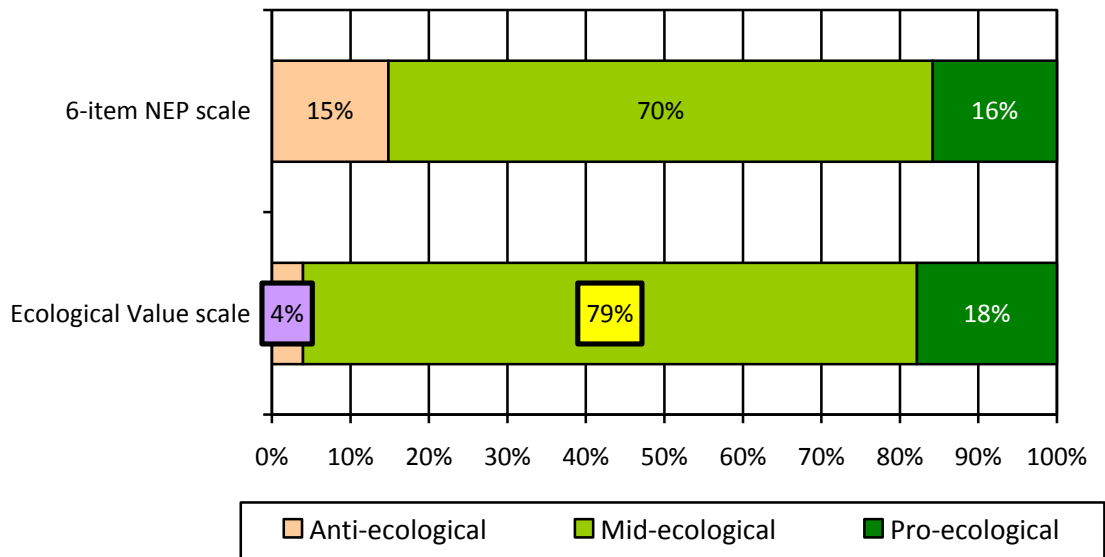


Figure 15: Ecological Value scale - Environmental attitude scores gained by Waikato people in 2008

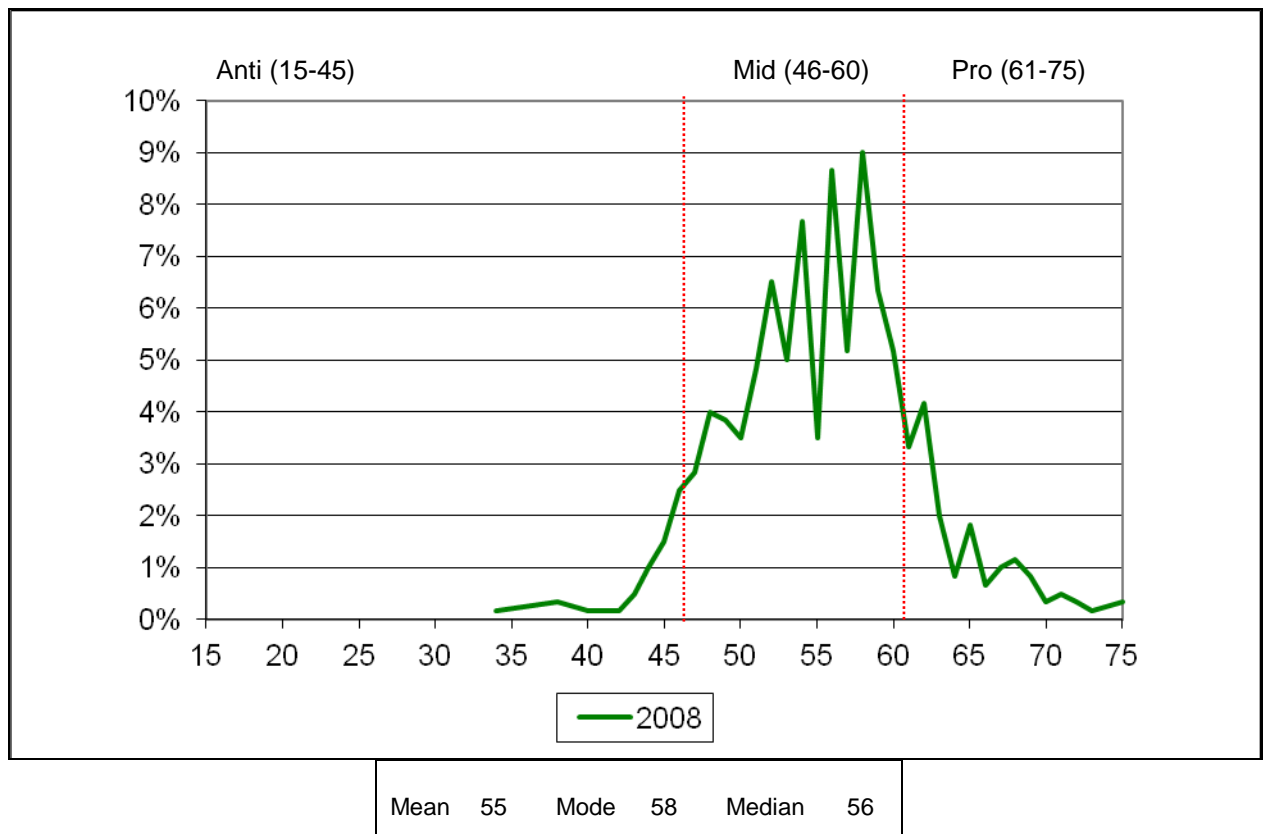
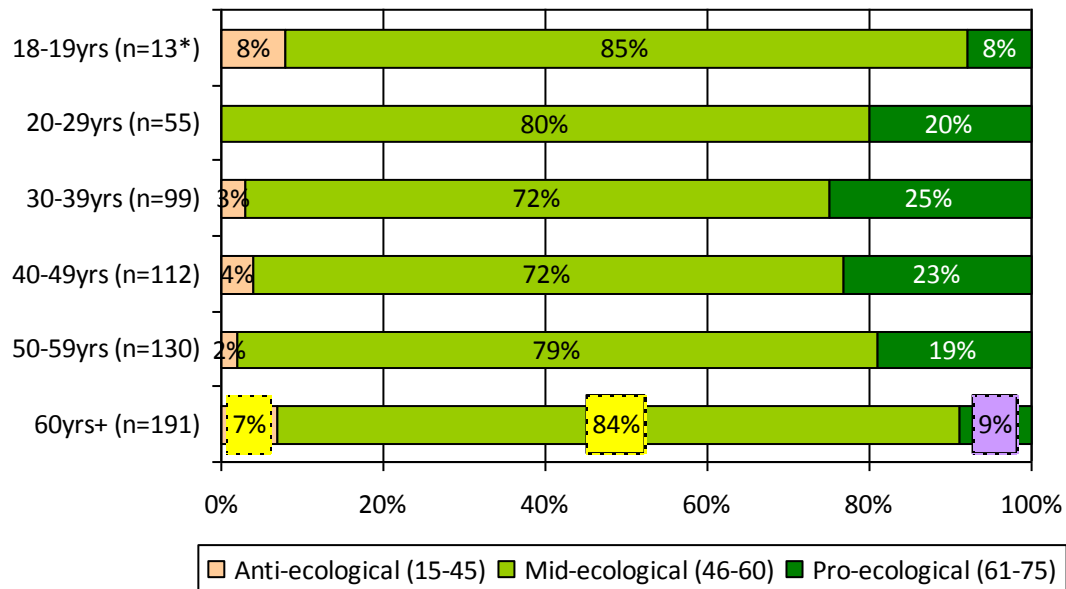


Figure 16: Ecological Value scale - Range of scores gained by Waikato people

6.2.2.1 Age

As with the 6-item NEP scale, in the Ecological Value scale the lowest means scores were found amongst 18 to 19 year olds and those aged 60 years and older.

Those aged 20 to 29 years had no anti-ecological scores. The most pro-ecological age groups were 30-39 years and 40-49 years. Those aged 60 years or older are more likely to hold a mid-ecological world view (84% c.f. the total, 79% at the 95% confidence interval) or an anti-ecological world view (7% c.f. the total, 4% at the 95% confidence interval).



* Caution: Small sample base

Figure 17: Ecological Value scale by age

In terms of additional statements included for the Ecological Value scale significant differences at the 99% confidence interval include,

- Those who are between 20 and 29 years old are more likely to neither agree nor disagree that humans have moral duties and obligations to other animal species (7% c.f. the total, 2%).
- Those who are aged between 40 and 49 years are more likely to strongly agree that humans have moral duties and obligations to other animal species (23% c.f. the total, 15%). Residents in this age group are more likely to strongly disagree that the present generations of humans have no moral duties and obligations to future human generations (32% c.f. the total, 19%), and are less likely to agree that natural resources should be used primarily to provide for basic needs rather than material wealth (57% c.f. the total, 71%).
- Those who are 60 years and older are more likely to agree that nature is valuable for its own sake (83% c.f. the total 75%), but less likely to strongly agree with the same statement (9% c.f. the total, 18%). A similar pattern emerge with residents in this age group more likely to agree that humans have moral duties and obligations to other animal species (85% c.f. the total, 78%) but less likely to strongly agree with the statement (9% c.f. the total, 15%).
- Residents in this 60 years and older age group are more likely to agree that the so-called 'ecological crisis' facing humankind has been greatly exaggerated (36% c.f. the total, 28%). They are also more likely to agree that environmental regulations have placed unfair burdens on industry (41% c.f. the total, 34%).

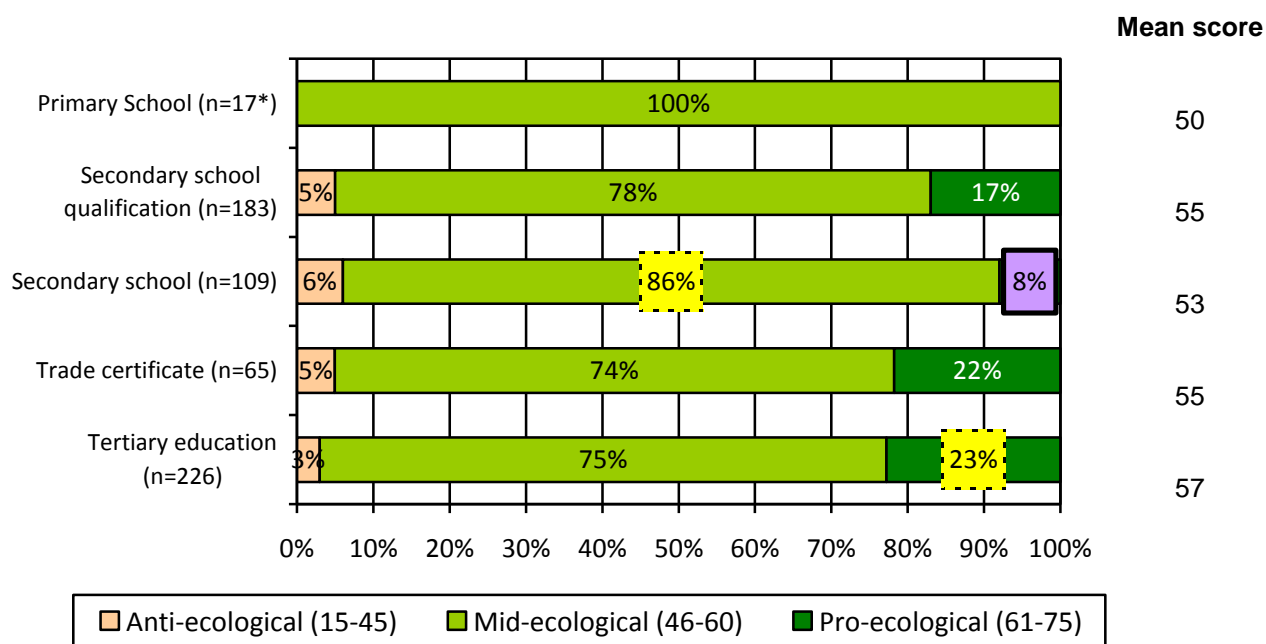
They are more likely to agree that the present generations of humans have no moral duties and obligations to future human generations (19% c.f. the total, 13%).

