

Waikato progress indicators – Tupuranga Waikato

Summary update May 2019



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May 2019

Doc # 14144487

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Table of contents

| | | |
|-------------------|--|-----------|
| 1 | Purpose | 1 |
| 2 | Latest results | 2 |
| 2.1 | Indicator Report Cards | 2 |
| 2.2 | Waikato Region Scorecard | 2 |
| 2.3 | Circle of Wellbeing | 5 |
| 2.4 | Comparison of Waikato with other regions and New Zealand | 6 |
| 3 | Economic trends | 8 |
| 4 | Social and cultural trends | 9 |
| 5 | Environmental trends | 10 |
| 6 | Overall progress (experimental indexes) | 11 |
| 7 | Next steps | 12 |
| | References | 14 |
| Appendix 1 | The Waikato Progress Indicators | 15 |
| Appendix 2 | WPI time series data 2001 to 2018 | 18 |

Figures

| | | |
|-----------|--|----|
| Figure 1 | WPI trends – Scorecard for approximately 2007 to 2017-18 | 4 |
| Figure 2 | WPI indicator trends 2006-07 to 2017-18, Waikato region. | 5 |
| Figure 3 | Comparison Waikato region with New Zealand (selected indicators only). | 7 |
| Figure 4 | Real median weekly household income (June 2018 dollars). | 8 |
| Figure 5 | Real value of building consents authorised (\$m) (annual – Jun). | 8 |
| Figure 6 | Percentage of school leavers with NCEA Level 2 or above. | 9 |
| Figure 7 | Frequency of doing regular physical activity in past week. | 9 |
| Figure 8 | Air quality exceedances. | 10 |
| Figure 9 | Residential expansion onto versatile land (ha). | 10 |
| Figure 10 | GDP vs Waikato Wellbeing Index (PCA method) 2001-2013. | 11 |
| Figure 11 | GDP vs Waikato composite indexes (CIW method) 2001-2017. | 11 |

Tables

| | | |
|---------|---|---|
| Table 1 | Comparison of WPI with selected other regions and New Zealand | 6 |
|---------|---|---|

1 Purpose

This document summarises latest results from the Waikato Progress Indicators (WPI) – *Tupuranga Waikato* monitoring programme, updated in May 2019. The WPI is an online dashboard of 32 environmental, social and economic indicators, see www.waikatoregion.govt.nz/wpi/.

The WPI dashboard provides an overview of the economic, social and environmental wellbeing of the Waikato region and helps gauge progress towards Waikato Regional Council's (WRC's) [Strategic Direction](#). Selected measures relevant to Council's activities are included in WRC's [Annual Report](#).

The data and website information are refreshed annually.

This update compares the latest available results for each of the WPI indicators with 2006-07 baseline results, enabling regional progress to be assessed over a decade period. Around half of the WPI indicators also have historical data going back to 2001 or earlier, giving a longer-term view. The aim is to inform the Waikato public, planners and decision-makers of genuine progress against key indicators of wellbeing. Note that the Local Government (Community Well-being) Amendment Bill aims to restore the purpose of local government to be "*to promote the social, economic, environmental, and cultural well-being of communities*".¹

The structure of this update report is:

1. Purpose
2. Latest results
3. Economic trends
4. Social and cultural trends
5. Environmental trends
6. Overall progress (experimental indexes).

For background on the development and design of the WPI programme, including the selection of indicators, refer to Killerby and Huser (2014).²

¹ www.parliament.nz/en/pb/bills-and-laws/bills-proposed-laws/document/BILL_77941/local-government-community-well-being-amendment-bill

² www.waikatoregion.govt.nz/services/publications/technical-reports/tr/tr201444/

2 Latest results

Results from the WPI monitoring programme are presented through:

- Indicator Report Cards
- Scorecard
- Circle of wellbeing
- Comparisons with other regions and New Zealand

The 32 indicators are described in Appendix 2 and the results for each indicator (primary dataset 2001 to 2017-18) are tabulated in Appendix 3.

2.1 Indicator Report Cards

Results for each indicator are summarised in online Report Cards, along with supporting information. These are available online at: www.waikatoregion.govt.nz/wpi/. Each of the 32 report cards includes a summary of the current state and recent changes and trends in relation to that indicator (results) and information about what the particular indicator means, why it is important and how the results were obtained (for example, by listing the data source).

2.2 Waikato Region Scorecard

The Scorecard (Figure 1) gives an overview of the Waikato region's progress towards wellbeing since approximately 2006-07.

Positive measured trends over the period approximately 2006-07 to 2017-18 are, in declining order:

- + Improved air quality – decrease in annual exceedances per year of the regional quality guideline for particulate matter in air, from 20 in 2007 to just two (2) in 2018.
- + Increased road safety – long-run decrease in the social cost of road injury crashes from approximately \$1,900 per capita in 2007 to a low of \$923 in 2013, before rising to approximately \$1,300 per capita in 2017 (all expressed in 2018 dollars).³
- + Higher average incomes – increase in real median weekly household income from \$1,377 in 2007 (expressed in 2018 dollars) up to \$1,678 in 2018.
- + Better educational attainment – increase in the percentage of school leavers with NCEA level 2 or above from 64 per cent in 2009 to 78 per cent in 2017.⁴
- + Increase in building activity – increase in real value of new building consents issued per year from \$1.4 billion in 2007 (expressed in 2018 dollars) to \$1.7 billion in 2018.
- + Growth in regional GDP – increase in real regional GDP per capita from approximately \$46,000 in 2007 (expressed in 2018 dollars) to over \$51,000 in 2018.
- + Less crime – close to record low levels of recorded victimisations, but with a slight increase in recent years.
- + Improved perceptions of safety – increase in the percentage of people who report feeling safe walking alone in their neighbourhood after dark, from 60% in 2006 to 64% in 2018.⁵

³ Despite a significant improvement in road safety over the last decade, the Waikato region still has a higher cost of road crashes per person than the national average (see Table 1). This is influenced by the extent of open roads in the Waikato region, with around 57 per cent of the national total cost of road injury crashes relating to crashes that occur on open roads.

⁴ The level of educational attainment in the Waikato, while significantly improved in recent years, is still slightly below the national average (Table 1, Figure 3).

⁵ The 2006 value was previously incorrectly reported as 80% (this was the 2006 value for 'walking in your neighbourhood after dark' whereas 60% was the value for 'walking alone in the neighbourhood after dark').

- + More recycling – increase in the percentage of people who said their household recycles ‘all/most of’ their waste, from approximately 66% in 2008 to 70% in 2012, and 77% in 2016.
- + More employment – the regional employment rate fell from 67% in 2007 to 63% in 2012 and has since recovered to 70% in December 2018.
- + Longer life expectancy – currently 79 years for males and 83 years for females. Gains in life expectancy since the mid-1980s can be attributed to better living standards and improved health care.

