

Waikato progress indicators – *Tupuranga Waikato*

Summary update June 2023



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1 Purpose

This document summarises latest results from the Waikato Progress Indicators (WPI) – *Tupuranga Waikato* monitoring programme, updated in May 2023. The WPI is an online dashboard of 32 economic, social, cultural and environmental indicators.¹ The WPI framework and indicators are aligned with the Council’s Strategy and its purpose of “*working together for a Waikato region that has a healthy environment, strong economy and vibrant communities*”.

The WPI dashboard provides an overview of the economic, social, cultural and environmental wellbeing of the Waikato region and helps gauge progress towards Waikato Regional Council’s (WRC’s) Strategy and Community Outcomes.² Selected measures relevant to Council’s activities are included in WRC’s Long Term Plan 2021-2031,³ Annual Reports,⁴ and other council documents.

The data and [website](#) information are refreshed annually.

This update compares the latest available data for each of the WPI indicators with 2006-07 baseline results as well as more recent trends, enabling regional progress to be assessed over more than a decade as well as over the last 4-5 years. 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 Act 2019 restored the purpose of local government to be “*to promote the social, economic, environmental, and cultural well-being of communities in the present and for the future*”.⁴

The 32 WPI indicators (Appendix 1) were selected as success measures for the region, building on existing good practice programmes including the Waikato Regional Council environmental indicators and the former MARCO (monitoring and reporting community outcomes) indicator programme. The MARCO indicators were based on desired community outcomes identified in a comprehensive and participatory stakeholder process (*Choosing Futures Waikato – “what matters most to our people and communities”*).⁵ For further background on the development and design of the WPI programme, including the selection of indicators, refer to Killerby and Huser (2014).⁶

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 (wellbeing index)
7. Other wellbeing initiatives
8. Next steps.

¹ www.waikatoregion.govt.nz/wpi/

² <https://wrcstrategicdirection.squarespace.com/>

³ <https://waikatoregion.govt.nz/services/publications/ltp-2021-2031/>

⁴ www.legislation.govt.nz/act/public/2002/0084/latest/versions.aspx/

⁵ www.waikatoregion.govt.nz/assets/PageFiles/36757/CFW_Where_to_from_here_3_Jul_2007.pdf

⁶ www.waikatoregion.govt.nz/assets/WRC/WRC-2019/TR201444.pdf

2 Latest results

Results from the WPI monitoring programme are presented through Indicator Report Cards; Waikato Region Scorecard; Circles of wellbeing; and comparisons with other regions and New Zealand.

The 32 indicators, and how they relate to community aspirations and outcomes, are described in Appendix 1. The results for each indicator (primary dataset 2001 to latest available data) are tabulated in Appendix 2.

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 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 latest available data are, in declining order (most positive trend first):

- + Increase in building activity – increase in real value of new building consents issued per year from \$3,963 per capita in 2007 (expressed in 2022 dollars) to \$5,695 in 2021.
- + Increased road safety – long-run decrease in the social cost per capita of road injury crashes, from approximately \$7,531 in 2007 (expressed in 2022 dollars) to \$4,376 in 2021.⁷
- + Improved air quality – decrease in annual exceedances per year of the regional quality guideline for particulate matter in air, from 20 in 2007 to 15 in 2022.⁸
- + Higher average incomes – increase in real median weekly household income from around \$1,570 in 2007 (expressed in 2022 dollars) to over \$1,900 in 2022.
- + Better educational attainment – increase in the percentage of school leavers with NCEA level 2 or above from 64% in 2009 to 77% in 2021.
- + Growth in regional GDP – increase in real regional GDP per capita from approximately \$54,000 per annum in 2007 (expressed in 2022 dollars) to around \$63,700 in 2022.
- + Higher rate of voter turnout – increase in voter turnout for local council, DHB and regional council elections from an average of 38% in 2007 to 42% in 2019. Statistics from the 2022 local elections released in June 2023 are yet to be incorporated into the WPI dataset.⁹

⁷ 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 and Figure 3). This is influenced by the extent of open roads and substantial transit traffic through the region. Also note, the social cost estimates here are substantially higher than in previous WPI updates because the base Value of Statistical Life (VOSL) was completely redone in a study published in earlier 2023.

⁸ There is a time series break from around 2019/20 due to the roll-out of new optical based monitors which measure more exceedances than the older monitors. This means that the long-term improvement is likely under-stated here.

⁹ www.votelocal.co.nz/final-voter-turnout-results/

- + 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 2012.¹⁰
- + Improvement in soil quality – increase in the percentage of soil quality monitoring sites in meeting five or more of the seven soil quality targets, from 86% in 2007 to 91% in 2022.
- + 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 63% in 2022.
- + Longer life expectancy – currently approximately 80 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.

There has also been an apparent improvement in housing affordability compared to the baseline year, however due to a high level of annual variance in this indicator, the improvement is not considered significant.