Additional statements for the Ecological Value scale with significant differences at the 95% confidence interval include,

- Residents who are aged between 20 and 29 years are more likely to strongly disagree that humans have the right to alter nature to satisfy wants and desires (20% c.f. the total, 10%). They are more likely to neither agree nor disagree that the so-called 'ecological crisis' facing humankind has been greatly exaggerated (20% c.f. the total, 10%) and neither agree nor disagree that natural resources should be used primarily to provide for basic needs rather than material wealth (13% c.f. the total, 6%).
- Those aged between 30 and 39 years are more likely to strongly agree that nature is valuable for its own sake (25% c.f. the total, 18%). They are more likely to disagree that present generations of humans have no moral duties and obligations to future human generations (73% c.f. the total, 62%).
- Residents aged between 40 and 49 years are more likely to disagree that the so-called 'ecological crisis' facing humankind has been greatly exaggerated (56% c.f. the total, 47%). They are more likely to strongly disagree that environmental regulations have placed unfair burdens on industry (8% c.f. the total, 4%).
- Those aged 60 years and older are more likely to strongly agree that the so-called 'ecological crisis' facing humankind has been greatly exaggerated (7% c.f. the total, 5%).

6.2.2.2 Education

As with the 6-item NEP scale in the Ecological Value scale, as the level of educational achievement increases, the score increases. Those with secondary school qualifications are less likely to hold a pro-ecological worldview (8% c.f. the total, 18% at the 99% confidence interval) and more likely to hold a mid-ecological world view (86% c.f. the total 79% at the 95% confidence interval). Respondents with tertiary qualifications are more likely to hold a pro-ecological world-view (23% c.f. the total, 18% at the 95% confidence interval)



* Caution: Small sample base

Figure 18: Ecological Value scale by education

In terms of additional statements used for the Ecological Value scale significant differences at the 99% confidence interval include,

- Residents with tertiary qualification are more likely to strongly disagree that present generations of humans have no moral duties and obligations to future human generations (24% c.f. the total, 19%) and are more likely to disagree that the so-called 'ecological crisis' facing humankind has been greatly exaggerated (54% c.f. the total, 47%). They are more likely to strongly agree that nature is valuable for its own sake (23% c.f. the total, 18%).
- Tertiary qualified residents are less likely to agree that environmental regulations have placed unfair burdens on industry (26% c.f. the total, 34%) and more likely to disagree (50% c.f. the total, 44% at the 95% confidence interval) or strongly disagree to this statement (8% c.f. the total, 4% at the 99% confidence interval).

Ecological Value scale statements with significant differences at the 95% confidence interval include,

- Residents with secondary school are more likely to agree that present generations of humans have no moral duties and obligations to future human generations (19% c.f. the total, 13%). They are more likely to agree that we must take stronger measures to conserve our nation's resources (82% c.f. the total, 73%), and neither agree nor disagree that natural resources should be used primarily to provide for basic needs rather than material wealth (11% c.f. the total, 6%).
- Residents with secondary school are less likely to strongly agree that nature is valuable for its own sake (11% c.f. the total, 18%) and more likely to strongly disagree that humans live on a planet with limited room and resources (23% c.f. the total, 15%).
- Residents with trade certification are more likely to disagree that humans live on a planet with limited room and resources (25% c.f. the total, 15%).
- Those with tertiary qualification are more likely to agree that humans live on a planet with limited room and resources (76% c.f. the total, 71%).

6.2.2.3 Gender

As with the 6-item NEP scale in the Ecological Value scale, male residents are more likely to hold an anti-ecological worldview (6% c.f. the total, 4% at the 95% confidence interval) while female residents are less likely to hold an anti-ecological worldview (3% c.f. the total, 4% at the 95% confidence interval).

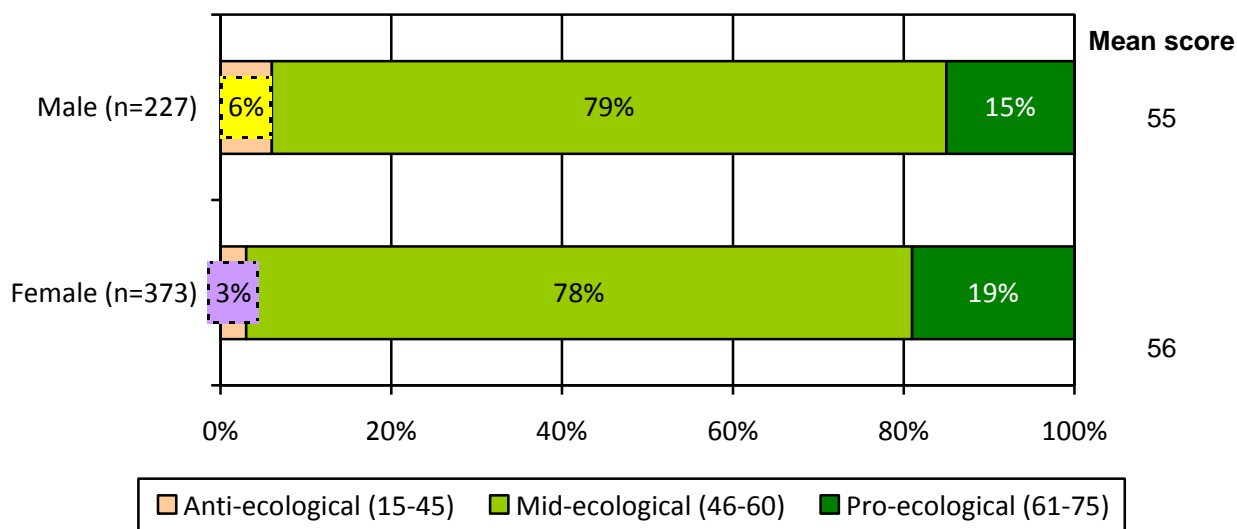


Figure 19: Ecological Value scale by gender

In terms of additional statements from the Ecological Value scale that score significant differences at the 99% confidence interval include,

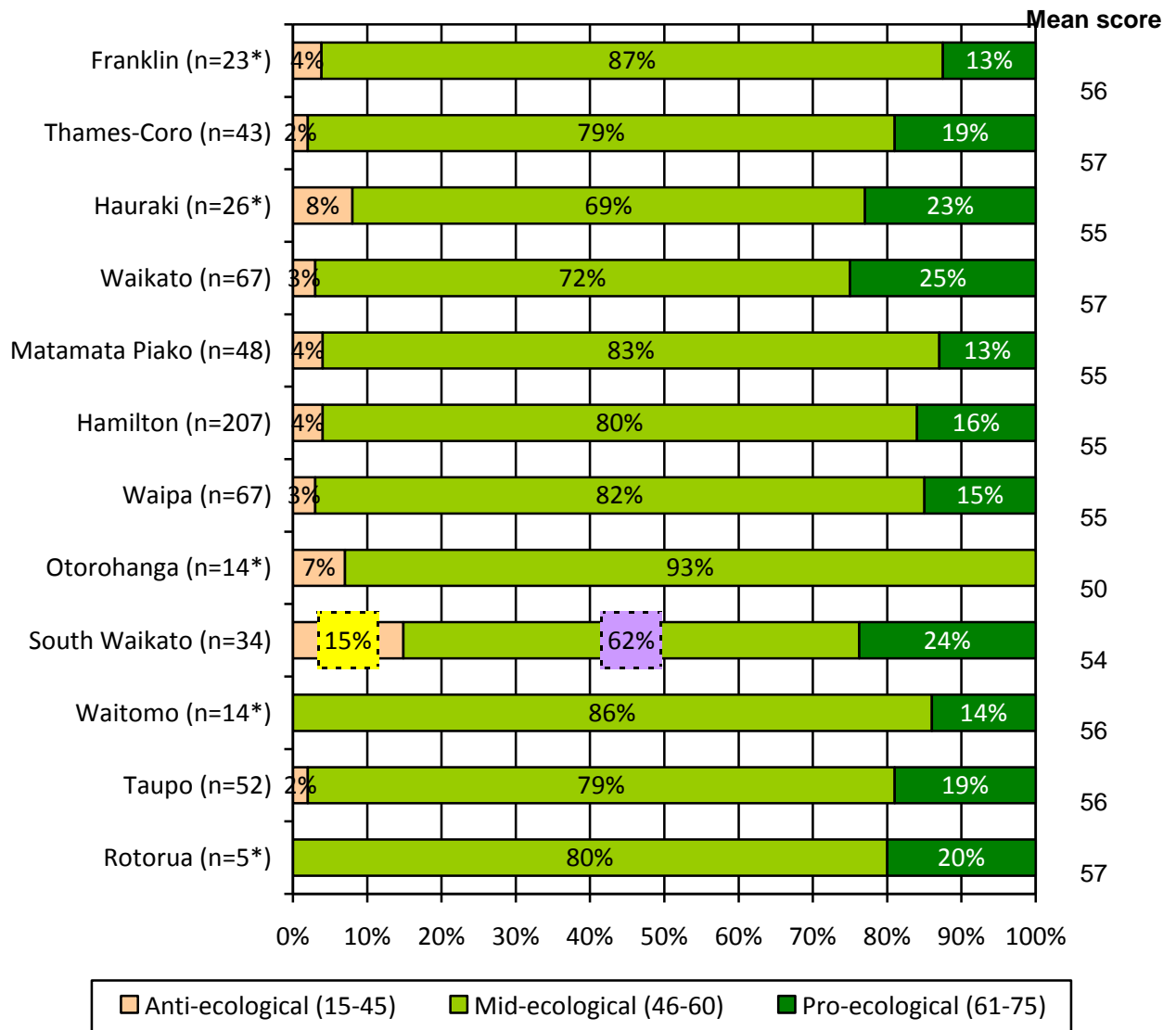
- Female residents are more likely to disagree that humans have the right to alter nature to satisfy wants and desires (65% c.f. the total, 60%)
- Male residents are more likely to agree that humans have the right to alter nature to satisfy want and desires (25% c.f. the total, 20%) and that the so-called 'eco-logical crisis' facing humankind has been greatly exaggerated (34% c.f. the total, 28%). Male residents are more likely to disagree that we must take stronger measures to conserve our nation's resources (7% c.f. the total, 5%).

Additional statements that are included in the Ecological Value scale with significant differences at the 95% confidence interval include,

- Female residents are more likely to strongly agree that nature is valuable for its own sake (20% c.f. the total, 18%) and are more likely to strongly agree that we must take stronger measures to conserve our nation's resources (23% c.f. the total, 20%)
- Male residents are more likely to strongly agree that the so-called 'ecological crisis' facing humankind has been greatly exaggerated (7% c.f. the total, 5%) and are more likely to disagree that the present generations of humans have no moral duties and obligations to future human generations (68% c.f. the total, 62%).

6.2.2.4 District

In the Ecological Value scale residents from the South Waikato district are more likely to hold an anti-ecological worldview (15% c.f. the total, 4% at the 95% confidence interval) and less likely to hold a mid-ecological worldview (62% c.f. the total, 79% at the 95% confidence interval). Otorohanga district has the lowest mean score (50) albeit of a small sample base.



* Caution: Small sample base

Figure 20: Ecological Value scale by district

In terms of additional statements significant differences at the 99% confidence interval include,

- Residents from Matamata-Piako districts are less likely to strongly agree that present generations of humans have no moral duties and obligations to future human generations (4% c.f. the total, 19%) and more likely to strongly disagree that natural resources should be used primarily to provide for basic needs rather than material wealth (4% c.f. the total, 1%).