Negative trends over this period include, in declining order:

- Poorer perceptions of community engagement – decrease in the percentage of Waikato survey respondents who agreed that the public has an influence over the decisions their local Council makes (down from 62% in 2006 to 36% in 2018).
- Less physical activity – decrease in the percentage of Waikato survey respondents who report having been physically active on five or more of the past seven days (down from 61% in 2006 to 40% in 2018).
- Higher water use – increase in water allocation as a percent of total allocable water at the Waikato River mouth during the summer months from 67% in 2007 to 86% in 2018.⁶
- More residential expansion onto versatile land – increase in residential use of versatile land in the Waikato region, from 13,727 hectares (ha) in 2008 to 17,287 ha in 2017. The greatest amount of subdivision has been occurring on land classed as having higher productive capabilities.
- Lower levels of cultural respect – decrease in the percentage of Waikato survey respondents who agree that New Zealand becoming home for an increasing number of people with different lifestyles and cultures from different countries makes their city/area a better place to live, from 51% in 2006 to 41% in 2018.
- Worse perceived health – decrease in the percentage of Waikato survey respondents who rate their overall health positively, from 90% in 2006 to 79% in 2018.
- Lower levels of community pride – decrease in the percentage of Waikato survey respondents who agree they feel a sense of pride in the way their local area looks and feels, from 70% in 2006 to 62% in 2018.
- Fewer Te Reo Māori speakers – decrease in the percentage of Waikato region residents who say that they speak Te Reo, from 5.8% in 2006 and 6.4% in 2001.
- Less use of Public transport – decrease in public transport use per person from 9.1 boardings during 2007/08 to 8.5 in 2017/18.
- Lower levels of life satisfaction – decrease in the percentage of people who rated their overall quality of life positively, from 90% in 2006 to 87% in 2018.

The 11 remaining indicators do not show a significant change between 2006-07 and 2017-18.

⁶ While increased allocation of water up to 100% of the total allocable water is not necessarily negative, the observed trend of increasing water use puts an increased pressure on our water resources. The more rapid increase of water use compared with the economy (GDP growth) in recent years indicates that water is being used less efficiently.

Scorecard

Waikato progress indicators – tupuranga waikato



The Waikato Progress Indicators (WPI) Monitoring Programme enables us to put measures around societal and environmental progress in the Waikato region as well as growth in the regional economy. This scorecard has been developed to help measure the Waikato region's overall progress. Latest data is compared with baseline results for each indicator (2006 - 2007). Results are shown as improving trends, worsening trends or no significant change.



SOCIETY

| | | | | | |
|---|---|--|---|--|---|
| Life satisfaction Percentage of people who rate their overall quality of life positively. | ↓ | Life expectancy Life expectancy at birth. | ↑ | Voter turnout Average voter turnout in local council, DHB and regional council elections. | ~ |
| Educational attainment Percentage of school leavers with NCEA level 2 or above. | ↑ | Perceived health Percentage of people who rate their overall health good, very good or excellent. | ↓ | Community engagement Percentage of people who agree the public can influence Council decisions. | ↓ |
| Housing affordability Ratio of housing costs to household income. | ~ | Social connectedness Percentage of people who feel a sense of community in their neighbourhood. | ~ | Income Real median weekly household income. | ↑ |
| Perceptions of safety Percentage of adults who feel safe walking alone in their neighbourhood after dark. | ↑ | Community pride People's sense of pride in the way their city/town looks and feels. | ↓ | Income inequality Gini coefficient - a measure of the concentration of income within the region. | ~ |
| Crime Rates of victimisation per 10,000 population. | ↑ | Physical activity Percentage of people who say they were physically active on five or more of the past seven days. | ↓ | Building activity Real value of new building consents issued. | ↑ |
| Road safety Social costs of road injury crashes per capita. | ↑ | Cultural respect Level of agreement that having people with different lifestyles and cultures makes area a better place to live. | ↓ | Employment Proportion of total working-age population who are employed. | ↑ |



ENVIRONMENT

| | | | |
|--|---|--|---|
| Environmental attitudes New Ecological Paradigm - Percentage pro- or mid-ecological. | ~ | Te Reo Māori speakers Percentage of Te Reo Māori speakers in the total population. | ↓ |
| River water quality Percentage of water samples taken from rivers and streams deemed unsatisfactory for ecological health. | ~ | Greenhouse gases National annual total greenhouse gas emissions. | ~ |
| Soil quality Percentage of monitored soil sites meeting at least five soil quality targets. | ~ | Indigenous vegetation Extent of Indigenous vegetation on land. | ~ |
| Residential expansion onto versatile land Area of versatile land in urban and rural residential use. | ↓ | Coastal ecosystem health Traits Based Index calculated for estuarine monitoring sites. | ~ |
| Air quality Exceedances of the regional guideline for particulate matter. | ↑ | Waste Tonnage of waste to landfill per annum. | ~ |
| | | Recycling Self-reported prevalence of household recycling. | ↑ |



ECONOMY

| | |
|--|---|
| Regional GDP Real Gross Domestic Product (GDP) per capita. | ↑ |
|--|---|



IMPROVING TREND



NO SIGNIFICANT CHANGE



WORSENING TREND

May 2019

Figure 1 WPI trends – Scorecard for approximately 2007 to 2017-18 (refer Appendix 3 for data). Source: WPI Monitoring Programme database (Waikato Regional Council)

2.3 Circle of Wellbeing

The WPI circle of wellbeing captures trend information about many indicators in one diagram (Figure 2). The central circle represents the WPI score for each indicator in the Waikato region in approximately 2006-07 and the spokes show WPI score progress to 2017-18. Where a spoke extends outside the white circle it means regional wellbeing has improved over the past decade. Where a spoke falls within the circle, regional wellbeing has declined. The length of the spokes reflects the size of change.

As per the overall WPI Scorecard (Figure 1), the most notable positive trends are in air quality, road safety, income, educational attainment, building activity and GDP. Other, smaller positive trends are evident for a range of social, economic and environmental indicators. The largest adverse trends over this period are poorer perceptions of community engagement, lower levels of physical activity, higher water use, more residential expansion onto versatile land, lower perceptions of cultural respect, worse perceived health and lower levels of community pride.

It is only from 2006-07 that there is a robust enough regional data set to cover all the WPI indicators. Over time, as the WPI monitoring programme extends into the future, the diagram below will give an increasingly accurate signal of long-term regional progress.