Negative trends over the period approximately 2006-07 to latest available data include, in declining order (most negative trend first):

- 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, from 62% in 2006 to 31% in 2022.
- Less use of public transport – decrease in public transport boardings per resident per annum from 9.1 in 2007/08 to 4.7 in 2021/22.
- More waste to landfill – the estimated tonnage of waste to class 1 landfill per year in the Waikato region increased from approximately 220,000 tonnes in 2006 to almost 310,000 in 2020.
- Higher water use – increase in water allocation as a percentage of primary allocable flow at the Waikato River mouth during the summer months from 67% in 2007 to 90% in 2022.¹¹
- Lower frequency of 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, from 61% in 2006 to 41% in 2022.
- Lower levels of cultural respect – decrease in the percentage of survey respondents who agree that New Zealand becoming home for an increasing number of people with different lifestyles and cultures from different countries made their city/area a better place to live, from 51% in 2006 to 39% in 2022.
- More residential expansion onto highly productive land – increase in urban and rural residential use of highly productive land in the Waikato region, from 15,862 hectares in 2008 to 19,510 in 2019. The greatest amount of subdivision has been occurring on land classed as having higher productive capabilities.
- Worse perceived health – decrease in the percentage of survey respondents who rate their overall health positively, from 90% in 2006 to 80% in 2022.
- Lower levels of social connectedness – decrease in the percentage of survey respondents who agreed that they experienced a sense of community with others in their neighbourhood, from 63% in 2006 to 57% in 2022.
- Lower levels of community pride – decrease in the percentage of survey respondents who agree they feel a sense of pride in the way their local area looks and feels, from 70% in 2006 to 64% in 2022.
- Lower levels of life satisfaction – decrease in the percentage of survey respondents who rated their overall quality of life positively, from 90% in 2006 to 86% in 2022.

¹⁰ Frequency of this question under the New Zealand General Social Survey (Statistics NZ) framework will likely be at least 10 yearly intervals. There was no recycling question in 2014, 2016, 2018 or 2021.

¹¹ Allocation of water up to 100% of the allocable flow is not necessarily negative, but the observed trend of increasing allocation towards the total allocable flow adds pressure on our water resources. The percentage allocated has increased following the Watercare consent granted in January 2022.

The remaining ten WPI indicators do not show a significant change between 2006-07 and latest available data.

Tupuranga Waikato Waikato progress indicators



Scorecard 2023

The Waikato progress indicators (WPI) measures social, economic and environmental progress in the Waikato region.

This scorecard compares latest data with baseline results for each indicator (2006 - 2007). For each of the 32 indicators, results are shown as improving trends, worsening trends or no significant change over the last 15 years. The indicators are grouped by wellbeing theme - economic, social and environmental wellbeing. For further information refer to waikatoregion.govt.nz/wpi

Improving trend	Worsening trend	No significant change



June 2023 (7379)

Figure 1 WPI trends – Scorecard for approximately 2006-07 to latest available data (refer Appendix 2 for data).

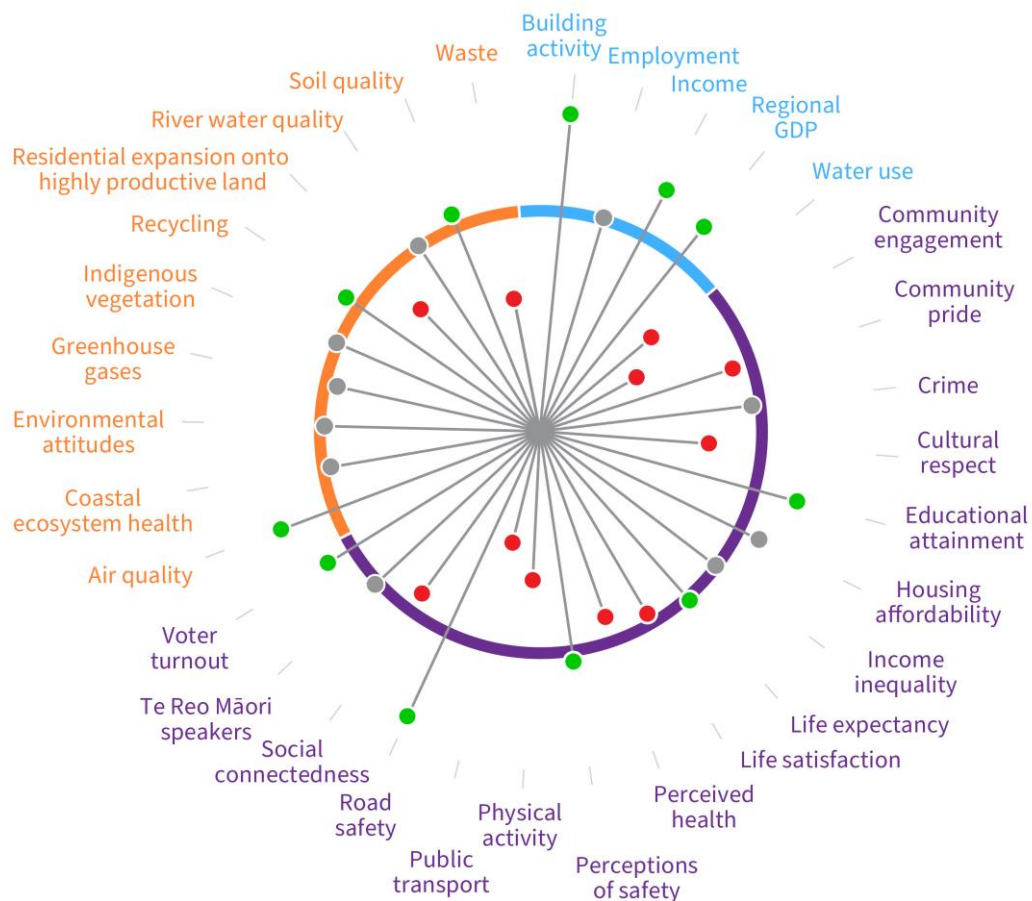
Source: WPI Monitoring Programme database (Waikato Regional Council)