Ecological Value scale statements with significant differences at the 95% confidence interval include,

- Residents from Waipa district are more likely to disagree that humans have the right to alter nature to satisfy wants and desires (73% c.f. the total, 60%)
- Residents from Matamata-Piako districts are more likely to strongly agree that humans have the right to alter nature to satisfy want and desires (4% c.f. the total, 1%) and are more likely to agree that humans have moral duties and obligations to other animal species (90% c.f. the total, 78%).
- Residents from Hamilton City district are more likely to neither agree nor disagree that nature is valuable for its own sake (4% c.f. the total, 2%) and are more likely to strongly agree that the so-called 'ecological crisis' facing humankind has been greatly exaggerated (7% c.f. the total, 5%)

- Residents from Waikato district are less likely to agree that environmental regulations have placed unfair burdens on industry (21% c.f. the total, 34%) and more likely to strongly agree that humans live on a planet with limited room and resources (18% c.f. the total, 10%).
- Residents from Taupo district are more likely to strongly agree that humans live on a planet with limited room and resources (17% c.f. the total, 10%) and are more likely to strongly disagree that present generations of humans have no moral duties and obligations to future human generations (31% c.f. the total, 19%).

6.2.2.5 Rural / Urban location

In the Ecological Value scale rural residents are more likely to hold an anti-ecological worldview (7% c.f. the total, 4% at the 95% confidence interval) while urban residents are less likely to have an anti-ecological worldview (3% c.f. the total, 4% at the 95% confidence interval).

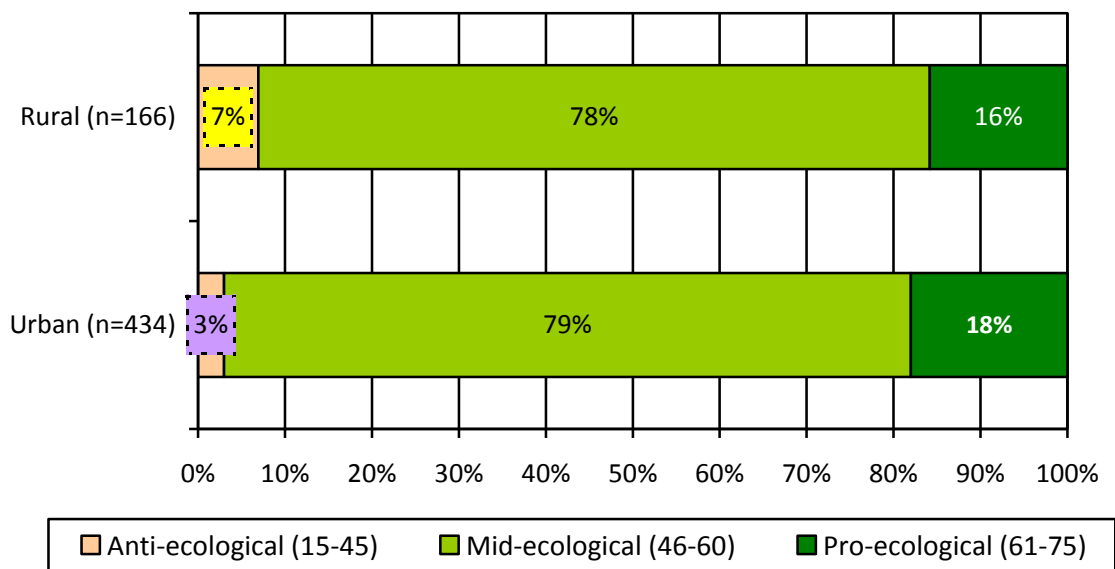


Figure 21: Ecological Value scale by location

No clear significant differences were measured for the additional Ecological Value scale statements.

7 General comments from people

When the proposal for the NEP Survey was presented to Waikato Regional Council's Environment Committee in April 2008, it received an unfavourable reception as there were concerns that the statements were too abstract. There was also concern that there would be no variation in people's responses as the statements were too loaded.

This caused some concern that the public might view the survey in the same negative light. It was decided to reduce any public negativity by providing survey participants with the following explanation at the end of the survey:

For your information, this survey is used to understand a person's underlying beliefs that affect how they make decisions about the environment. These questions are drawn from an internationally-tested survey that has been shown to reveal that information. Waikato Regional Council uses this information to help with communications and education about environmental issues facing the region.

The participants were then asked if there were any more comments they would like to make regarding the survey or the topics they had just been discussing.

The comments received are set out in Appendix III. Each bullet point is one person's response. The comments range from their opinions on the survey to Waikato Regional Council in general to general environmental issues. They are grouped accordingly for ease of reference.

There was some criticism from respondents concerning the nature of the statements. Some people considered that the statements were loaded, rigged, ambiguous, confusing, generalised and contradictory, leaving no room for grey areas. Others found the statements varied, enjoyable, thought-provoking, awesome, and a great survey because it took animals and nature into account.

There has been no analysis as to people's responses and attitudes as measured in the survey. One of the respondents who held negative views about the statements because they were loaded was surprised to learn that not everyone gave pro-ecological answers.

8 Summary and Conclusions

The 2008 NEP Survey provides data for the repeat study on Waikato people's underlying ecological attitudes. In 2008, the survey was of 600 people aged 18 years and older who were residing in the Waikato region.

Since the four-yearly survey began in 2000, there have been no significant differences in the 6-item NEP scale scores for the Waikato population. On a range of 6 to 30 where 6 is completely anti-ecological and 30 is completely pro-ecological, Waikato respondents have a mean score of 21-23. In 2008, the mean score is 22 reflecting a mid-ecological worldview.

Additional ecological statements were assembled from environmental attitudes research and compiled into an Ecological Value scale. This scale is similar to the revised New Ecological Paradigm scale that Dunlap and his colleagues developed in 1990, but includes a slightly wider range of themes. One of the reasons for developing this expanded scale was to develop more insight into the range of environmental values held by the population. When Dunlap and van Liere first developed the NEP Scale, it focused on a new environmental paradigm that was emerging from the Dominant Social Paradigm of the 1970s. As environmental awareness has increased, new environmental value systems are emerging that move further along the continuum. Dunlap and van Liere's original NEP Scale considered three ecological values and the statements were either from the Dominant Social Paradigm or middle ecological. The Ecological Value scale includes statements to understand the Waikato people's attitude towards duties to non-humans, environmental regulation and social justice.

Using the Ecological Value scale to gain a wider range of underlying ecological values, the results were similar to the 6-item NEP scale, but there were fewer people who had an anti-ecological score (4% compared with 15% for the 6-item NEP scale).

Similar to other research on environmental attitudes and values, certain sections of the Waikato population were more likely to have pro-ecological attitudes than others. In the cluster analysis that divided the sample into three clusters, the most pro-ecological cluster is more likely to be people living in urban areas, aged 20-39, earning \$60,001-\$150,000 per year, holding a tertiary qualification, and living in Hamilton. The cluster more likely to be anti-ecological is more likely to be people aged over 60 years, having left secondary school with no qualification, earning less than \$30,000 per year and living in Matamata-Piako and South Waikato Districts.

These results indicate that while there is some variation in the data, there are some consistent demographic features that appear to influence respondents underlying ecological values. Waikato residents are more likely to have pro-ecological values if they hold tertiary qualifications, are urban-based, and are not over 60 years of age or under 20 years of age.

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Appendix I: Copy of questionnaire

J538 Waikato Regional Council NEP

Questionnaire # _____

Q.1 Hello, this is _____ calling from Versus Research on behalf of Waikato Regional Council. I'm doing an important interview about people's perceptions of the environment. Would you mind helping me with this?

SCREENER: Firstly can I confirm that you are aged 18 or over?

IF NOT: Is there someone around who is who would like to help us out?

PROMPT IF NEEDED: It should only take about 5 minutes.

PROMPT IF NEEDED: Is there a more convenient time that I could call back?

PROMPT IF NEEDED: I am calling from Versus Research, an independent research company contracted by Waikato Regional Council.

Q1: First of all, can you tell me which District you live in?

READ OUT IF NECESSARY, SINGLE ANSWER ONLY

- | | |
|---|---|
| <input type="checkbox"/> 01 Franklin | <input type="checkbox"/> 07 Waipa |
| <input type="checkbox"/> 02 Thames-Coromandel | <input type="checkbox"/> 08 South Waikato |
| <input type="checkbox"/> 03 Hauraki | <input type="checkbox"/> 09 Otorohanga |
| <input type="checkbox"/> 04 Waikato | <input type="checkbox"/> 10 Waitomo |
| <input type="checkbox"/> 05 Hamilton | <input type="checkbox"/> 11 Rotorua |
| <input type="checkbox"/> 06 Matamata-Piako | <input type="checkbox"/> 12 Taupo |

Q.2 Do you live in town or in the country?

- | | |
|--|---|
| <input type="checkbox"/> 1 Country (Rural) | <input type="checkbox"/> 2 Town (Urban) |
|--|---|

Q.3 I am now going to read out several statements. Can you please tell me whether you agree or disagree with each of them?

PROBE EVERY TIME: Is that *strongly* agree/disagree or just agree/disagree?

PROMPT IF NECESSARY: Even though the statements might sound a bit 'different', please answer them as best as possible.

SINGLE ANSWER PER STATEMENT

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree	Don't Know
The balance of nature is very delicate and easily upset	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
Modifying the environment for human use seldom causes serious problems	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
Plants and animals exist primarily to be used by	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6

humans						
The Earth is like a spaceship with only limited room and resources	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
There are limits to economic growth even for developed countries like ours	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
Humans were meant to rule over the rest of nature	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6

Q.4 Can you please tell me whether you agree or disagree with *these* statements?

**PROBE EVERY TIME: Is that *strongly* agree/disagree or just agree/disagree?
 PROMPT IF NECESSARY: Even though the statements might sound a bit 'different', please answer them as best as possible.
 SINGLE ANSWER PER STATEMENT**

[READ ANSWERS IN RANDOM ORDER]

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree	Don't Know
Present generations of humans have NO moral duties and obligations to future human generations	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
The so-called 'ecological crisis' facing humankind has been greatly exaggerated	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
We must take stronger measures to conserve our nation's resources	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
Plants and animals have as much right as humans to exist (EXTRA)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
Humans have moral duties and obligations to other animal species	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
Environmental regulations have placed unfair burdens on industry.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
Natural resources should be used primarily to provide for basic needs rather than material wealth	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
Humans have the right to alter nature to satisfy wants and desires.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
Nature is valuable for its own sake	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
Humans live on a planet with limited room and resources	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6

Q.5 We're almost at the end now. I just need to ask some questions about you, so we can be sure we've talked to a wide cross-section of people. This all remains completely confidential.

Could you please tell me which one of the following age groups you fit into?

READ OUT, SINGLE ANSWER ONLY

- | | |
|-------------------------------------|---|
| <input type="checkbox"/> 1 18-19yrs | <input type="checkbox"/> 4 40-49yrs |
| <input type="checkbox"/> 2 20-29yrs | <input type="checkbox"/> 5 50-59yrs |
| <input type="checkbox"/> 3 30-39yrs | <input type="checkbox"/> 6 60yrs or older |

**Q.6 What is your highest educational qualification?
READ OUT, SINGLE ANSWER ONLY**

- | | |
|---|---|
| <input type="checkbox"/> 1 Primary school | <input type="checkbox"/> 4 Trade Certificate |
| <input type="checkbox"/> 2 Secondary School qualification | <input type="checkbox"/> 5 Tertiary qualification |
| <input type="checkbox"/> 3 Secondary School | |

Q.7 And which of the following groups best matches your total household income before tax?

READ OUT, SINGLE ANSWER ONLY

- | | |
|--|--|
| <input type="checkbox"/> 1 \$0 to \$30,000 | <input type="checkbox"/> 5 \$150,001 + |
| <input type="checkbox"/> 2 \$30,001 to \$60,000 | <input type="checkbox"/> 6 Refused (DON'T READ OUT) |
| <input type="checkbox"/> 3 \$60,001 to \$90,000 | <input type="checkbox"/> 7 Don't know (DON'T READ OUT) |
| <input type="checkbox"/> 4 \$90,001 to \$150,000 | |

Q.8 What is your occupation?

IF FARMER: What type? (i.e. dairy, drystock, sheep, etc)

Q.9 And to which ethnic group do you belong?