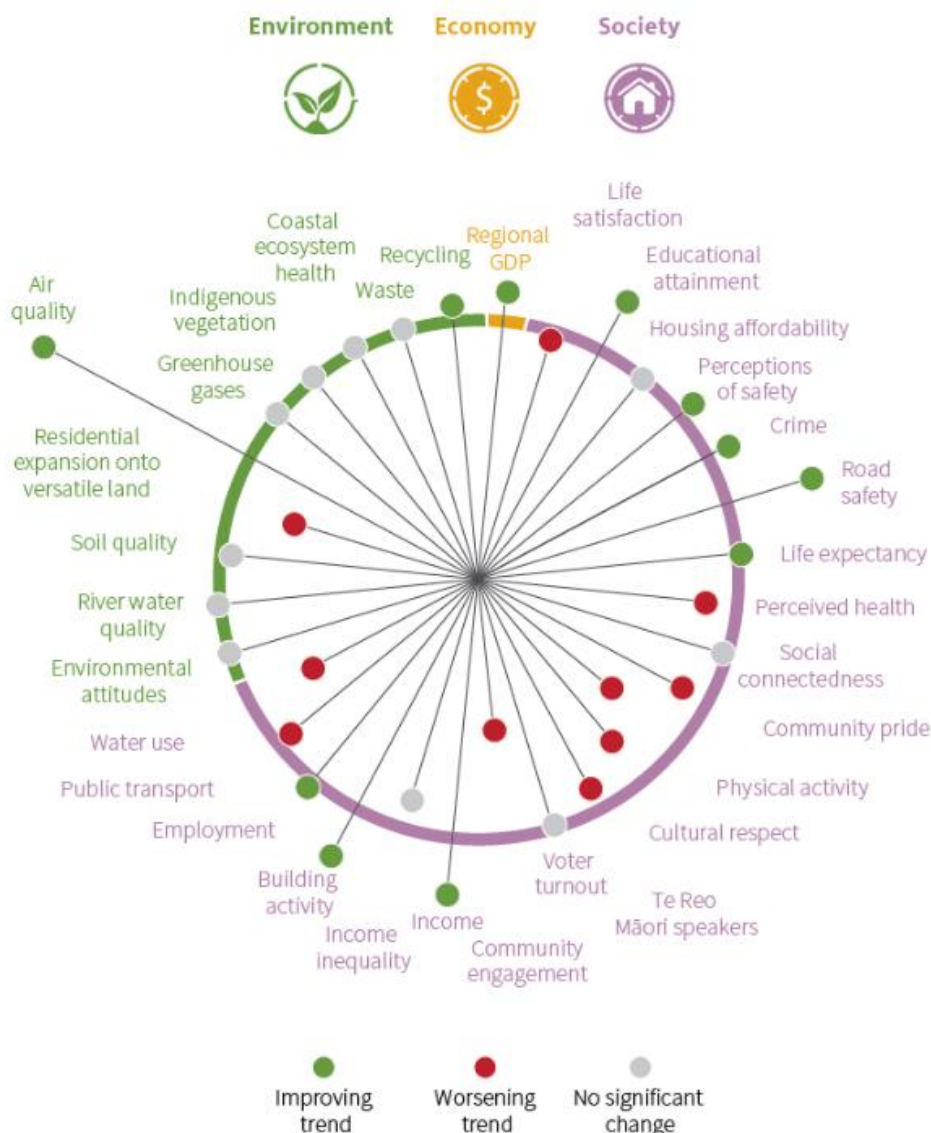


Figure 2 WPI indicator trends 2006-07 to 2017-18, Waikato region.

Source: WPI Monitoring Programme database (Waikato Regional Council)

2.4 Comparison of Waikato with other regions and New Zealand

Table 1 and Figure 3 below show the latest indicator comparisons between the Waikato region, selected other regions and the New Zealand average where comparable data is available. This shows that the Waikato region is behind the national average on a range of economic, social and environmental wellbeing indicators.

| Indicator | Waikato | Auckland | Wellington | Bay of Plenty | New Zealand |
|---|----------|----------|------------|---------------|-------------|
| Regional GDP | \$51,451 | \$64,223 | \$71,622 | \$52,254 | \$58,778 |
| Life satisfaction | 87% | 82% | 88% | n/a | 84% |
| Educational attainment | 77.9% | 83.7% | 85.9% | 79.4% | 80.7% |
| Housing affordability | 15.5% | 18.1% | 13.9% | 15.5% | 16.3% |
| Perceptions of safety | 64% | 62% | 75% | n/a | 65% |
| Crime | 645 | TBC | TBC | TBC | 449 |
| Road safety | \$1,265 | \$682 | \$560 | \$1,207 | \$1,008 |
| Life expectancy | 81.0 | 82.3 | 81.6 | 81.1 | 81.4 |
| Perceived health | 79% | 78% | 81% | n/a | 79% |
| Social connectedness | 62% | 50% | 57% | n/a | 52% |
| Community pride | 62% | 61% | 71% | n/a | 60% |
| Physical activity | 40% | 37% | 42% | n/a | 39% |
| Cultural respect | 41% | 54% | 63% | n/a | 57% |
| Te Reo Māori speakers | 5.3% | 2.2% | 3.3% | 7.9% | 3.5% |
| Voter turnout | 37.0% | 39.9% | 44.4% | 40.9% | 42.5% |
| Community engagement | 36% | 31% | 43% | n/a | 34% |
| Income | \$1,678 | \$1,928 | \$1,958 | \$1,642 | \$1,708 |
| Income inequality | 0.417 | 0.480 | 0.461 | 0.371 | 0.440 |
| Building activity (\$m) | 1,675 | n/a | n/a | n/a | n/a |
| Employment | 69.9% | 67.9% | 70.1% | 66.1% | 67.7% |
| Public transport | 8.5 | 53.4 | 73.5 | 10.6 | 31.9 |
| Water use | 86% | n/a | n/a | n/a | n/a |
| Environmental attitudes | 87% | n/a | n/a | n/a | n/a |
| River water quality | 29% | n/a | n/a | n/a | n/a |
| Soil quality | 86% | n/a | n/a | n/a | n/a |
| Residential expansion onto versatile land | 17,287 | n/a | n/a | n/a | n/a |
| Air quality | 2 | n/a | n/a | n/a | n/a |
| Greenhouse gases | NZ proxy | n/a | n/a | n/a | 80,853 |
| Indigenous vegetation | 27.2% | n/a | n/a | n/a | n/a |
| Coastal ecosystem health | 0.40 | n/a | n/a | n/a | n/a |
| Waste | 220,741 | n/a | n/a | 143,523 | n/a |
| Recycling | 70.3% | 86.1% | 79.2% | 72.6% | 80.1% |

Table 1 Comparison of WPI with selected other regions and New Zealand

Source: WPI Monitoring Programme database (Waikato Regional Council)

Note: Several indicators do not have comparable regional and/or national results (n/a) because either: (1) the WPI data are from a Waikato regional-specific survey (e.g. environmental attitudes) or (2) comparable regional data are not collected or comparison is not meaningful (e.g. soil quality, river water quality) or (3) scale-related data rather than dimensionless data are being used for the WPI indicator (e.g. building activity, residential expansion onto versatile land) or (4) in the case of greenhouse gases, changes in the New Zealand total are used as a proxy for regional changes in the absence of regional data.

Comparisons of the Waikato region with New Zealand average for specific key indicators are shown in Figure 3 using latest available data. In this diagram, the central circle represents national average wellbeing. Where a spoke extends outside the white circle it means regional wellbeing is better than the national average, and where it falls within the white circle, wellbeing is worse than the national average.

The diagram shows that the Waikato region is:

- behind the national average on a range of economic, social and environmental wellbeing indicators, including crime, cultural respect, road safety, voter turnout, GDP, recycling and educational attainment, but also that the region has
- a relatively high percentage of Te Reo Māori speakers, high level of social connectedness (sense of community experienced), and above-average levels of community engagement (perception of public's influence on Council decision making), life satisfaction (overall quality of life), community pride and employment rate.