2.3 Circles of Wellbeing

The WPI circle of wellbeing captures trend information about many indicators in one diagram. In addition to the simple 'better/worse/same' trend information provided in the scorecard (Figure 1), the circle of wellbeing diagrams also show the magnitude of any changes over time. The central circle represents the WPI score for each indicator in the Waikato region in the baseline year and the spokes show WPI score progress to latest available data. Where a spoke extends outside the 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. 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 diagrams below will give an increasingly accurate signal of long-term regional progress.

As per the overall WPI Scorecard (Figure 1 above), the most notable **positive trends** over the long-term period 2006-07 to latest available data as shown in Figure 2 below (first circle) are, in declining order: building activity, road safety, air quality, incomes, educational attainment, regional GDP growth, voter turnout, recycling, soil quality, perceptions of safety and life expectancy, along with an apparent improvement in housing affordability compared to the baseline year. The largest **negative trends** over this period are poorer perceptions of community engagement, less use of public transport, more waste to landfill, higher water use, lower frequency of physical activity, lower perceptions of cultural respect, more residential expansion onto highly productive land, worse perceived health, and lower levels of social connectedness, community pride and life satisfaction.

Long term trends (2006/07 to latest data)



Short term trends (2018 to latest data)



Figure 2 WPI indicator long-term (2006-07 to latest available data) and short-term (2018 to latest available data), Waikato region

Source: WPI Monitoring Programme database (Waikato Regional Council)

The second circle in Figure 2 takes the same approach but focuses on the more recent trend for the Waikato region from 2018 to latest available data. Observations from these graphs and supporting WPI information include:

- Criminal offence data had previously been improving over the longer-term, but since 2018 the Waikato annual regional crime rate has trended upward.
- Community pride increased slightly between the 2018 and 2022 survey years.
- There has been a small decline in the employment rate from its 2018 record level.
- There was an apparent decline (improvement) in income inequality since 2018, and an apparent improvement in housing affordability, however these indicators can be highly variable from year to year.
- Similarly, there was an apparent increase in greenhouse gas emissions since 2018, but not enough to call this a significant adverse trend.
- Over the longer-term, air quality shows an improvement but for the period 2018 to 2022 there was an increase in the number of exceedances per year. This has been colour-coded as no significant change, due to the roll-out of new monitors which measure higher than the older monitors.
- Educational attainment of school leavers peaked in 2016 and has been relatively stable since then.

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, cultural, and environmental wellbeing indicators.

Indicator	Waikato	Auckland	Wellington	Bay of Plenty	New Zealand
Building activity (\$m)	\$5,695	\$6,679	\$3,595	\$3,638	\$5,375
Employment	67.1%	69.9%	71.7%	64.3%	68.2%
Income	\$1,935	\$2,296	\$2,386	\$1,933	\$2,014
Regional GDP	\$63,713	\$80,328	\$82,772	\$62,673	\$70,617
Water use	90%	n/a	n/a	n/a	n/a
Community engagement	31%	pending	pending	n/a	28%
Community pride	64%	pending	pending	n/a	55%
Crime	827	728	652	753	690
Cultural respect	39%	pending	pending	n/a	n/a
Educational attainment	77.2%	84.9%	85.1%	74.6%	78.7%
Housing affordability	18.4%	22.3%	20.9%	18.4%	20.1%
Income inequality	0.352	0.402	0.401	0.354	0.377
Life expectancy	81.4	82.7	81.9	81.2	81.8
Life satisfaction	86%	pending	pending	n/a	83%
Perceived health	80%	pending	pending	n/a	n/a
Perceptions of safety	63%	pending	pending	n/a	n/a
Physical activity	41%	pending	pending	n/a	35%
Public transport	4.7	24.3	47.7	6.5	16.9
Road safety	\$4,376	\$2,344	\$2,319	\$4,401	\$3,386
Social connectedness	57%	pending	pending	n/a	49%
Te Reo Māori speakers	5.9%	2.4%	3.5%	8.6%	4.0%
Voter turnout	42.4%	35.0%	43.5%	43.5%	43.0%
Air quality	15	n/a	n/a	n/a	n/a
Coastal ecosystem health	0.39	n/a	n/a	n/a	n/a
Environmental attitudes	83%	n/a	n/a	n/a	n/a
Greenhouse gases	16.2	n/a	n/a	n/a	n/a
Indigenous vegetation	27.1%	n/a	n/a	n/a	n/a
Recycling	70.3%	86.1%	79.2%	72.6%	80.1%
Residential expansion onto highly productive land	19,510	n/a	n/a	n/a	n/a
River water quality	29%	n/a	n/a	n/a	n/a
Soil quality	91%	n/a	n/a	n/a	n/a
Waste	308,885	n/a	n/a	143,523	n/a