READ OUT 1-4 ONLY, MULTIPLE ANSWER ALLOWED

- | | |
|--|---|
| <input type="checkbox"/> 1 European / Pakeha | <input type="checkbox"/> 5 Other (Specify) (DON'T READ OUT) |
| <input type="checkbox"/> 2 Maori | <input type="checkbox"/> 6 New Zealander (DON'T READ OUT) |
| <input type="checkbox"/> 3 Pacific Island | <input type="checkbox"/> 7 Don't Know (DON'T READ OUT) |
| <input type="checkbox"/> 4 Asian | <input type="checkbox"/> 8 Refused (DON'T READ OUT) |

[IF THE ANSWER TO QUESTION 9 IS NOT 5, THEN SKIP TO QUESTION 11]

Q.10 Other Ethnicity:

Q.11 Which of these statements would best describe you?

READ OUT, SINGLE ANSWER ONLY

- 1 I have some Maori ancestry OR 3 Refused. (Do not read out.)
- 2 I have no Maori ancestry

Q.12 Thank you very much for your time.

For your information, this survey is used to understand a person's underlying beliefs that affect how they make decisions about the environment. These questions are drawn from an internationally-tested survey that has been shown to reveal that information. Waikato Regional Council uses this information to help with communications and education about environmental issues facing the region.

Are there any more comments you would like to make regarding the survey or the topics we have just been discussing?

Q.13 That's the end of the survey. Thanks again for your help and have a great evening.

RECORD GENDER

- 1 Male 2 Female

Appendix II: NEP calculations and data sheet

Balance:

The balance of nature is very delicate and easily upset¹⁴

	Total	Gender		Age						Territorial Authority										Rural/Urban		Education						
		Male	Female	18-19yrs	20-29yrs	30-39yrs	40-49yrs	50-59yrs	60yrs +	Franklin District	Thames-Coro. District	Hauraki District	Waikato District	Matamata-Piako District	Hamilton City	Waipa District	Otorohanga District	South Waikato District	Waitomo District	Taupo District	Rotorua District	Country (Rural)	Town (Urban)	Primary school	Secondary School qualification	Secondary School	Trade Certificate	Tertiary qualification
Unweighted Base	600	227	373	13	55	99	112	130	191	23	43	26	67	48	207	67	14	34	14	52	5	166	434	17	183	109	65	226
Strongly Disagree	2 0%	0 0%	2 1%	0 0%	0 0%	1 1%	1 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 0%	0 0%	0 0%	1 3% +++	0 0%	0 0%	0 0%	1 1%	1 0%	0 0%	0 0%	0 0%	0 0%	2 1% +
Disagree	49 8%	26 11% ++	23 6%	1 8%	1 2% -	8 8%	8 7%	10 8%	21 11% +	2 9%	2 5%	1 4%	4 6%	6 13%	17 8%	4 6%	6 43%	3 9%	0 0%	4 8%	0 0%	18 11%	31 7%	0 0%	17 9%	10 9%	6 9%	16 7%
Neither Agree nor Disagree	8 1%	1 0%	7 2%	0 0%	2 4%	0 0%	2 2%	4 3% +	0 0%	0 0%	1 2%	0 0%	0 0%	0 0%	4 2%	2 3%	0 0%	0 0%	1 7%	0 0%	0 0%	1 1%	7 2%	0 0%	3 2%	1 1%	0 0%	5 2%
Agree	411 69%	151 67%	260 70%	9 69%	42 76%	67 68%	70 63%	89 68%	134 70%	18 78%	30 70%	19 73%	43 64%	30 63%	143 69%	49 73%	8 57%	23 68%	10 71%	35 67%	3 60%	112 67%	299 69%	16 94%	121 66%	81 74%	39 60%	154 68%
Strongly Agree	129 22%	49 22%	80 21%	3 23%	10 18%	22 22%	31 28% +	27 21%	36 19%	3 13%	10 23%	6 23%	20 30% +	12 25%	41 20%	12 18%	0 0%	7 21%	3 21%	13 25%	2 40%	34 20%	95 22%	1 6%	42 23%	17 16% -	20 31% +	49 22%
Don't Know	1 0%	0 0%	1 0%	0 0%	0 0%	1 1% ++	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 0%	0 0%	0 0%	0 0%	0 0%	

¹⁴ + is significantly more likely at 90% confidence level – so if this survey is repeated at the same time and place in one out of 10 surveys the results will not be within the margin of error for each of the results
 ++ is significantly more likely at 95% confidence level - (so 1 in 20 results will be outside the margin of error)
 +++ is significantly more likely at 99% confidence level- (so 1 in 100 results will be outside the margin of error)
 - is significantly less likely at 90% confidence level
 -- is significantly less likely at 95% confidence level
 --- is significantly less likely at 99% confidence level

Domination of humans over nature:

Plants and animals exist primarily to be used by humans

	Total	Gender		Age						Territorial Authority										Rural/Urban		Education						
		Male	Female	18-19yrs	20-29yrs	30-39yrs	40-49yrs	50-59yrs	60yrs or older	Franklin District	Thames-Coro. District	Hauraki District	Waikato District	Matamata-Piako District	Hamilton City	Waipa District	Otorohanga District	South Waikato District	Waitomo District	Taupo District	Rotorua District	Country (Rural)	Town (Urban)	Primary school	Secondary School qualification	Secondary School	Trade Certificate	Tertiary qualification
Unweighted Base	600	227	373	13	55	99	112	130	191	23	43	26	67	48	207	67	14	34	14	52	5	166	434	17	183	109	65	226
Strongly Disagree	75 13%	22 10%	53 14%	2 15%	6 11%	15 15%	14 13%	22 17% +	16 8% --	3 13%	10 23% ++	4 15%	7 10%	5 10%	24 12%	7 10%	1 7%	4 12%	2 14%	8 15%	0 0%	16 10%	59 14%	0 0%	3 2%	5 5%	2 3%	5 2%
Disagree	347 58%	131 58%	216 58%	8 62%	33 60%	63 64%	70 63%	71 55%	102 53%	15 65%	26 60%	16 62%	39 58%	23 48%	120 58%	39 58%	7 50%	22 65%	5 36%	30 58%	5 100%	104 63%	243 56%	13 76%	40 22%	32 29% ++	10 15%	30 13% ---
Neither Agree nor Disagree	31 5%	10 4%	21 6%	1 8%	5 9%	2 2%	3 3%	9 7%	11 6%	1 4%	3 7%	0 0%	3 4%	3 6%	14 7%	3 4%	0 0%	0 0%	3 21%	1 2%	0 0%	8 5%	23 5%	0 0%	11 6%	9 8%	3 5%	15 7%
Agree	125 21%	54 24%	71 19%	1 8%	11 20%	16 16%	17 15%	26 20%	54 28% +++	4 17%	4 9% -	5 19%	15 22%	16 33% ++	41 20%	15 22%	4 29%	6 18%	4 29%	11 21%	0 0%	32 19%	93 21%	4 24%	108 59%	56 51%	36 55%	143 63% ++
Strongly Agree	15 3%	8 4%	7 2%	1 8%	0 0%	2 2%	6 5% ++	0 0%	6 3%	0 0%	0 0%	0 0%	1 1%	1 2%	6 3%	3 4%	0 0%	2 6%	0 0%	2 4%	0 0%	3 2%	12 3%	0 0%	21 11%	7 6% --	14 22% ++	33 15%
Don't Know	7 1%	2 1%	5 1%	0 0%	0 0%	1 1%	2 2%	2 2%	2 1%	0 0%	0 0%	1 4%	2 3%	0 0%	2 1%	0 0%	2 14%	0 0%	0 0%	0 0%	0 0%	3 2%	4 1%	0 0%	0 0%	0 0%	0 0%	0 0%

Humans were meant to rule over the rest of nature

	Total	Gender		Age						Territorial Authority										Rural/Urban		Education						
		Male	Female	18-19yrs	20-29yrs	30-39yrs	40-49yrs	50-59yrs	60yrs or older	Franklin District	Thames-Coro. District	Hauraki District	Waikato District	Matamata-Piako District	Hamilton City	Waipa District	Otorohanga District	South Waikato District	Waitomo District	Taupo District	Rotorua District	Country (Rural)	Town (Urban)	Primary school	Secondary School qualification	Secondary School	Trade Certificate	Tertiary qualification
Unweighted Base	600	227	373	13	55	99	112	130	191	23	43	26	67	48	207	67	14	34	14	52	5	166	434	17	183	109	65	226
Strongly Disagree	64 11%	13 6%	51 14%	1 8%	4 7%	13 13%	14 13%	11 8%	21 11%	3 13%	4 9%	3 12%	9 13%	5 10%	27 13%	2 3%	1 7%	2 6%	1 7%	6 12%	1 20%	14 8%	50 12%	0 0%	7 4%	3 3%	3 5%	6 3%
Disagree	331 55%	123 54%	208 56%	6 46%	29 53%	56 57%	66 59%	86 66%	88 46%	14 61%	25 58%	14 54%	32 48%	30 63%	102 49%	44 66%	7 50%	15 44%	8 57%	36 69%	4 80%	97 58%	234 54%	9 53%	42 23%	33 30%	13 20%	37 16%
Neither Agree nor Disagree	30 5%	16 7%	14 4%	0 0%	4 7%	5 5%	3 3%	10 8%	8 4%	0 0%	2 5%	2 8%	5 7%	2 4%	11 5%	5 7%	0 0%	1 3%	2 14%	0 0%	0 0%	6 4%	24 6%	1 6%	17 9%	10 9%	3 5%	21 9%
Agree	134 22%	58 26%	76 20%	5 38%	15 27%	18 18%	23 21%	18 14%	55 29%	5 22%	10 23%	5 19%	15 22%	9 19%	53 26%	11 16%	5 36%	11 32%	3 21%	7 13%	0 0%	39 23%	95 22%	7 41%	99 54%	54 50%	39 60%	132 58%
Strongly Agree	19 3%	8 4%	11 3%	1 8%	2 4%	5 5%	3 3%	2 2%	6 3%	1 4%	1 2%	2 8%	3 4%	0 0%	6 3%	2 3%	0 0%	3 9%	0 0%	1 2%	0 0%	4 2%	15 3%	0 0%	18 10%	9 8%	7 11%	30 13%
Don't Know	22 4%	9 4%	13 3%	0 0%	1 2%	2 2%	3 3%	3 2%	13 7%	0 0%	1 2%	0 0%	3 4%	2 4%	8 4%	3 4%	1 7%	2 6%	0 0%	2 4%	0 0%	6 4%	16 4%	0 0%	0 0%	0 0%	0 0%	0 0%

Plants and animals have as much right as humans to exist.