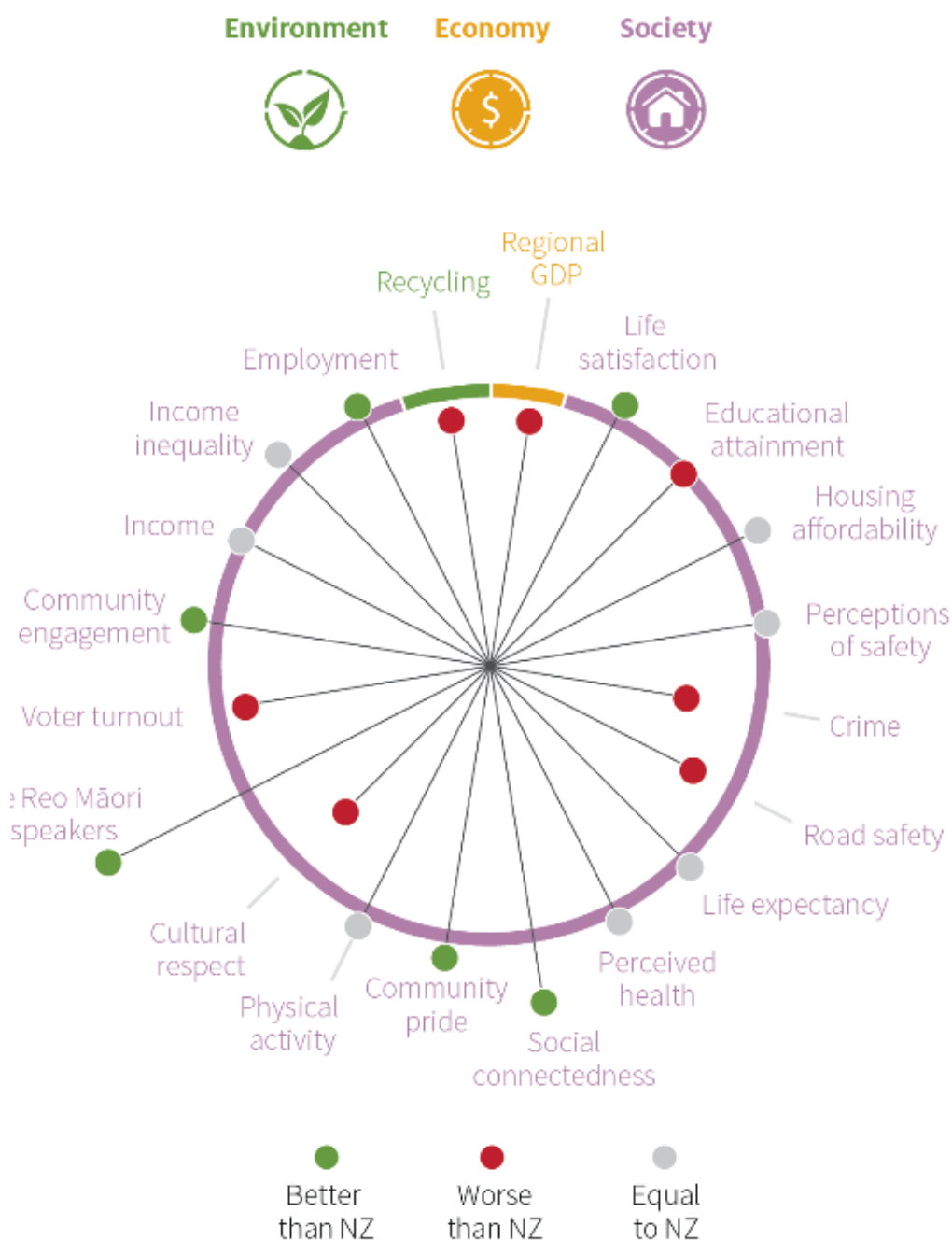


Figure 3 Comparison Waikato region with New Zealand (selected indicators only).

Source: WPI Monitoring Programme database (Waikato Regional Council)

Note: Excludes indicators that do not have comparable regional or national results. Information based on latest measured data (i.e. no imputed or estimated missing values).

3 Economic trends

WPI results show an expansion in real Gross Domestic Product (GDP) between 2007 and 2018 despite events affecting the economy such as fluctuations in agricultural commodity prices:

- + Regional GDP per person has expanded 11 per cent in real terms since 2007 (Appendix 3).
- + Real median weekly household income has increased (Figure 4).
- + Building activity, a lead indicator of economic activity, has increased rapidly in recent years (Figure 5).

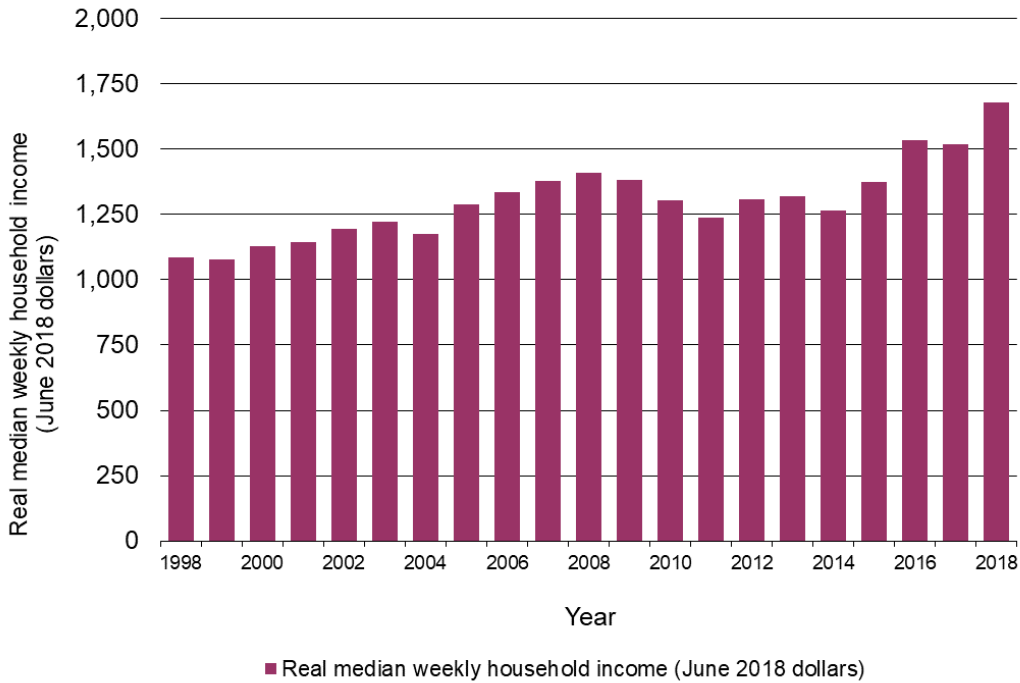


Figure 4 Real median weekly household income (June 2018 dollars).

Source: WPI Monitoring Programme database (Waikato Regional Council)

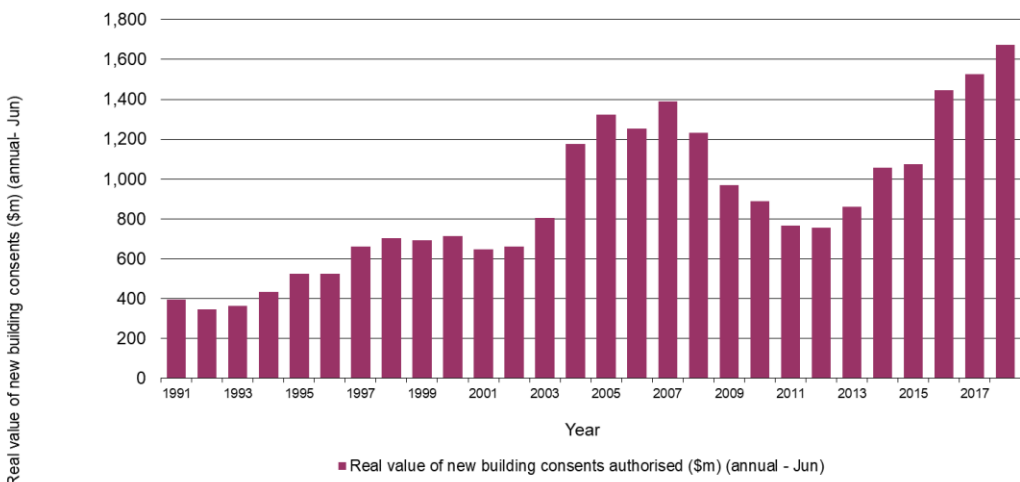


Figure 5 Real value of building consents authorised (\$m) (annual – Jun).