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. residential expansion onto highly productive land, greenhouse gases).

Comparisons of the Waikato region with the 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 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. For all WPI indicators not shown, directly comparable national results are not available.

The diagram shows that compared to the national average, the Waikato region:

- has a relatively high percentage of Te Reo Māori speakers, high frequency of physical activity, high levels of community pride and social connectedness (sense of community experienced), above-average levels of community engagement (perception of public's influence on Council decision making), slightly higher level of life satisfaction (overall quality of life), a slightly higher value of building activity per capita, more affordable housing, and less income inequality; but
- is behind the national average on a range of indicators, including regional road safety, crime, recycling, GDP per person and household incomes.



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

3.1 WPI results

Latest WPI results suggest the New Zealand economy has been relatively resilient throughout 2021 and 2022, following the worst of the COVID-19 pandemic. This is reflected in the Waikato economy:

- + The real value of annual new building consents per capita, a lead indicator of economic activity, was at a record level of around \$5,700 in 2022 (Figure 4).
- + Real median weekly household income has also stayed at a relatively high level (Figure 5).
- + Regional GDP per person has shown a similarly strong pattern, increasing from around \$62,000 per annum in 2021 (in 2022 dollars) to \$63,700 in 2022 (Appendix 2).
- + Increased economic activity is also reflected in higher water use, with an increase in water allocation as a percentage of primary allocable flow at the Waikato River mouth during the summer months from 67% in 2007 to 90% in 2022 (Appendix 2).

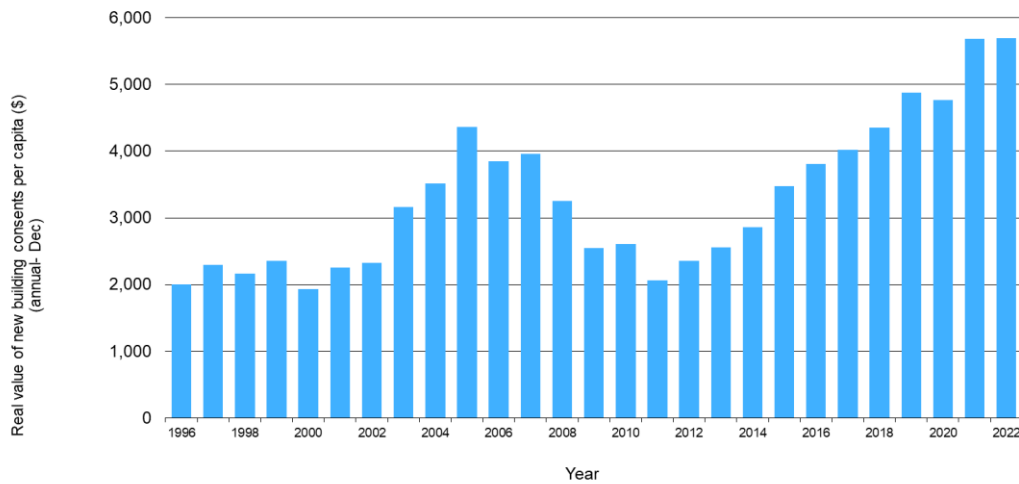


Figure 4 Real value of new building consents authorised per capita (\$) (annual – Dec)

Source: WPI Monitoring Programme database (Waikato Regional Council)