	Total	Gender		Age						Territorial Authority										Rural/Urban		Education						
		Male	Female	18-19yrs	20-29yrs	30-39yrs	40-49yrs	50-59yrs	60yrs or older	Franklin District	Thames-Coro. District	Hauraki District	Waikato District	Matamata-Piako District	Hamilton City	Waipa District	Otorohanga District	South Waikato District	Waitomo District	Taupo District	Rotorua District	Country (Rural)	Town (Urban)	Primary school	Secondary School qualification	Secondary School	Trade Certificate	Tertiary qualification
Unweighted Base	600	227	373	13	55	99	112	130	191	23	43	26	67	48	207	67	14	34	14	52	5	166	434	17	183	109	65	226
Strongly Disagree	4 1%	3 1%	1 0%	0 0%	0 0%	1 1%	1 1%	0 0%	2 1%	0 0%	0 0%	0 0%	1 1%	1 2%	1 0%	1 1%	0 0%	0 0%	0 0%	0 0%	0 0%	3 2% ++	1 0% --	0 0%	2 1%	0 0%	0 0%	2 1%
Disagree	34 6%	18 8% +	16 4% -	0 0%	2 4%	3 3%	5 4%	5 4%	19 10% +++	1 4%	4 9%	2 8%	2 3%	1 2%	16 8%	1 1%	1 7%	4 12%	1 7%	1 2%	0 0%	6 4%	28 6%	1 6%	10 5%	6 6%	5 8%	12 5%
Neither Agree nor Disagree	15 3%	6 3%	9 2%	0 0%	1 2%	1 1%	3 3%	3 2%	7 4%	2 9%	0 0%	0 0%	2 3%	1 2%	6 3%	2 3%	0 0%	0 0%	0 0%	1 2%	1 20%	4 2%	11 3%	0 0%	5 3%	0 0%	3 5%	7 3%
Agree	425 71%	163 72%	262 70%	10 77%	37 67%	71 72%	78 70%	96 74%	133 70%	16 70%	32 74%	18 69%	49 73%	35 73%	146 71%	49 73%	12 86%	23 68%	10 71%	34 65%	1 20%	123 74%	302 70%	13 76%	123 67%	90 83% +++	42 65%	157 69%
Strongly Agree	117 20%	35 15% --	82 22% ++	3 23%	15 27%	23 23%	25 22%	26 20%	25 13% ---	4 17%	7 16%	6 23%	13 19%	10 21%	37 18%	13 19%	0 0%	5 15%	3 21%	16 31% ++	3 60%	28 17%	89 21%	3 18%	41 22%	11 10% ---	15 23%	47 21%
Don't Know	5 1%	2 1%	3 1%	0 0%	0 0%	0 0%	0 0%	0 0%	5 3% +++	0 0%	0 0%	0 0%	0 0%	0 0%	1 0%	1 1%	1 7%	2 6% +++	0 0%	0 0%	0 0%	2 1%	3 1%	0 0%	2 1%	2 2%	0 0%	1 0%

Humans have the right to alter nature to satisfy wants and desires.

	Total	Gender		Age						Territorial Authority										Rural/Urban		Education						
		Male	Female	18-19yrs	20-29yrs	30-39yrs	40-49yrs	50-59yrs	60yrs or older	Franklin District	Thames-Coro. District	Hauraki District	Waikato District	Matamata-Piako District	Hamilton City	Waipa District	Otorohanga District	South Waikato District	Waitomo District	Taupo District	Rotorua District	Country (Rural)	Town (Urban)	Primary school	Secondary School qualification	Secondary School	Trade Certificate	Tertiary qualification
Unweighted Base	600	227	373	13	55	99	112	130	191	23	43	26	67	48	207	67	14	34	14	52	5	166	434	17	183	109	65	226
Strongly Disagree	61 10%	20 9%	41 11%	0 0%	11 20% ++	10 10%	13 12%	16 12%	11 6% --	4 17%	5 12%	5 19%	5 7%	3 6%	21 10%	2 3% --	1 7%	3 9%	4 29%	7 13%	1 20%	12 7%	49 11%	1 6%	2 1%	2 2%	1 2%	0 0%
Disagree	362 60%	121 53% ---	241 65% +++	9 69%	25 45% --	66 67%	71 63%	79 61%	112 59%	15 65%	27 63%	13 50%	40 60%	33 69%	118 57%	49 73% ++	6 43%	18 53%	6 43%	34 65%	3 60%	102 61%	260 60%	6 35%	36 20%	28 26% +	12 18%	36 16% -
Neither Agree nor Disagree	42 7%	19 8%	23 6%	0 0%	6 11%	5 5%	7 6%	11 8%	13 7%	0 0%	0 0%	0 0%	5 7%	4 8%	19 9%	4 6%	3 21%	1 3%	1 7%	4 8%	1 20%	11 7%	31 7%	0 0%	10 5%	8 7%	8 12% +	16 7%
Agree	118 20%	57 25% +++	61 16% ---	3 23%	12 22%	17 17%	19 17%	23 18%	44 23%	4 17%	11 26%	8 31%	16 24%	6 13%	39 19%	11 16%	3 21%	11 32% +	2 14%	7 13%	0 0%	37 22%	81 19%	9 53%	111 61%	63 58%	34 52%	145 64%
Strongly Agree	6 1%	3 1%	3 1%	1 8%	0 0%	1 1%	1 1%	0 0%	3 2%	0 0%	0 0%	0 0%	0 0%	2 4% ++	3 1%	0 0%	0 0%	1 3%	0 0%	0 0%	0 0%	2 1%	4 1%	0 0%	19 10%	7 6%	9 14%	26 12%
Don't Know	11 2%	7 3% +	4 1% -	0 0%	1 2%	0 0%	1 1%	1 1%	8 4% +++	0 0%	0 0%	0 0%	1 1%	0 0%	7 3% ++	1 1%	1 7%	0 0%	1 7%	0 0%	0 0%	2 1%	9 2%	1 6%	5 3%	1 1%	1 2%	3 1%

Duties to non-humans:

Nature is valuable for its own sake

	Total	Gender		Age						Territorial Authority										Rural/Urban		Education						
		Male	Female	18-19yrs	20-29yrs	30-39yrs	40-49yrs	50-59yrs	60yrs or older	Franklin District	Thames-Coro. District	Hauraki District	Waikato District	Matamata-Piako District	Hamilton City	Waipa District	Otorohanga District	South Waikato District	Waitomo District	Taupo District	Rotorua District	Country (Rural)	Town (Urban)	Primary school	Secondary School qualification	Secondary School	Trade Certificate	Tertiary qualification
Unweighted base	600	227	373	13	55	99	112	130	191	23	43	26	67	48	207	67	14	34	14	52	5	166	434	17	183	109	65	226
Strongly Disagree	1 0%	1 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 1%	0 0%	0 0%	0 0%	0 0%	1 2% +++	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 1%	0 0%	0 0%	1 1%	0 0%	0 0%	0 0%
Disagree	23 4%	8 4%	15 4%	3 23%	4 7%	6 6%	3 3%	2 2%	5 3%	3 13%	1 2%	1 4%	1 1%	0 0%	10 5%	2 3%	0 0%	1 3%	0 0%	4 8%	0 0%	6 4%	17 4%	0 0%	6 3%	5 5%	2 3%	10 4%
Neither Agree nor Disagree	12 2%	5 2%	7 2%	0 0%	3 5% +	1 1%	3 3%	1 1%	4 2%	0 0%	1 2%	0 0%	1 1%	0 0%	8 4% ++	2 3%	0 0%	0 0%	0 0%	0 0%	0 0%	1 1%	11 3%	0 0%	4 2%	3 3%	2 3%	3 1%
Agree	451 75%	180 79% +	271 73% -	9 69%	38 69%	66 67% --	83 74%	97 75%	158 83% +++	17 74%	35 81%	20 77%	47 70%	39 81%	151 73%	52 78%	14 100%	26 76%	10 71%	37 71%	3 60%	130 78%	321 74%	15 88%	142 78%	87 80%	48 74%	159 70% --
Strongly Agree	105 18%	30 13% --	75 20% ++	0 0%	10 18%	25 25% ++	23 21%	30 23% +	17 9% --	3 13%	5 12%	4 15%	18 27% ++	8 17%	36 17%	11 16%	0 0%	4 12%	4 29%	10 19%	2 40%	26 16%	79 18%	2 12%	27 15%	12 11% --	11 17%	53 23% +++
Don't know	8 1%	3 1%	5 1%	1 8%	0 0%	1 1%	0 0%	0 0%	6 3% +++	0 0%	1 2%	1 4%	0 0%	0 0%	2 1%	0 0%	0 0%	3 9% +++	0 0%	1 2%	0 0%	2 1%	6 1%	0 0%	3 2%	2 2%	2 3%	1 0%

Humans have moral duties and obligations to other animal species

	Total	Gender		Age						Territorial Authority										Rural/Urban		Education						
		Male	Female	18-19yrs	20-29yrs	30-39yrs	40-49yrs	50-59yrs	60yrs or older	Franklin District	Thames-Coro. District	Hauraki District	Waikato District	Matamata-Piako District	Hamilton City	Waipa District	Otorohanga District	South Waikato District	Waitomo District	Taupo District	Rotorua District	Country (Rural)	Town (Urban)	Primary school	Secondary School qualification	Secondary School	Trade Certificate	Tertiary qualification
Unweighted base	600	227	373	13	55	99	112	130	191	23	43	26	67	48	207	67	14	34	14	52	5	166	434	17	183	109	65	226
Strongly Disagree	3 1%	0 0%	3 1%	0 0%	0 0%	1 1%	1 1%	1 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 1%	0 0%	0 0%	0 0%	0 0%	1 2%	0 0%	1 1%	2 0%	0 0%	1 1%	0 0%	0 0%	2 1%
Disagree	25 4%	10 4%	15 4%	1 8%	3 5%	3 3%	3 3%	7 5%	8 4%	3 13%	1 2%	1 4%	2 3%	0 0%	9 4%	4 6%	0 0%	2 6%	1 7%	2 4%	0 0%	11 7% +	14 3% -	2 12%	7 4%	4 4%	3 5%	9 4%
Neither Agree nor Disagree	12 2%	5 2%	7 2%	0 0%	4 7% +++	1 1%	2 2%	4 3%	1 1% -	0 0%	0 0%	1 4%	2 3%	2 4%	4 2%	2 3%	0 0%	1 3%	0 0%	0 0%	0 0%	3 2%	9 2%	1 6%	3 2%	2 2%	2 3%	4 2%
Agree	467 78%	182 80%	285 76%	12 92%	42 76%	73 74%	80 71% -	98 75% -	162 85% +++	18 78%	33 77%	22 85%	48 72%	43 90% ++	156 75%	56 84%	14 100%	27 79%	10 71%	37 71%	3 60%	131 79%	336 77%	13 76%	144 79%	91 83%	48 74%	171 76%
Strongly Agree	90 15%	29 13%	61 16%	0 0%	6 11%	20 20%	26 23% +++	20 15% ---	18 9% ---	2 9%	9 21%	2 8%	15 22% +	2 4% --	34 16%	5 7% -	0 0%	4 12%	3 21%	12 23% +	2 40%	20 12%	70 16%	1 6%	27 15%	12 11%	11 17%	39 17%
Don't know	3 1%	1 0%	2 1%	0 0%	0 0%	1 1%	0 0%	0 0%	2 1%	0 0%	0 0%	0 0%	0 0%	1 2%	2 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 1%	0 0%	1 1%	0 0%	0 0%	1 2%	1 0%

Eco-Crisis:

Modifying the environment for human use seldom causes serious problems

	Total	Gender		Age							Territorial Authority										Rural/Urban		Education					
		Male	Female	18-19yrs	20-29yrs	30-39yrs	40-49yrs	50-59yrs	60yrs or older	Franklin District	Thames-Coro. District	Hauraki District	Waikato District	Matamata-Piako District	Hamilton City	Waipa District	Otorohanga District	South Waikato District	Waitomo District	Taupo District	Rotorua District	Country (Rural)	Town (Urban)	Primary school	Secondary School qualification	Secondary School	Trade Certificate	Tertiary qualification
Unweighted base	600	227	373	13	55	99	112	130	191	23	43	26	67	48	207	67	14	34	14	52	5	166	434	17	183	109	65	226
Strongly Disagree	62 10%	15 7%	47 13%	1 8%	7 13%	15 15%	14 13%	12 9%	13 7%	2 9%	4 9%	4 15%	12 18%	3 6%	22 11%	6 9%	0 0%	4 12%	1 7%	4 8%	0 0%	15 9%	47 11%	0 0%	5 3%	5 5%	2 3%	6 3%
Disagree	272 45%	105 46%	167 45%	1 8%	14 25%	45 45%	62 55%	71 55%	79 41%	9 39%	20 47%	11 42%	29 43%	18 38%	100 48%	33 49%	7 50%	17 50%	5 36%	22 42%	1 20%	75 45%	197 45%	8 47%	62 34%	44 40%	17 26%	48 21%
Neither Agree nor Disagree	48 8%	20 9%	28 8%	2 15%	11 20%	4 4%	6 5%	9 7%	16 8%	0 0%	4 9%	3 12%	7 10%	6 13%	13 6%	7 10%	2 14%	2 6%	0 0%	3 6%	1 20%	18 11%	30 7%	4 24%	26 14%	16 15%	3 5%	20 9%
Agree	179 30%	79 35%	100 27%	8 62%	19 35%	26 26%	24 21%	34 26%	68 36%	10 43%	10 23%	8 31%	17 25%	17 35%	63 30%	16 24%	4 29%	9 26%	6 43%	18 35%	1 20%	49 30%	130 30%	5 29%	81 44%	41 38%	34 52%	111 49%
Strongly Agree	18 3%	5 2%	13 3%	1 8%	3 5%	7 7%	5 4%	2 2%	0 0%	2 9%	3 7%	0 0%	1 1%	2 4%	4 2%	2 3%	0 0%	0 0%	1 7%	2 4%	1 20%	5 3%	13 3%	0 0%	9 5%	3 3%	9 14%	41 18%
Don't know	21 4%	3 1%	18 5%	0 0%	1 2%	2 2%	1 1%	2 2%	15 8%	0 0%	2 5%	0 0%	1 1%	2 4%	5 2%	3 4%	1 7%	2 6%	1 7%	3 6%	1 20%	4 2%	17 4%	0 0%	0 0%	0 0%	0 0%	0 0%