Source: WPI Monitoring Programme database (Waikato Regional Council)

4 Social and cultural trends

Latest WPI results show a mix of positive and negative social and cultural trends over the past decade. Positives include:

- + Decrease in the social cost of road injury crashes.
- + Increase in the percentage of school leavers with NCEA level 2 or above (Figure 6).
- + Reduction in annual reported rate of criminal victimisations.
- + Increase in the percentage of people who report feeling safe walking alone in their neighbourhood after dark.
- + More employment.
- + Longer life expectancy.

Negative social and cultural trends include decreases in the percentage of people who:

- Agree the public has an influence over the decisions their local Council makes.
- Are physically activity on a regular basis (Figure 7).
- Agree that New Zealand becoming home for an increasing number of people with different lifestyles and cultures from different countries makes their city/area a better place to live.
- Rate their overall health positively.
- Feel a sense of pride in the way their local area looks and feels.
- Speak Te Reo Māori.
- Use public transport.
- Rate their overall quality of life positively.

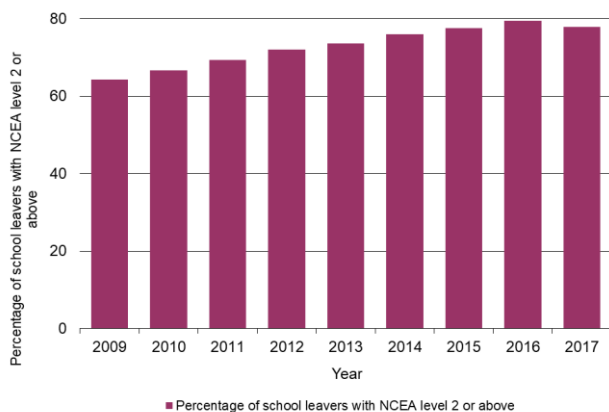


Figure 6 Percentage of school leavers with NCEA Level 2 or above.

Source: WPI Monitoring Programme database (Waikato Regional Council)

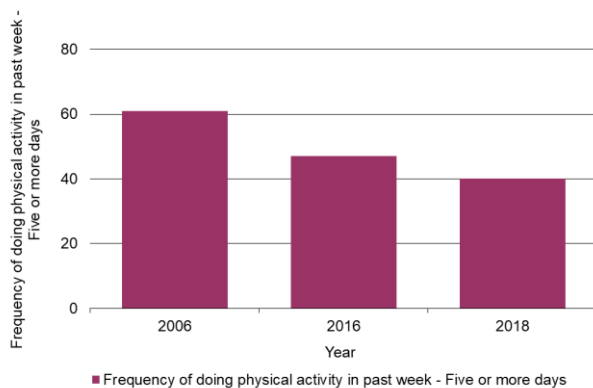


Figure 7 Frequency of doing regular physical activity in past week.

Source: WPI Monitoring Programme database (Waikato Regional Council)

5 Environmental trends

Latest WPI results show a mix of positive and negative environmental trends over the past decade. Positives include:

- + Decrease in the number of annual exceedances per year of the regional air quality guideline for particulate matter (Figure 8).
- + Increase in recycling from 66% of households in 2008 to 70% in 2012 (most recent available).

Negatives include:

- Increase in water use.
- Increase in residential expansion onto versatile land (Figure 9).

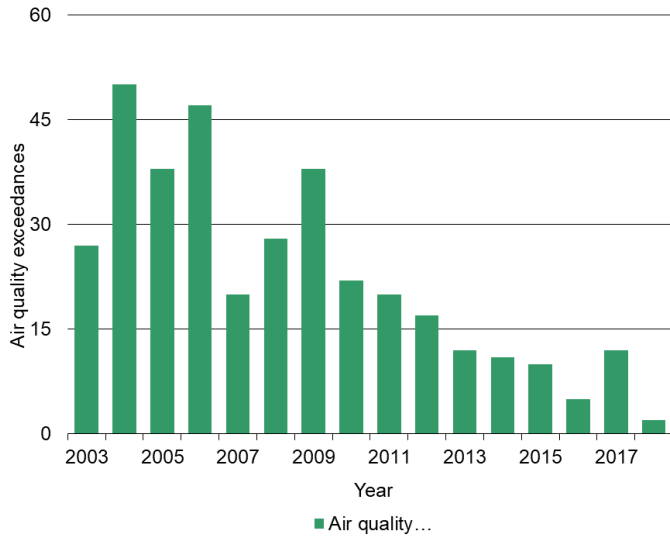


Figure 8 Air quality exceedances.

Source: WPI Monitoring Programme database (Waikato Regional Council)

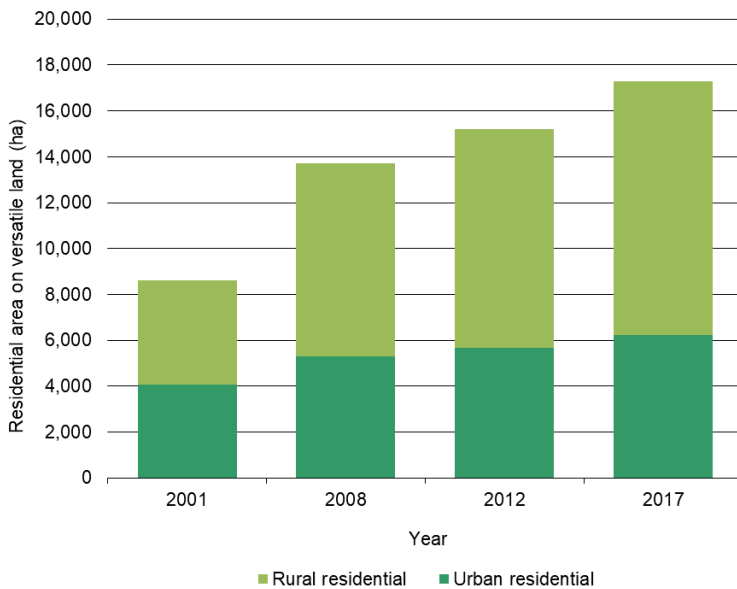


Figure 9 Residential expansion onto versatile land (ha).

Source: WPI Monitoring Programme database (Waikato Regional Council)

6 Overall progress (experimental indexes)

Work has been undertaken over recent years to investigate methods for deriving a composite index using the WPI dataset (Huser *et al.* 2016).⁷ Composite indexes combine several individual indicators into one summary indicator (index). In this case we combined all the 32 WPI indicators into a single number. Approaches explored to derive an exploratory Waikato Wellbeing Index have included the Canadian Index of Wellbeing (CIW) reference-year method (Michalos *et al.* 2011) and Principal Components Analysis (PCA). Both approaches show a widening gap between GDP and the combined results of all 32 WPI indicators, referred to as the Waikato Wellbeing Index (Figures 10 and 11).

Further efforts are required to develop and test these and other composite indicators that provide meaningful information and are sensitive to change over time.