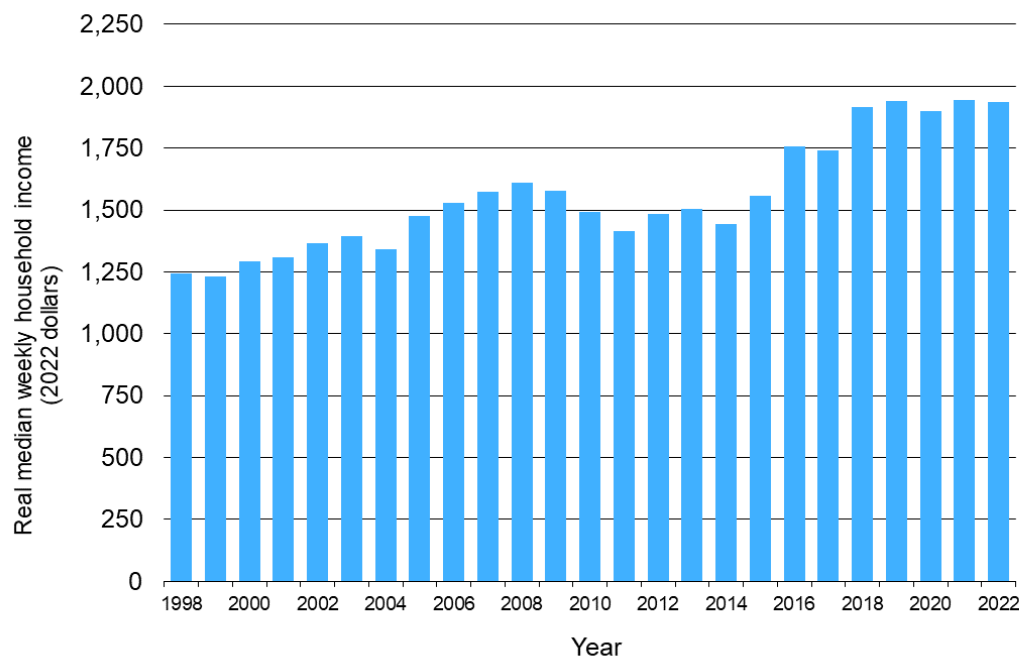


Figure 5 Real median weekly household income (2022 dollars)

Source: WPI Monitoring Programme database (Waikato Regional Council)

3.2 Additional context and insights

The WPI covers only selected data and measures. Additional context and insights can be gleaned by more focused analysis.¹² For example, positive aspects of the Waikato regional economy include:

- + The Waikato region has a rapidly growing population, driven particularly by Hamilton City and the Waikato and Waipā Districts.
- + Labour force participation is high, and unemployment is very low.
- + Collectively, the Waikato region provides 13% of New Zealand's exports of goods and services, well above its share of national GDP.
- + The Waikato regional economy and export base has large contributions from the primary industries, particularly agriculture including dairy farming, as well as food manufacturing.
- + The region's Māori economy continues to emerge as an economic force.

Negative aspects include:

- Productivity (GDP per worker) has been sluggish for an extended period and has declined over the last five years. Reversing this poor productivity performance would yield significant benefits, if done in a way that can be sustained.
- High inflation is creating challenges for businesses to control costs and make sound investment decisions.
- The apparent roll-back in globalisation, rising geo-political tensions, and food security concerns in some of our export markets, may also create issues for our export-oriented primary industries.
- The effects of climate change will have to be adapted to.

4 Social and cultural trends

4.1 WPI results

A difference compared to last year's WPI update is that the crime rate per 10,000 population has increased substantially compared to record low rates seen during the prior decade. The 2022 rate of 827 per 10,000 is similar to annual levels last seen in the mid-2000s. The rising crime rate is underpinned by a rapid increase in theft, unlawful entry, robbery, and related offences.

¹² Keenan, B, Mackay, S and Paragahawewa, U. 2022. The economy of the Waikato region in 2022. Waikato Regional Council Technical Report 2022/17. www.waikatoregion.govt.nz/services/publications/tr202217/