The so-called 'ecological crisis' facing humankind has been greatly exaggerated

	Total	Gender		Age						Territorial Authority										Rural/Urban		Education						
		Male	Female	18-19yrs	20-29yrs	30-39yrs	40-49yrs	50-59yrs	60yrs or older	Franklin District	Thames-Coro. District	Hauraki District	Waikato District	Matamata-Piako District	Hamilton City	Waipa District	Otorohanga District	South Waikato District	Waitomo District	Taupo District	Rotorua District	Country (Rural)	Town (Urban)	Primary school	Secondary School qualification	Secondary School	Trade Certificate	Tertiary qualification
Unweighted base	600	227	373	13	55	99	112	130	191	23	43	26	67	48	207	67	14	34	14	52	5	166	434	17	183	109	65	226
Strongly Disagree	29 5%	7 3%	22 6%	0 0%	2 4%	8 8% +	7 6%	9 7%	3 2% --	2 9%	3 7%	1 4%	5 7%	2 4%	11 5%	2 3%	0 0%	1 3%	0 0%	2 4%	0 0%	7 4%	22 5%	0 0%	9 5%	7 6%	3 5%	9 4%
Disagree	283 47%	99 44%	184 49%	5 38%	26 47%	50 51%	63 56% ++	59 45%	80 42% -	13 57%	23 53%	10 38%	34 51%	26 54%	97 47%	34 51%	2 14%	14 41%	4 29%	25 48%	1 20%	77 46%	206 47%	10 59%	53 29%	35 32%	20 31%	47 21% ---
Neither Agree nor Disagree	61 10%	20 9%	41 11%	2 15%	11 20% ++	10 10%	9 8%	17 13%	12 6% --	2 9%	4 9%	0 0%	10 15%	4 8%	26 13%	8 12%	0 0%	1 3%	2 14%	3 6%	1 20%	15 9%	46 11%	1 6%	18 10%	11 10%	8 12%	23 10%
Agree	165 28% +++	78 34% +++	87 23% ---	6 46%	15 27%	22 22%	25 22%	28 22%	69 36% +++	4 17%	10 23%	10 38%	14 21%	11 23%	52 25%	18 27%	9 64%	13 38%	5 36%	17 33%	2 40%	55 33% +	110 25% -	2 12%	83 45%	45 41%	30 46%	123 54% +++
Strongly Agree	28 5%	16 7% ++	12 3% --	0 0%	0 0%	3 3%	4 4%	7 5%	14 7% ++	1 4%	1 2%	1 4%	0 0%	2 4%	15 7% ++	1 1%	2 14%	2 6%	1 7%	2 4%	0 0%	7 4%	21 5%	0 0%	10 5%	5 5%	1 2%	13 6%
Don't know	34 6%	7 3% --	27 7% ++	0 0%	1 2%	6 6%	4 4%	10 8%	13 7%	1 4%	2 5%	4 15%	4 6%	3 6%	6 3%	4 6%	1 7%	3 9%	2 14%	3 6%	1 20%	5 3% -	29 7% +	4 24%	10 5%	6 6%	3 5%	11 5%

Environmental Regulation:

Environmental regulations have placed unfair burdens on industry.

	Total	Gender		Age						Territorial Authority										Rural/Urban		Education						
		Male	Female	18-19yrs	20-29yrs	30-39yrs	40-49yrs	50-59yrs	60yrs or older	Franklin District	Thames-Coro. District	Hauraki District	Waikato District	Matamata-Piako District	Hamilton City	Waipa District	Otorohanga District	South Waikato District	Waitomo District	Taupo District	Rotorua District	Country (Rural)	Town (Urban)	Primary school	Secondary School qualification	Secondary School	Trade Certificate	Tertiary qualification
Unweighted base	600	227	373	13	55	99	112	130	191	23	43	26	67	48	207	67	14	34	14	52	5	166	434	17	183	109	65	226
Strongly Disagree	25 4%	8 4%	17 5%	0 0%	2 4%	6 6%	9 8% ++	7 5%	1 1% ---	2 9%	2 5%	1 4%	4 6%	1 2%	10 5%	1 1%	0 0%	2 6%	0 0%	2 4%	0 0%	6 4%	19 4%	0 0%	5 3% ++	1 1%	0 0%	2 1%
Disagree	266 44%	95 42%	171 46%	5 38%	28 51%	51 52%	53 47%	58 45%	71 37% --	10 43%	20 47%	12 46%	36 54%	25 52%	91 44%	35 52%	0 0%	13 38%	3 21%	20 38%	1 20%	76 46%	190 44%	9 53%	72 39% +	42 39%	22 34%	59 26% ---
Neither Agree nor Disagree	69 12%	31 14%	38 10%	4 31%	7 13%	8 8%	12 11%	14 11%	24 13%	2 9%	4 9%	4 15%	8 12%	5 10%	29 14%	6 9%	1 7%	2 6%	2 14%	5 10%	1 20%	15 9%	54 12%	2 12%	20 11%	10 9%	11 17%	26 12%
Agree	204 34%	82 36%	122 33%	4 31%	18 33%	30 30%	33 29%	40 31%	79 41% +++	7 30%	14 33%	9 35%	14 21% --	15 31%	65 31%	21 31%	12 86%	13 38%	8 57%	23 44%	3 60%	61 37%	143 33%	3 18%	74 40%	45 41%	30 46%	114 50% ++
Strongly Agree	8 1%	5 2%	3 1%	0 0%	0 0%	0 0%	1 1%	4 3% +	3 2% +	1 4%	0 0%	0 0%	0 0%	0 0%	3 1%	2 3%	1 7%	1 3%	0 0%	0 0%	0 0%	2 1%	6 1%	0 0%	5 3%	2 2%	1 2%	17 8% +++
Don't know	28 5%	6 3% -	22 6% +	0 0%	0 0%	4 4%	4 4%	7 5%	13 7% +	1 4%	3 7%	0 0%	5 7%	2 4%	9 4%	2 3%	0 0%	3 9%	1 7%	2 4%	0 0%	6 4%	22 5%	3 18%	7 4%	9 8% ++	1 2%	8 4%

We must take stronger measures to conserve our nation's resources

	Total	Gender		Age						Territorial Authority										Rural/Urban		Education						
		Male	Female	18-19yrs	20-29yrs	30-39yrs	40-49yrs	50-59yrs	60yrs or older	Franklin District	Thames-Coro. District	Hauraki District	Waikato District	Matamata-Piako District	Hamilton City	Waipa District	Otorohanga District	South Waikato District	Waitomo District	Taupo District	Rotorua District	Country (Rural)	Town (Urban)	Primary school	Secondary School qualification	Secondary School	Trade Certificate	Tertiary qualification
Unweighted base	600	227	373	13	55	99	112	130	191	23	43	26	67	48	207	67	14	34	14	52	5	166	434	17	183	109	65	226
Strongly Disagree	2 0%	1 0%	1 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 1% ++	0 0%	0 0%	0 0%	0 0%	1 2% ++	0 0%	0 0%	1 7%	0 0%	0 0%	0 0%	0 0%	2 1% ++	0 0%	0 0%	2 1% ++	0 0%	0 0%	0 0%
Disagree	27 5%	17 7% +++	10 3% ---	1 8%	0 0%	4 4%	5 4%	7 5%	10 5%	0 0%	2 5%	3 12%	2 3%	3 6%	9 4%	4 6%	0 0%	3 9%	0 0%	1 2%	0 0%	11 7%	16 4%	0 0%	7 4%	3 3%	4 6%	13 6%
Neither Agree nor Disagree	9 2%	5 2%	4 1%	0 0%	0 0%	1 1%	3 3%	2 2%	3 2%	0 0%	1 2%	0 0%	0 0%	1 2%	4 2%	2 3%	1 7%	0 0%	0 0%	0 0%	0 0%	3 2%	6 1%	0 0%	4 2%	0 0%	1 2%	4 2%
Agree	438 73%	171 75%	267 72%	11 85%	43 78%	68 69%	75 67%	93 72%	148 77% +	19 83%	33 77%	18 69%	47 70%	37 77%	152 73%	49 73%	12 86%	20 59% -	8 57%	40 77%	3 60%	125 75%	313 72%	13 76%	129 70%	89 82% ++	51 78%	156 69% -
Strongly Agree	117 20%	33 15% --	84 23% ++	1 8%	12 22%	25 25%	27 24%	28 22%	24 13% ---	4 17%	7 16%	5 19%	16 24%	5 10% -	40 19%	12 18%	0 0%	9 26%	6 43%	11 21%	2 40%	25 15% -	92 21% +	2 12%	40 22%	15 14% -	8 12%	52 23% +
Don't know	7 1%	0 0%	7 2% ++	0 0%	0 0%	1 1%	2 2%	0 0%	4 2%	0 0%	0 0%	0 0%	2 3%	1 2%	2 1%	0 0%	0 0%	2 6% +++	0 0%	0 0%	0 0%	0 0%	7 2% +	2 12%	1 1%	2 2%	1 2%	1 0%

Limits to growth:

The Earth is like a spaceship with only limited room and resources

	Total	Gender		Age						Territorial Authority										Rural/Urban		Education						
		Male	Female	18-19yrs	20-29yrs	30-39yrs	40-49yrs	50-59yrs	60yrs or older	Franklin District	Thames-Coro. District	Hauraki District	Waikato District	Matamata-Piako District	Hamilton City	Waipa District	Otorohanga District	South Waikato District	Waitomo District	Taupo District	Rotorua District	Country (Rural)	Town (Urban)	Primary school	Secondary School qualification	Secondary School	Trade Certificate	Tertiary qualification
Unweighted base	600	227	373	13	55	99	112	130	191	23	43	26	67	48	207	67	14	34	14	52	5	166	434	17	183	109	65	226
Strongly Disagree	2 0%	1 0%	1 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 1% ++	0 0%	0 0%	0 0%	0 0%	0 0%	1 0%	0 0%	1 7%	0 0%	0 0%	0 0%	0 0%	1 1%	1 0%	0 0%	1 1%	1 1%	0 0%	0 0%
Disagree	72 12%	28 12%	44 12%	4 31%	7 13%	6 6%	17 15%	9 7%	29 15%	4 17%	2 5%	2 8%	12 18%	6 13%	23 11%	9 13%	4 29%	3 9%	0 0%	7 13%	0 0%	24 14%	48 11%	2 12%	31 17% ++	11 10%	12 18% +	16 7% ---
Neither Agree nor Disagree	20 3%	3 1% --	17 5% ++	0 0%	5 9% ++	4 4%	0 0%	3 2%	8 4%	1 4%	0 0%	1 4%	1 1%	5 10% +++	7 3%	4 6%	0 0%	0 0%	0 0%	0 0%	1 20%	3 2%	17 4%	3 18%	4 2% --	11 10% +++	3 5%	8 4%
Agree	413 69%	163 72%	250 67%	7 54%	36 65%	68 69%	73 65%	93 72%	136 71%	15 65%	37 86% ++	20 77%	39 58% --	32 67%	144 70%	46 69%	9 64%	23 68%	10 71%	35 67%	3 60%	117 70%	296 68%	9 53%	121 66%	79 72%	39 60%	165 73% +
Strongly Agree	84 14%	31 14%	53 14%	2 15%	7 13%	21 21% ++	21 19%	24 18% +	9 5% ---	3 13%	4 9%	2 8%	15 22% ++	4 8%	27 13%	8 12%	0 0%	6 18%	4 29%	10 19%	1 20%	20 12%	64 15%	3 18%	26 14%	7 6% --	11 17%	37 16%
Don't know	9 2%	1 0% -	8 2% +	0 0%	0 0%	0 0%	1 1%	1 1%	7 4% +++	0 0%	0 0%	1 4%	0 0%	1 2%	5 2%	0 0%	0 0%	2 6% ++	0 0%	0 0%	0 0%	1 1%	8 2%	0 0%	0 0%	0 0%	0 0%	0 0%