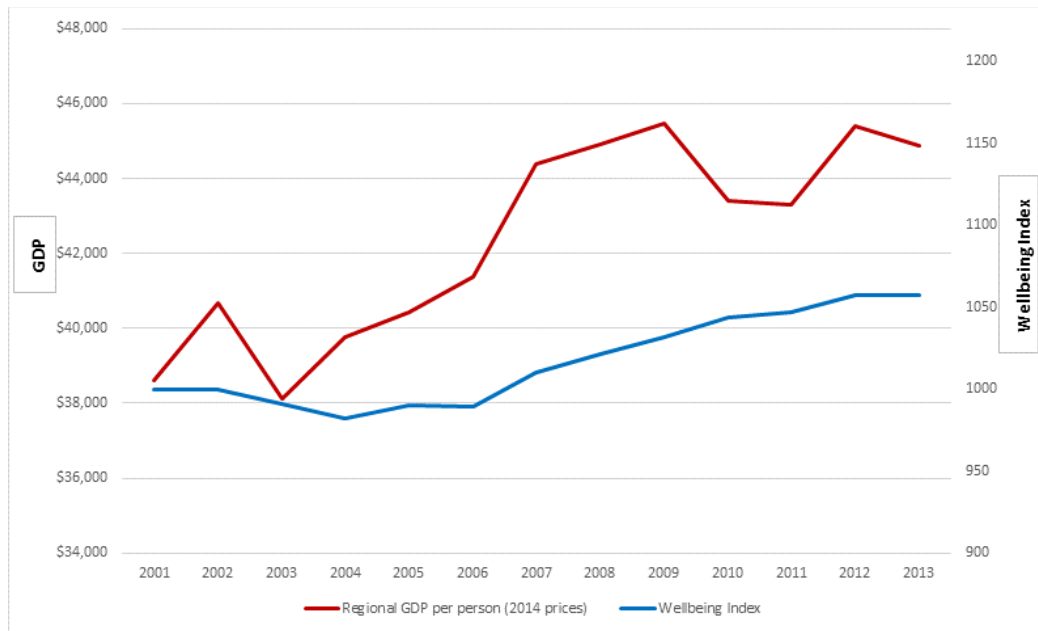


Figure 10 GDP vs Waikato Wellbeing Index (PCA method) 2001-2013.

Source: Huser, Killerby and Patterson 2016. Note: Based on actual and imputed data.

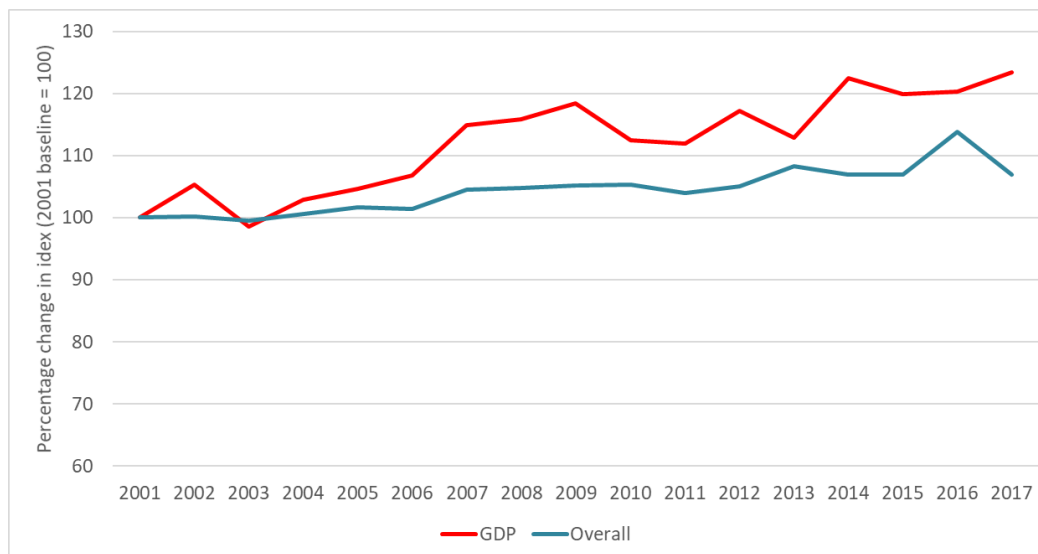


Figure 11 GDP vs Waikato composite indexes (CIW method) 2001-2017.

Source: WPI Monitoring Programme database (Waikato Regional Council)

Note: Based on actual and imputed data.

⁷ Towards a wellbeing index for the Waikato Region. New Zealand Planning Quarterly, Issue 200, March 2016.

7 Next steps

The results of the WPI programme provide a robust basis for discussing regional challenges and opportunities and identifying priorities for closer collaboration and partnerships. Results from the WPI help monitor and inform Council's strategic direction and other region-wide initiatives, such as the [Waikato Plan, economic development, Future Proof](#). Selected individual indicators that reflect Waikato Regional Council's functions and roles are also included as performance measures in Council's Long Term Plan and Annual Report, and other relevant council reports.

Wellbeing frameworks and measures are required to support Government's Wellbeing Budget 2019 and the Local Government (Community Well-being) Amendment Bill that aims to restore the purpose of local government to be *"to promote the social, economic, environmental, and cultural well-being of communities"*.⁸ Treasury has developed a [Living Standards Framework and associated Dashboard](#) to monitor intergenerational wellbeing, supported by Statistics NZ [Indicators Aotearoa New Zealand – Ngā Tūtohu Aotearoa \(IANZ\)](#).

A priority for 2018/19 has been working together with Treasury and Statistics NZ and local government (SOLGM) to align national, regional and local data and indicators. The WPI is included in Treasury's Investment Statement 2018 as a case study of a regional wellbeing framework.⁹ Further work is ongoing towards indicator improvements, better accessibility and communication of indicator results and more harmonised monitoring in New Zealand. This includes working with other regional councils through the Land, Air, Water Aotearoa (LAWA) organisation¹⁰, with the Ministry for the Environment and Statistics NZ on environmental reporting¹¹.

Engaging with strategic regional and local partners to share data, align indicators and combine knowledge to tell progress stories from different perspectives will be a continuing focus for the WPI programme. Partners include Iwi, Hamilton City Council, district councils, Waikato Mayoral Forum, Waikato District Health Board, Te Waka: Waikato's Economic Development Agency and other business and sector groups, New Zealand Transport Agency, New Zealand Treasury, Statistics New Zealand, Ministry for the Environment, Ministry of Social Development, Ministry of Business, Innovation and Employment, community trusts (WEL Energy Trust, Trust Waikato, Momentum/Vital Signs) and other non-government organisations.

In addition to the 32 high level measures, the WPI programme compiles secondary indicators and data broken down by territorial authority (where available) to support closer analysis and develop 'progress stories' about how and why levels of wellbeing are changing over time in the Waikato region. This includes information about distributional aspects, such as by age, gender, ethnicity, income or locality. Regional data can mask local trends so information at the community level is important, for example the mix of drivers for deprivation across the territorial authorities are totally different.¹² The Quality of Life survey 2018, undertaken jointly with

⁸. www.parliament.nz/en/pb/bills-and-laws/bills-proposed-laws/document/BILL_77941/local-government-community-well-being-amendment-bill

⁹ <https://treasury.govt.nz/sites/default/files/2018-03/is18-hphp-wellbeing.pdf> (pages 80-83)

¹⁰ Land, Air, Water Aotearoa (LAWA): <https://www.lawa.org.nz/about/>

¹¹ Environmental indicators:
http://archive.stats.govt.nz/browse_for_stats/environment/environmental-reporting-series/environmental-indicators/Home.aspx

¹² The report *Socioeconomic Deprivation in the Waikato Region – using the Index of Multiple Deprivation* (McMillan and Exeter, 2018) shows that areas within the Waikato region rank among the most deprived areas in New Zealand. The New Zealand Index of Multiple Deprivation (IMD), released

Hamilton City Council, also provides information about people's views and perceptions at the district council level (Killerby and Huser, 2019).