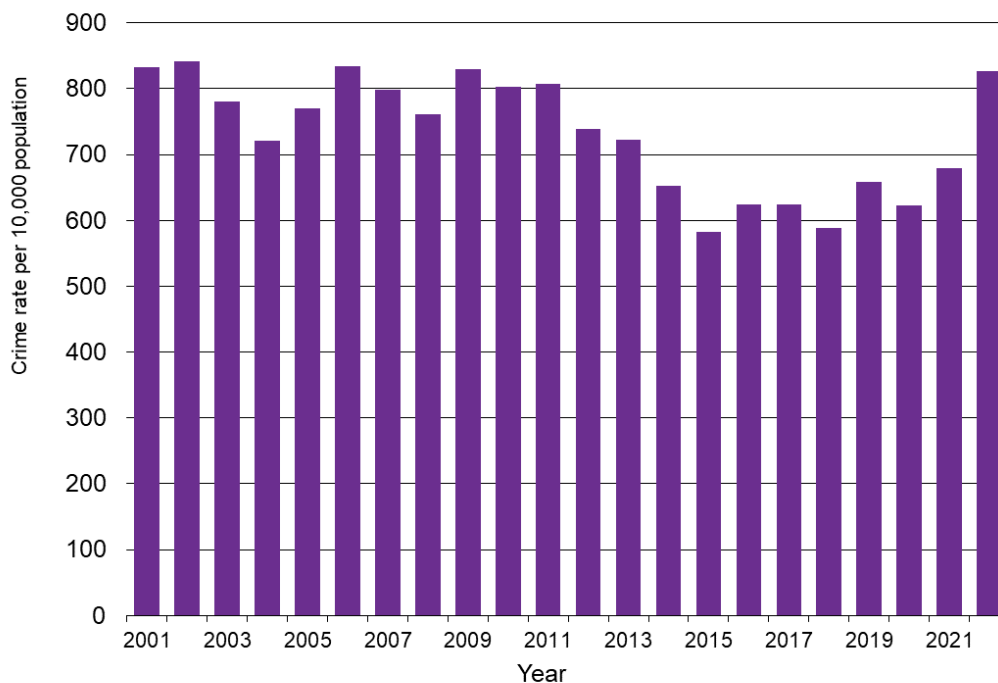


Figure 6 Crime rate per 10,000 population

Source: WPI Monitoring Programme database (Waikato Regional Council)

Overall, the 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.
- + Increase in voter turnout for local council, DHB and regional council elections.
- + Increase in the percentage of people who report feeling safe walking alone in their neighbourhood after dark.
- + 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.
- Use public transport.
- Are physically active on a regular basis.
- 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.
- Experience a sense of community with others in their neighbourhood.
- Feel a sense of pride in the way their local area looks and feels.
- Rate their overall quality of life positively.

4.2 Additional context and insights

Additional context and insights can be found from other information sources, for example “Te Tai Waiora: Wellbeing in Aotearoa New Zealand 2022” prepared by the New Zealand Treasury.¹³ Key positive aspects identified in this report include:

¹³ The Treasury, 2022. Te Tai Waiora: Wellbeing in Aotearoa New Zealand 2022. www.treasury.govt.nz/publications/wellbeing-report/te-tai-waiora-2022

- + Life in New Zealand has improved in many ways over the past twenty years. For example, we are now healthier and live longer, are safer on our roads and workplaces, and our incomes are far higher than in the past.
- + Compared to other OECD countries, New Zealand is a good place to live in many ways. We enjoy very clean air, strong relationships, high life satisfaction and have a relatively high level of social cohesion and trust in one another.
- + New Zealand is a generally good place to live for most older people, with high levels of social support and a low likelihood of poverty.
- + Gaps in wellbeing across demographic groups have generally not widened significantly over the COVID-19 pandemic period. However, it is possible that we are yet to see the longer-term impacts of COVID-19, resulting from the disrupted schooling and health services.

Key negative aspects include:

- New Zealand performs less well on wellbeing for children and young people. Child poverty rates are declining but there are still many children and young people who have experienced poverty for much of their lives, including many disabled children and children in sole parent families. The evidence suggests that these children are likely to do less well over the course of their lives.
- An increasing number of children are not attending school, and each year growing numbers of children are reaching age 15 without basic levels of literacy and numeracy.
- Teenagers and young adults have rapidly increasing levels of psychological distress, and our teen suicide rate continues to be among the worst in the OECD.
- Changes in our housing markets have made it more difficult for young people to progress into home ownership. Renting is becoming increasingly common well into people's 30s and 40s, and our rental housing is among the least affordable in the OECD, particularly for people with the lowest incomes.

Other, more specialised information sources are also available for specific areas of interest. For example, New Zealand Police routinely releases data on the last working day of each month via an interactive reporting tool known as policedata.nz. Analysis of this dataset shows that:

- During 2022 there were around 36,000 victimisations reported within the Waikato Police Boundary, predominantly theft and related offences (55%) followed by unlawful entry with intent/burglary, break and enter (22%), acts intended to cause injury (20%) and other crime types (3%).
- Total victimisations in the Waikato Police Boundary increased by 25% in 2022 compared to 2021, largely driven by a rapid increase in theft and related offences (+38%) as well as increases in unlawful entries and robberies.

5 Environmental trends

5.1 WPI results

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.¹⁴

¹⁴ There is a time series break from around 2019/20 due to the roll-out of new optical based monitors which measure more exceedances than the older monitors. This means that the long-term improvement is likely under-stated here.

- + Improved soil quality, with 91% of soil quality monitoring sites in the Waikato region meeting five or more soil quality targets in 2022 compared to 86% in 2007 (Figure 7).
- + Increase in recycling between 2008 and 2012 (most recent data available).

Negatives include:

- Increased volume of waste to landfill, from an estimated 220,000 tonnes in 2006 to almost 310,000 in 2020.
- Increase in urban and rural residential expansion onto highly productive land.