There are limits to economic growth even for developed countries like ours

	Gender		Age							Territorial Authority										Rural/Urban		Education						
	Total	Male	Female	18-19yrs	20-29yrs	30-39yrs	40-49yrs	50-59yrs	60yrs or older	Franklin District	Thames-Coro. District	Hauraki District	Waikato District	Matamata-Piako District	Hamilton City	Waipa District	Otorohanga District	South Waikato District	Waitomo District	Taupo District	Rotorua District	Country (Rural)	Town (Urban)	Primary school	Secondary School qualification	Secondary School	Trade Certificate	Tertiary qualification
Unweighted base	600	227	373	13	55	99	112	130	191	23	43	26	67	48	207	67	14	34	14	52	5	166	434	17	183	109	65	226
Strongly Disagree	3 1%	1 0%	2 1%	0 0%	0 0%	0 0%	0 0%	2 2% +	1 1%	0 0%	0 0%	0 0%	0 0%	0 0%	1 1%	1 7%	1 3% ++	0 0%	0 0%	0 0%	1 1%	2 0%	0 0%	1 1%	0 0%	0 0%	0 0%	2 1%
Disagree	91 15%	35 15%	56 15%	1 8%	3 5% --	16 16%	21 19%	15 12%	35 18%	2 9%	5 12%	6 23%	12 18%	6 13%	29 14%	10 15%	1 7%	8 24%	2 14%	10 19%	0 0%	30 18%	61 14%	2 12%	31 17%	16 15%	14 22%	28 12%
Neither Agree nor Disagree	27 5%	8 4%	19 5%	4 31%	5 9% +	1 1% -	3 3%	5 4%	9 5%	3 13%	1 2%	2 8%	2 3%	2 4%	10 5%	2 3%	1 7%	1 3%	1 7%	1 2%	1 20%	6 4%	21 5%	3 18%	13 7%	11 10% +	2 3%	10 4%
Agree	417 70%	157 69%	260 70%	7 54%	39 71%	70 71%	72 64%	96 74%	133 70%	15 65%	30 70%	15 58%	46 69%	35 73%	145 70%	50 75%	11 79%	22 65%	11 79%	34 65%	3 60%	118 71%	299 69%	12 71%	121 66%	75 69%	46 71%	163 72%
Strongly Agree	50 8%	19 8%	31 8%	1 8%	7 13%	10 10%	15 13% ++	10 8%	7 4% ---	3 13%	6 14%	2 8%	7 10%	3 6%	18 9%	3 4%	0 0%	1 3%	0 0%	6 12%	1 20%	11 7%	39 9%	0 0%	17 9%	7 6%	3 5%	23 10%
Don't know	12 2%	7 3%	5 1%	0 0%	1 2%	2 2%	1 1%	2 2%	6 3%	0 0%	1 2%	1 4%	0 0%	2 4%	5 2%	1 1%	0 0%	1 3%	0 0%	1 2%	0 0%	0 0%	12 3% ++	0 0%	0 0%	0 0%	0 0%	0 0%

Humans live on a planet with limited room and resources

	Total	Gender		Age						Territorial Authority										Rural/Urban		Education						
		Male	Female	18-19yrs	20-29yrs	30-39yrs	40-49yrs	50-59yrs	60yrs or older	Franklin District	Thames-Coro. District	Hauraki District	Waikato District	Matamata-Piako District	Hamilton City	Waipa District	Otorohanga District	South Waikato District	Waitomo District	Taupo District	Rotorua District	Country (Rural)	Town (Urban)	Primary school	Secondary School qualification	Secondary School	Trade Certificate	Tertiary qualification
Unweighted base	600	227	373	13	55	99	112	130	191	23	43	26	67	48	207	67	14	34	14	52	5	166	434	17	183	109	65	226
Strongly Disagree	3 1%	0 0%	3 1%	0 0%	0 0%	1 1%	0 0%	0 0%	2 1%	0 0%	0 0%	0 0%	1 1%	0 0%	0 0%	0 0%	1 7%	0 0%	0 0%	1 2%	0 0%	3 2% +++	0 0%	0 0%	1 1%	0 0%	0 0%	2 1%
Disagree	92 15%	36 16%	56 15%	1 8%	5 9%	11 11%	21 19%	22 17%	32 17%	6 26%	4 9%	8 31%	13 19%	5 10%	28 14%	9 13%	3 21%	5 15%	2 14%	9 17%	0 0%	27 16%	65 15%	2 12%	32 17%	25 23% ++	16 25% ++	17 8% ---
Neither Agree nor Disagree	21 4%	5 2%	16 4%	1 8%	3 5%	4 4%	2 2%	4 3%	7 4%	0 0%	1 2%	0 0%	1 1%	4 8% +	11 5% +	3 4%	0 0%	1 3%	0 0%	0 0%	0 0%	4 2%	17 4%	0 0%	8 4%	6 6%	1 2%	6 3%
Agree	423 71%	167 74%	256 69%	9 69%	41 75%	69 70%	73 65%	91 70%	140 73%	15 65%	36 84% ++	17 65%	40 60% --	36 75%	147 71%	50 75%	9 64%	25 74%	10 71%	33 63%	5 100%	118 71%	305 70%	13 76%	122 67%	73 67%	43 66%	172 76% ++
Strongly Agree	57 10%	18 8%	39 10%	2 15%	6 11%	14 14% +	15 13%	12 9%	8 4% ---	2 9%	2 5%	1 4%	12 18% ++	2 4%	18 9%	5 7%	1 7%	3 9%	2 14%	9 17% ++	0 0%	14 8%	43 10%	2 12%	18 10%	5 5% -	4 6%	28 12% +
Don't know	4 1%	1 0%	3 1%	0 0%	0 0%	0 0%	1 1%	1 1%	2 1%	0 0%	0 0%	0 0%	0 0%	1 2%	3 1% +	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	4 1%	0 0%	2 1%	0 0%	1 2%	1 0%

Social Justice:

Present generations of humans have no moral duties and obligations to future human generations

	Total	Gender		Age						Territorial Authority										Rural/Urban		Education						
		Male	Female	18-19yrs	20-29yrs	30-39yrs	40-49yrs	50-59yrs	60yrs or older	Franklin District	Thames-Coro. District	Hauraki District	Waikato District	Matamata-Piako District	Hamilton City	Waipa District	Otorohanga District	South Waikato District	Waitomo District	Taupo District	Rotorua District	Country (Rural)	Town (Urban)	Primary school	Secondary School qualification	Secondary School	Trade Certificate	Tertiary qualification
Unweighted base	600	227	373	13	55	99	112	130	191	23	43	26	67	48	207	67	14	34	14	52	5	166	434	17	183	109	65	226
Strongly Disagree	111 19%	40 18%	71 19%	1 8%	7 13%	19 19%	36 32% +++	25 19%	23 12% ---	3 13%	6 14%	5 19%	18 27% +	2 4% ---	40 19%	14 21%	1 7%	4 12%	2 14%	16 31% ++	0 0%	25 15%	86 20%	0 0%	1 1%	2 2%	2 3%	4 2%
Disagree	372 62%	154 68% ++	218 58% --	7 54%	35 64%	72 73% ++	58 52% --	80 62%	120 63%	16 70%	30 70%	12 46%	38 57%	34 71%	129 62%	40 60%	12 86%	24 71%	9 64%	25 48% --	3 60%	111 67%	261 60%	7 41%	31 17% +	21 19% ++	9 14%	12 5% ---
Neither Agree nor Disagree	20 3%	6 3%	14 4%	3 23%	4 7% +	2 2%	2 2%	4 3%	5 3%	1 4%	1 2%	3 12%	2 3%	2 4%	7 3%	3 4%	0 0%	0 0%	0 0%	0 0%	1 20%	4 2%	16 4%	1 6%	7 4%	4 4%	3 5%	5 2%
Agree	80 13%	23 10% -	57 15% +	2 15%	6 11%	5 5% ---	13 12%	18 14%	36 19% +++	3 13%	4 9%	5 19%	8 12%	7 15%	25 12%	10 15%	1 7%	4 12%	2 14%	10 19%	1 20%	22 13%	58 13%	8 47%	110 60%	66 61%	38 58%	150 66% +
Strongly Agree	9 2%	2 1%	7 2%	0 0%	2 4%	0 0%	3 3%	1 1%	3 2%	0 0%	2 5% +	1 4%	0 0%	0 0%	5 2%	0 0%	0 0%	0 0%	0 0%	1 2%	0 0%	1 1%	8 2%	0 0%	32 17%	12 11% --	13 20%	54 24% +++
Don't know	8 1%	2 1%	6 2%	0 0%	1 2%	1 1%	0 0%	2 2%	4 2%	0 0%	0 0%	0 0%	1 1%	3 6% +++	1 0%	0 0%	0 0%	2 6% ++	1 7%	0 0%	0 0%	3 2%	5 1%	1 6%	2 1%	4 4% ++	0 0%	1 0%

Natural resources should be used primarily to provide for basic needs rather than material wealth

	Gender			Age						Territorial Authority										Rural/Urban		Education						
	Total	Male	Female	18-19yrs	20-29yrs	30-39yrs	40-49yrs	50-59yrs	60yrs or older	Franklin District	Thames-Coro. District	Hauraki District	Waikato District	Matamata-Piako District	Hamilton City	Waipa District	Otorohanga District	South Waikato District	Waitomo District	Taupo District	Rotorua District	Country (Rural)	Town (Urban)	Primary school	Secondary School qualification	Secondary School	Trade Certificate	Tertiary qualification
Unweighted base	600	227	373	13	55	99	112	130	191	23	43	26	67	48	207	67	14	34	14	52	5	166	434	17	183	109	65	226
Strongly Disagree	5 1%	2 1%	3 1%	0 0%	1 2%	0 0%	0 0%	1 1%	3 2%	0 0%	0 0%	1 4%	0 0%	2 4% +++	2 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	5 1%	0 0%	2 1%	0 0%	2 3% ++	1 0%
Disagree	50 8%	20 9%	30 8%	2 15%	1 2% -	6 6%	14 13% +	12 9%	15 8%	2 9%	4 9%	2 8%	6 9%	5 10%	17 8%	6 9%	2 14%	3 9%	1 7%	2 4%	0 0%	17 10%	33 8%	2 12%	10 5% -	12 11%	4 6%	22 10%
Neither Agree nor Disagree	38 6%	20 9% +	18 5% -	0 0%	7 13% ++	4 4%	12 11% ++	7 5%	8 4%	0 0%	2 5%	1 4%	3 4%	3 6%	18 9% +	7 10%	3 21%	0 0%	0 0%	1 2%	0 0%	9 5%	29 7%	0 0%	12 7%	12 11% ++	5 8%	9 4% -
Agree	423 71%	160 70%	263 71%	9 69%	35 64%	76 77%	64 57% ---	95 73%	144 75% +	16 70%	30 70%	18 69%	44 66%	34 71%	143 69%	47 70%	8 57%	25 74%	11 79%	42 81% +	5 100%	117 70%	306 71%	12 71%	129 70%	72 66%	48 74%	162 72%
Strongly Agree	77 13%	23 10%	54 14%	2 15%	11 20% +	12 12%	22 20% ++	13 10%	17 9% --	4 17%	7 16%	3 12%	13 19% +	3 6%	24 12%	7 10%	1 7%	6 18%	2 14%	7 13%	0 0%	23 14%	54 12%	1 6%	28 15%	12 11%	6 9%	30 13%
Don't know	7 1%	2 1%	5 1%	0 0%	0 0%	1 1%	0 0%	2 2%	4 2%	1 4%	0 0%	1 4%	1 1%	1 2%	3 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	7 2% +	2 12%	2 1%	1 1%	0 0%	2 1%