At the global level, the Sustainable Development Goals (SDGs)¹³ adopted in 2015 by all the 193 UN member countries, provide a yardstick to evaluate, assess and measure progress. The SDGs include 17 Goals and 169 targets, and over 230 indicators. The SDGs aim to end poverty, protect the planet and ensure prosperity for all as part of a new sustainable development agenda with specific targets to be achieved by 2030. Governments, communities, corporates and business are adopting the SDGs to demonstrate their relevance and value. Work has started to map and align the WPI with the SDG indicators as they are being developed.

The WPI regional wellbeing monitoring initiative will also work with the Waikato Wellbeing Project¹⁴, a collaborative initiative to achieve a cleaner, greener, fairer Waikato by 2030. Phase One of the project is to develop a defined set of widely agreed wellbeing targets for the Waikato, based on the UN Sustainable Development Goals.

by the University of Auckland last year looks at 28 indicators which are grouped into seven domains of deprivation: employment, income, crime, housing, health, education and access to services.

¹³ Sustainable Development Goals (SDGs): <https://www.un.org/sustainabledevelopment/sustainable-development-goals/>

¹⁴ WEL Energy Trust and Waikato Regional Council are collaborating with Trust Waikato, other community funders, Iwi, business, industry groups, central and local Government, tertiary education and research providers, economic development agencies, community organisations and citizens – working in partnership and alignment with Te Ao Māori.

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Appendix 1 The Waikato Progress Indicators

| Key questions | Topic | Indicator | Definition (current as at April 2019) |
|--|------------------------|------------------------|--|
| Economy | | | |
| How prosperous is our region? How are we planning for a prosperous future? | Economic growth | Regional GDP | Real (inflation adjusted) regional Gross Domestic Product (GDP) per capita |
| Society | | | |
| Are we generally happy with our life? How satisfied are we with our work life balance? | Life satisfaction | Life satisfaction | Percentage of people who rate their overall quality of life positively |
| What are the educational opportunities How qualified and skilled is our workforce? Are education opportunities accessible and adequate | Education | Educational attainment | Percentage of school leavers with NCEA level 2 or above |
| Are we satisfied with our housing? How accessible, adequate and affordable is our housing? | Housing | Housing affordability | Ratio of housing costs to household income |
| Do we feel safe? | Community safety | Perceptions of safety | Percentage of adults who feel safe walking alone in their neighbourhood after dark |
| How safe are we? | Community safety | Crime | Rates of recorded victimisations per 10,000 population (fiscal year) |
| How safe are we? | Community safety | Road safety | Estimated annual social costs of road injury crashes per capita |
| How healthy are we? | Health | Life expectancy | Life expectancy at birth (from Life Tables estimated using Census data) |
| How do we feel about our health and wellbeing? | Health | Perceived health | Percentage of people who rate their overall health good, very good or excellent |
| How well connected are we with our family, neighbourhood and community? | Social connectedness | Social connectedness | Percentage of people who agree or strongly agree that they experience a sense of community with others in their neighbourhood |
| Are we proud about where we live and our community? | Social connectedness | Community pride | People's reported sense of pride in the way their city/town looks and feels |
| How much do we participate in sports, leisure and arts? | Leisure and recreation | Physical activity | Percentage of people who say they were physically active on five or more of the past seven days |
| Do we know and respect other cultures? | Cultural identity | Cultural respect | Level of agreement by survey respondents that New Zealand becoming home for an increasing number of people with different lifestyles and cultures from different countries makes their area a better place to live |

| Key questions | Topic | Indicator | Definition (current as at April 2019) |
|---|----------------------|-------------------------|---|
| Do we recognise and protect our cultural heritage and distinctive identity? How comfortable do we feel about expressing our cultural practices? | Cultural identity | Te Reo Māori speakers | Percentage of Te Reo Māori speakers in the total population |
| Are we involved in our community? How much do we participate in decision making? | Civic engagement | Voter turnout | Average voter turnout in local council, DHB and regional council elections |
| Are we satisfied with our opportunity to participate in (council) decision making? | Civic engagement | Community engagement | Percentage of people who agree that the public have 'large' or 'some' influence over the decisions that their local Council makes |
| How wealthy are we? | Wealth and income | Income | Real median weekly household income |
| Wealth and income | Wealth and income | Income inequality | Gini coefficient – a measure of the concentration of income within the region |
| How prosperous is our region? How are we planning for a prosperous future? | Wealth and income | Building activity | Real value of total new building consents issued per annum (year to June) |
| How many people have a job? How many are unemployed - and how long | Employment | Employment | Employment rate - the proportion of total working age population who are employed |
| Does our infrastructure cope with current and increasing demand? What services are available? | Infrastructure | Public transport | Public transport volumes per capita – average number of passenger transport boardings per resident per annum |
| How do we use our natural resources? How much water do we use? How much have we got? | Resource use | Water use | Water allocation as a percent of total allocable water – Waikato River mouth during summer months |
| Environment | | | |
| How much do we value our environment? Can we sustain a healthy environment <u>and</u> grow our economy? What do we value most? What are the threats to our environment? | Environmental values | Environmental attitudes | Average regional NEP (New Environmental Paradigm) Scale score |
| How good is our water quality? | Land and water | River water quality | River water quality for ecological health – percentage of unsatisfactory river water samples for ecological water quality in Waikato rivers and streams (all sites average) |
| How healthy are our soils? How resilient are we to food production? | Land and water | Soil quality | Percentage of soil monitoring sites meeting five or more soil quality targets - Waikato Region |

| Key questions | Topic | Indicator | Definition (current as at April 2019) |
|---|--------------------|---|--|
| How much land is sub-divided/paved every year? How much of this is fertile soil? | Land and water | Residential expansion onto versatile land | Area (hectares) of versatile land (Land Use Capability classes 1-4) in urban and rural residential use in the Waikato Region |
| How clean is our air? | Air and climate | Air quality | Urban air quality – number of exceedances per year of the regional guideline for particulate matter (all monitoring sites total) |
| Is the climate changing? | Air and climate | Greenhouse gases | National annual total greenhouse gas emissions |
| How much of our environment is protected? What is the health and condition of our ecosystems? | Biodiversity | Indigenous vegetation | Extent of indigenous vegetation on land |
| How healthy is our coastal and marine environment? How safe are our beaches for swimming? | Coastal and marine | Coastal ecosystem health | Traits Based Index (TBI) of the biological traits of sediment-dwelling animal communities in three estuaries the southern Firth of Thames, Whaingaroa (Raglan) Harbour, and Tairua Harbour |
| How much pollution and waste do we produce? What sort of waste do we produce? How much per GDP/product? | Waste | Waste | Estimated tonnage of waste to landfill per annum |
| How much of our waste do we recycle? | Waste | Recycling | Self-reported prevalence of household recycling |

Appendix 2 WPI time series data 2001 to 2018

Key:

Grey cell indicates imputed or extrapolated data

White cell indicates measured data

Note that the trend direction for some of these indicators has a negative interpretation (e.g. crime).