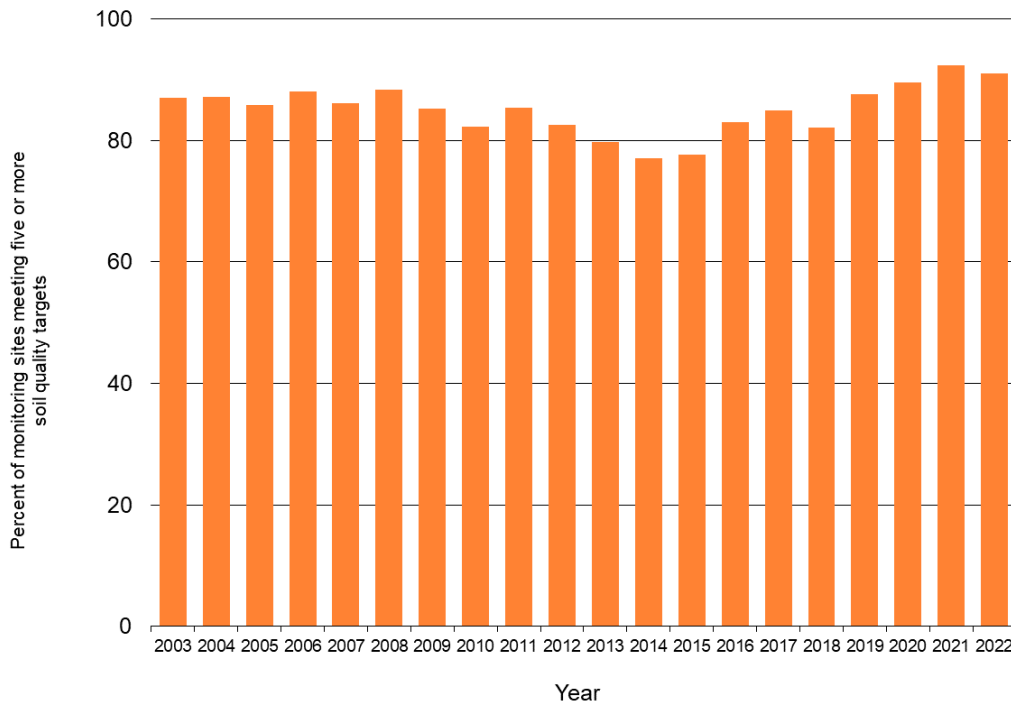


Figure 7 Soil quality – Percentage of monitoring sites meeting five or more quality targets

Source: WPI Monitoring Programme database (Waikato Regional Council)

5.2 Additional context and insights

Additional context and insights can be found in specialist publications, for example the Waikato State of the Environment report (*in press*). Key positive environmental aspects include:

- + Air quality is mostly good, although some urban areas in winter do not meet national air quality standards.
- + Soil quality is improving overall, although compaction and excessively high fertility are still issues on some farms.
- + The load of contaminants to rivers has decreased, contributing to decreasing phosphorus levels.
- + Lake Taupō is achieving water quality targets ahead of schedule, following the introduction of a nitrogen cap and trade scheme.

Key negative aspects include:

- A rising population has seen urban development encroach on surrounding farmland.
- The area of land used for pastoral farming and land use intensification have both increased, driven by conversion of planted forest to pastoral land and dairy farms.
- About 75% of the region's peatlands have been drained, releasing significant emissions of carbon dioxide, which contribute to climate change.
- River flow has reduced markedly, due to less rainfall (2011-2020), increased evaporation, and increased water use for irrigation.

- Water security is of increasing concern, particularly for the growing population of Hamilton.
- Diffuse nitrogen has continued to worsen in many rivers and streams.
- Despite extensive fencing and planting of streambanks by farmers and community groups, bacteria levels in our rivers remain high.
- Many shallow lakes are dominated by algae blooms.
- Lowland waterways are in a degraded state, and many rivers do not meet national bottom lines for ecosystem health.
- Wetlands and forest continue to be subject to development pressures.

In addition, the 2022 “Your environment – what matters?” survey report (WRC Technical Report 2022/48) revealed that:¹⁵

- Issues identified by residents as most important for the region in five years’ time include water quality, climate change, population and urban growth, and consequential pressures on infrastructure and air quality.
- Respondents’ self-rated knowledge of environmental issues declined slightly from the 2019 survey, with a greater number of respondents rating their knowledge as poor (9% in 2019, 14% in 2022).
- There was an increase in the proportion of respondents rated mid-ecological, a decrease in those rated pro-ecological, and an increase in the proportion of those rated anti-ecological.
- 75% of respondents reported concern with the effects of climate change, and 73% had undertaken activities to reduce greenhouse gas emissions (an increase of 7% since 2019). The primary actions people took to reduce emissions were adopting more eco-friendly travel methods (35%) or changing heating/electricity methods (10%).
- 77% percent of respondents agreed that their household does all they can to reduce waste, while 46% agreed that they would like to reduce their waste more but were unsure how. Most respondents agreed that individuals (89%), businesses (88%), and Waikato Regional Council (80%) were all responsible for waste reduction.

6 Overall progress (wellbeing index)

Work has been undertaken to investigate methods for deriving a composite index using the WPI dataset (Huser *et al.* 2016).¹⁶ This has involved combining all 32 WPI indicators into a single composite number (index). Approaches explored to derive an experimental Waikato Wellbeing Index have included Principal Components Analysis (PCA) and the Canadian Index of Wellbeing (CIW) reference-year method (Michalos *et al.* 2011). Both approaches show a common pattern.