Appendix III: Additional comments received

Comments on the NEP Survey:

Generally negative comments:

- You need more flexibility with the answers of the questions.
- I just thought some of the questions were a bit loaded and could not be answered.
- I think that some of the questions can be ambiguous; they were rather contradictory to other questions.
- What's this about?? How'd you get my number???
- I would think this is an utterly ridiculous questionnaire, the questions are rigged.
- Will ring Waikato Regional Council to enquire about the survey questions. I am not happy with many of the questions.
- I think that the person that constructed this survey has let Waikato Regional Council down. I think that these answers are loaded and very much skewed. I feel very disappointed especially when comes to issues about the environment because I am someone who is very concerned with the environment. So yes, I think that these questions are very loaded, and I want to talk with someone from the Waikato Regional Council in regards to this survey because I really am disappointed.
- Little vague and ambiguous.
- I think the questions are far too generalized, they are not specific enough, they are either anti- or biased (vigorously).
- Wasn't expecting those questions. Thought it would be more Waikato based/focused.
- Not really, I found some of the questions confusing.
- A lot of the questions are loaded. I am aware that Waikato Regional Council are in partnership with Tainui and I feel that the statements are not factual information and that they are loaded and they reflect rather emotive information.
- Questions are too broad to answer accurately. I don't think the survey will serve its purpose.
- International survey needs to be more specific.
- Those questions are dumb.
- I think 'do you have any Maori ancestry' question is rude. They are just trying to divide people. You can class yourself as whichever ethnic group you like, that is your right. This is taking it too far. I don't see the point.
- I had reservations with some of your questions. Generally it's been okay.
- Very blunt, no room for grey areas, there are a lot.
- Nothing is ever black and white, question are qualified to answer.
- It seems those questions didn't make sense to agree or disagree.
- Some of the questions don't give you are a wide range of choice and are hard to answer.
- Some of the questions are impromptu.

- I just thought the survey might have carried on a bit from some of those questions.

Generally positive comments:

- It certainly varied and was very entertaining, but I think we do pretty well in this country.
- No that's fine, makes me think.
- No that was pretty cool thanks.
- No I'm happy with that.
- No, no I think it's all pretty good.
- Some of the questions really made me think. I need to find out a bit more about some of those things.
- No, it's thoughtful.
- I think the questions are somehow placed in the negative. They were hard to figure out what was being asked. I think it's very good that they're doing it though.
- This is a good survey and I was very happy to take your call.
- No, very interesting questions.
- Wants Waikato Regional Council to contact her to let her know whether results will be published and where.
- No. Awesome survey.
- I think the survey is really good and people should listen to the environment.
- No I think it's all great really.
- Very interesting, makes you wonder.
- No feels that he knows a lot about the environment, just wants to see what will come out of this.
- Excellent survey re: awareness processes of the environment.
- No but I'd be interested in seeing the results when they come out.
- Could I get a copy of this?
- They are pretty important topics. Global warming and all that are more serious than we thought. It's a hot topic.
- No I'm pretty happy with that.
- Very interesting, good.
- When you get all the results and information together do you think we will get to see the results?
- I think it's a great survey as it takes the animals and nature into account. I really enjoyed doing it.
- Good thing re: survey, view other peoples ideas. People's obligation to environment. Duty to protect for the future generation.
- No that pretty well covers it.
- I was not unhappy answering the questions.
- I think there should be a balance between humans and nature and the survey sounds like that is where it is heading which is good.
- Some of the questions are extraordinarily loaded, the idea is good though.

- No I think it's a good idea to do surveys like this.
- No I think it was very reasonable.
- That our district does take in comments and use them.

General comments about participating:

- I have answered all the questions to the best of my ability with the time you have given me. They may be right or they may be wrong but that's what I think.
- What is the objective of the interview?
- What does Waikato Regional Council use this for? (re-read the last sentence of the previous statement)
- Some of these questions are really big questions that may be better in a written form so that I can sit down and actually think about them in order to answer the questions properly. Yeah so it may be a bit better to try get it written.
- What are my answers used for?
- Decision based on eating nature, too generic, not defined enough. When referring to nature, I thought of food.
- Just hopes that what we're doing does some good to the environment.
- Appreciated the survey was quick.
- Questions were well structured.
- No I think you have covered a range of areas, thank you.
- Why don't we get feedback from this? I'd like to be acknowledged. It makes me feel that these surveys are nothing! I may as well hang up on you guys.
- Let's just hope it starts to make a difference.
- I think that the questions have covered everything.
- Little bit more difficult than anticipated.
- What are you doing with the information, will my input help change looking after the environment at government level.
- So much more to the questions, develop them a bit more as it touches the subject only.
- I probably could have thought about my answers a bit more.

General comments about Waikato Regional Council:

- Needs to be educated more in schools and for parents.
- I think we're overregulated by Waikato Regional Council.
- We have several lakes on our farms and we have many issues with you (Waikato Regional Council).
- Totally disgusted where you can spend the communities monies off shore, then increase the rates for their deficit. The decision makers should no longer be a part of the process, move on/out. Elderly are disadvantaged when the rates increased.
- I would like Waikato Regional Council to the idea to ditch pest extermination. I am not sure that Waikato Regional Council actually have the environment in mind when they think about going ahead with this plan.

- No but I think that Waikato Regional Council are just trying to build an empire for themselves and are not really facing the issues at hand.
- I think that their charges have been appalling especially it's too expensive.
- Not applicable.
- No just doing good stuff.
- Why are our rates so high, 2,500.00 yearly
- If it was Auckland City Council he wouldn't have taken the survey, thinks Waikato Regional Council is great!
- Pull finger and get on with the job.
- Our rates are too high.
- Well, for the environment, how they're pushing farms to keep the environment well looked after, it's working really well and I think you just need to keep up with the information days etc.
- Yes, when put out brochures to pay the rates don't like to see what the money has been spent on. For example all the rich areas like Whitianga, Tairua, Pauanui, Whangamata and Tauranga. Should spread it more to the poor areas.
- They need to stand up for what they are there for. I was in need of assistance from the E.W, and they just shrugged me off and passed me onto someone else/and when I went to that person they said that it's not their problem that it is E.W problem. This is over some subdivision over property that I am working on. Everything has passed criteria but over the last couple of years my neighbour had been filling, natural water higher than mine making it harder for me to dispose of my water.
- No but I think Waikato Regional Council should spend their money on things for the people rather than flash cars and high wages, put some back into the community.
- I read the Waikato Regional Council magazine that comes around so thank you no.
- Bloody look after it and consult with people before you put on new regulations.
- No but they should ban wood smoke.
- To see Waikato Regional Council live by their rules. They should not provide consent to people who are doing harm to the environment.
- Needs to listen the little people, everyday normal people and if they going to do thing they need follow through with it.
- Council, government interfered with farming in general in terms of regulating developments of scrub lands. Cost of dairy subdivision to off sell, not good etc...
- Leave us alone and not add any extras to our environment.
- Leave our lake alone, as well as the Waikato River and fix up the algae bloom!
- Why is the Waikato Regional Council running with the buses. It has nothing to do with the buses.
- Waikato Regional Council put a lot of pressure on industries for land donors. Also they are always asking for money, it would be interesting to see a financial report to see what the money is spent on.

- I think environmental people should look at creating something different to what they are creating, instead of building it up and then going broke. Animals should be given more rights than they are, even more than us because they were here first.
- Yeah they should keep on doing what they're doing.
- Waikato Regional Council have too much power.
- Yeah just as long as they don't stop hunting in certain areas and stop 1080 poisoning.
- I struggle with having to pay a levy on Lake Taupo.
- I live on the plains the flats, we have the most rates, the ones on the hills don't get enough rates.
- 5 years ago he paid \$80 a year and now he is paying \$550 and they have done nothing. They are just wanting to become wealthy. They have a river that have a dump right next to it and it is polluting the river and Waikato Regional Council has allowed it. They are destroying the environment.

Comments about organisations involved with environment:

- No not all, I am just very impressed when it comes to the general organization of New Zealand's environment issues by the organizations that deal with this sort of area. Since immigrating here 7 years ago I have always been amazed in the way that New Zealand addresses their issues, especially compared with other countries. I think that New Zealand can definitely uphold their reputation as a clean and green country.
- Get onto people from Parliament because they are not making a very good job of it.
- Well I do think that if the politicians were genuine in their beliefs they would cut down on their flying because all it does is put all these substances into the air, and then they turn around and say stuff to us about what were doing. It's hypocrisy.
- Some of the policies that the government puts in place do harm to the environment.

General comments about the environment:

- Well if it's to do about environment issues, the farmers have to look at more natural stuff other than synthetic resources.
- Yes, I think they should stop building the great sea of roofs (houses) in Rototuna.
- Just that we have to preserve for future generations. Definitely! try to keep a good balance between nature and human beings.
- Man has created a lot of problems in this world, which is at a peak at the moment.
- We need to protect natural environment otherwise we will lose what we have.
- New Zealand man suggested bugs as part of nature can be used to benefit humans, curing sickness and diseases.
- Yeah well what I was saying is that this business about the cattle polluting our rivers - a lot of it is overboard.
- I don't think so. It's going to be an on-going battle to satisfy people.
- As a landscaper I think the waterways are very important and I think people need to be aware of water quality and things like that.

- Think that global warming push too hard. Already been through 2 ice ages. Big load of rubbish. Look at the weather trends and natural weather patterns. Only people pushing global warming want a benefit from it. E.g. Al Gore in USA. Generation left behind will suffer.
- Disagrees with how they let the trees grow so big here because they are blocking people's views. Had the most beautiful view of the lake and now people's trees are so tall they can hardly see the lake. She thinks there should be some sort of by-law.
- No. I just really believe we should live in harmony and protect our environment.
- Basically people got to start waking up, because it's running out.
- No, I think we need to be mindful of how we are managing our space. Kiwis have a mindset of living with a lot of space, we need to learn about and accept ecological problems. We are running out time, space and air. The most important thing is managing our resources. We need to make some pretty desperate action now to ensure our future.
- Take care of the Earth.
- No except if we stopped cutting down trees we would have less carbon, the trees were/are there for a purpose.
- Do more to the planet, very dangerous re: disastrous, earthquakes like in China, we need to do something with this generation. If you don't know anything about the planet, that is disastrous.
- I think some of the industrialists should look at how they use the environment e.g. mining, contamination, erosion, meat works.
- Questions speak for the way one thinks, progress is really greed for the richer, poorer getting poor. Guard nature, take care of it, seek alternative measures re: rain forest. Societies waste, use better frameworks to put back into the environment. Got to be a better way.
- No I'm worried about the way things are going to go. Not so much about my needs but for my kids and my grandchildren.
- I think that all this spraying and sort of thing is no good for the environment or people because they're not careful enough. Our waterways are polluted, with untidy rubbish which affects the environment.

Unrelated comments:

- Well with the price of bloody food and petrol these days are ridiculous.
- Legalise marijuana.
- Lots but haven't got time.
- I could go on for ever. No I'll pass thanks.
- Not really, I just feel that everything in the country is getting towards what Maori want. The Maoris are now bankrupting NZ, they are getting too many things.
- Worship the creator more the than worship the created.
- Raglan is pretty incredible for what it is. It's very positive.