| Indicator | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Regional GDP | \$40,199 | \$42,352 | \$39,646 | \$41,371 | \$42,051 | \$42,928 | \$46,197 | \$46,587 | \$47,632 | \$45,241 | \$44,983 | \$47,143 | \$45,393 | \$49,214 | \$48,217 | \$48,388 | \$49,615 | \$51,451 |
| Life satisfaction | 90% | 90% | 90% | 90% | 90% | 90% | 89% | 89% | 88% | 88% | 87% | 86% | 86% | 85% | 85% | 84% | 86% | 87% |
| Educational attainment | 64.2% | 64.2% | 64.2% | 64.2% | 64.2% | 64.2% | 64.2% | 64.2% | 64.2% | 66.6% | 69.3% | 72.0% | 73.5% | 76.0% | 77.6% | 79.5% | 77.9% | |
| Housing affordability | 15.4% | 15.4% | 15.4% | 15.4% | 15.4% | 15.4% | 15.4% | 14.1% | 15.5% | 13.6% | 14.7% | 16.0% | 14.1% | 16.4% | 14.7% | 16.1% | 15.5% | 15.5% |
| Perceptions of safety | 60% | 60% | 60% | 60% | 60% | 60% | 61% | 61% | 62% | 62% | 63% | 63% | 64% | 64% | 65% | 65% | 65% | 64% |
| Crime | 718.5 | 720.8 | 684.5 | 654.9 | 601.3 | 695.5 | 709.2 | 665.9 | 662.6 | 709.5 | 687.9 | 678.3 | 592.3 | 599.2 | 546.9 | 619.3 | 645.0 | 645.0 |
| Road safety | 1,462 | 1,462 | 1,462 | 1,462 | 1,767 | 1,554 | 1,923 | 1,658 | 1,454 | 1,353 | 1,332 | 1,196 | 923 | 1,065 | 1,273 | 1,256 | 1,265 | |
| Life expectancy | 78.5 | 78.8 | 79.0 | 79.3 | 79.5 | 79.8 | 80.0 | 80.1 | 80.3 | 80.5 | 80.6 | 80.8 | 81.0 | 81.0 | 81.0 | 81.0 | 81.0 | |
| Perceived health | 90% | 90% | 90% | 90% | 90% | 90% | 89% | 89% | 88% | 88% | 87% | 86% | 86% | 85% | 85% | 84% | 82% | 79% |
| Social connectedness | 63% | 63% | 63% | 63% | 63% | 63% | 63% | 63% | 64% | 64% | 64% | 64% | 64% | 65% | 65% | 65% | 64% | 62% |
| Community pride | 70% | 70% | 70% | 70% | 70% | 70% | 70% | 70% | 69% | 69% | 69% | 69% | 69% | 68% | 68% | 68% | 65% | 62% |
| Physical activity | 61% | 61% | 61% | 61% | 61% | 61% | 60% | 58% | 57% | 55% | 54% | 53% | 51% | 50% | 48% | 47% | 44% | 40% |
| Cultural respect | 51% | 51% | 51% | 51% | 51% | 51% | 50% | 49% | 49% | 48% | 47% | 46% | 45% | 45% | 44% | 43% | 42% | 41% |
| Te Reo Māori speakers | 6.4% | 6.3% | 6.2% | 6.0% | 5.9% | 5.8% | 5.7% | 5.7% | 5.6% | 5.5% | 5.4% | 5.4% | 5.3% | 5.3% | 5.3% | 5.3% | 5.3% | |
| Voter turnout | 37.6% | 37.6% | 37.6% | 37.6% | 37.6% | 37.6% | 37.6% | 38.9% | 40.2% | 41.5% | 40.9% | 40.3% | 39.7% | 39.1% | 38.5% | 37.0% | 37.0% | |
| Community engagement | 62% | 62% | 62% | 62% | 62% | 62% | 60% | 59% | 57% | 56% | 54% | 52% | 51% | 49% | 48% | 46% | 41% | 36% |
| Income | \$1,145 | \$1,194 | \$1,221 | \$1,174 | \$1,290 | \$1,336 | \$1,377 | \$1,407 | \$1,381 | \$1,303 | \$1,237 | \$1,307 | \$1,320 | \$1,263 | \$1,374 | \$1,535 | \$1,520 | \$1,678 |
| Income inequality | 0.373 | 0.373 | 0.373 | 0.373 | 0.373 | 0.373 | 0.373 | 0.435 | 0.340 | 0.379 | 0.418 | 0.440 | 0.371 | 0.406 | 0.470 | 0.413 | 0.417 | |
| Building activity | 646 | 662 | 806 | 1,175 | 1,322 | 1,254 | 1,389 | 1,233 | 970 | 887 | 765 | 755 | 862 | 1,056 | 1,074 | 1,446 | 1,528 | 1,675 |
| Employment | 66.7% | 66.7% | 66.7% | 66.7% | 66.7% | 66.7% | 67.1% | 66.8% | 64.8% | 63.7% | 64.7% | 62.7% | 63.8% | 64.2% | 64.3% | 65.2% | 68.8% | 69.9% |
| Public transport | 4.2 | 4.3 | 4.5 | 4.9 | 5.1 | 5.5 | 7.3 | 9.1 | 11.1 | 11.0 | 10.9 | 12.2 | 11.9 | 10.1 | 9.9 | 9.1 | 8.7 | 8.5 |
| Water use | 67% | 67% | 67% | 67% | 67% | 67% | 67% | 65% | 64% | 69% | 72% | 76% | 87% | 86% | 86% | 86% | 85% | 86% |
| Environmental attitudes | 77% | 77% | 77% | 77% | 79% | 81% | 83% | 86% | 86% | 87% | 88% | 88% | 89% | 89% | 88% | 88% | 88% | 87% |
| River water quality | 29.0% | 29.0% | 29.0% | 29.0% | 29.0% | 29.0% | 29.0% | 29.0% | 29.0% | 29.0% | 29.0% | 29.0% | 29.0% | 28.0% | 27.9% | 28.0% | 28.0% | 29.0% |
| Soil quality | 85% | 85% | 85% | 84% | 84% | 84% | 86% | 86% | 80% | 84% | 82% | 82% | 79% | 79% | 79% | 84% | 86% | |
| Residential expansion onto versatile land | 8,613 | 9,344 | 10,074 | 10,805 | 11,535 | 12,266 | 12,997 | 13,727 | 14,098 | 14,470 | 14,841 | 15,213 | 15,627 | 16,042 | 16,457 | 16,872 | 17,287 | |
| Air quality | 17 | 17 | 27 | 50 | 38 | 47 | 20 | 28 | 38 | 22 | 20 | 17 | 12 | 11 | 10 | 5 | 12 | 2 |
| Greenhouse gases | 79,103 | 79,387 | 81,591 | 81,251 | 83,270 | 83,442 | 81,325 | 81,267 | 78,477 | 78,965 | 78,679 | 81,055 | 80,541 | 81,310 | 81,202 | 79,136 | 80,853 | |
| Indigenous vegetation | 27.2% | 27.2% | 27.2% | 27.2% | 27.2% | 27.2% | 27.2% | 27.2% | 27.2% | 27.2% | 27.2% | 27.2% | 27.2% | 27.2% | 27.2% | 27.2% | 27.2% | |
| Coastal ecosystem health | 0.40 | 0.40 | 0.40 | 0.40 | 0.40 | 0.40 | 0.40 | 0.40 | 0.40 | 0.40 | 0.40 | 0.40 | 0.38 | 0.38 | 0.38 | 0.41 | 0.40 | |
| Waste | 222,000 | 222,000 | 222,000 | 222,000 | 222,000 | 222,000 | 222,815 | 223,629 | 224,444 | 225,258 | 226,073 | 226,887 | 227,499 | 228,111 | 228,723 | 224,732 | 220,741 | |
| Recycling | 66.2% | 66.2% | 66.2% | 66.2% | 66.2% | 66.2% | 66.2% | 66.2% | 68.9% | 71.5% | 70.9% | 70.3% | 70.3% | 70.3% | 70.3% | 70.3% | 70.3% | |