As illustrated below (Figure 8), the gap between GDP and the Wellbeing Index grew from 2003 to 2009, then narrowed and eventually grew again as the economy rebounded after the global financial crisis (GFC). By 2019 there was a sizeable gap between the regional GDP measure and WPI overall wellbeing index, and this gap has now widened further.

In summary, while real GDP per capita has generally increased over the past decade, overall community wellbeing as measured using the WPI indicators increased at a slower pace and has slightly declined in recent years.

¹⁵ Hackell, M. 2022. Your environment – what matters, Waikato Regional Council Technical Report, 2022/48. www.waikatoregion.govt.nz/services/publications/tr202248/

¹⁶ *Towards a wellbeing index for the Waikato Region*. New Zealand Planning Quarterly, Issue 200, 2016.

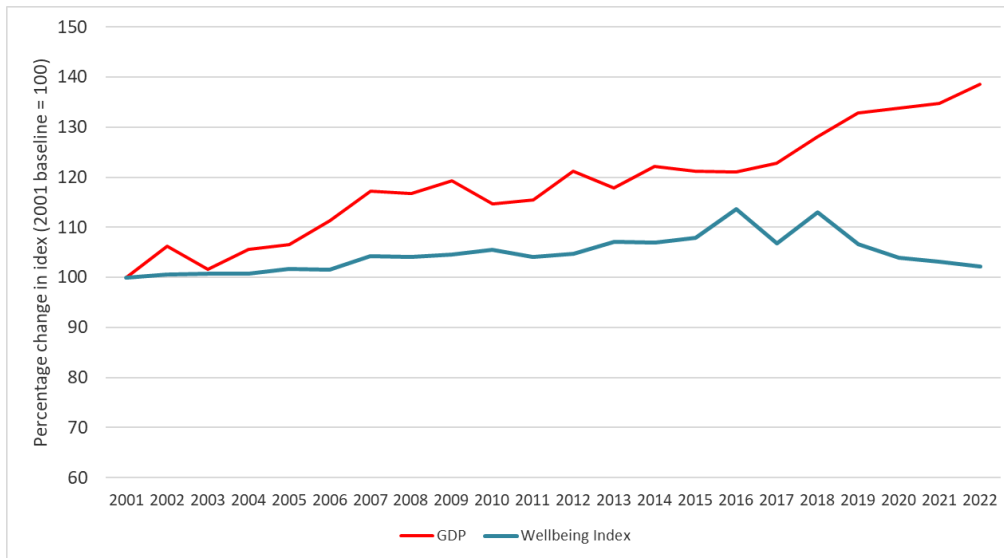


Figure 8 GDP vs Waikato Wellbeing Index (CIW method) 2001-2022 (provisional)

Source: WPI Monitoring Programme database (Waikato Regional Council)

Note: Based on actual and imputed data (2022 index is provisional).

7 Other wellbeing initiatives

Monitoring and reporting on progress towards economic, social, cultural, and environmental wellbeing requires a collaborative approach engaging and working across central and local government, iwi, business, communities, and other stakeholders.

The WPI wellbeing framework and indicators build on and are aligned with relevant national initiatives. Treasury has developed a Living Standards Framework and associated Dashboard¹⁷ to monitor intergenerational wellbeing and support Government’s Wellbeing Budgets. In 2020, the Public Finance Act (1989) was amended to require the Treasury to produce a Wellbeing Report at least once every four years (the first report was released in November 2022).¹⁸ This is underpinned by Statistics NZ’s set of wellbeing indicators (*Ngā Tūtohu Aotearoa – Indicators Aotearoa New Zealand*).¹⁹ Many of the WPI indicators are the same/similar as those used nationally, allowing a comparison between Waikato and New Zealand data (Figure 3).

In the Waikato the WPI project works closely with other councils, community trusts and the Waikato Wellbeing Project (WWP), sharing data and knowledge.²⁰ The WWP uses the global Sustainable Development Goals²¹ as a framework to identify relevant local targets for the Waikato. Progress on these WWP targets have recently been reported by collating available local data, comparing these with New Zealand and global data, and presenting additional background information.²²

¹⁷ www.treasury.govt.nz/publications/commissioned-report/treasury-living-standards-dashboard-monitoring-intergenerational-wellbeing

¹⁸ www.treasury.govt.nz/publications/strategies-and-plans/wellbeing-report

¹⁹ www.stats.govt.nz/reports/indicators-aotearoa-new-zealand-nga-tutohu-aotearoa-key-findings-from-consultation-and-engagement

²⁰ www.waikatowellbeingproject.co.nz/

²¹ In 2015, all 193 UN member countries adopted a set of goals to target the world’s most pressing issues. Referred to as the Sustainable Development Goals (SDGs), these 17 goals and their 169 targets seek to end poverty, protect the planet, and ensure that all people enjoy peace and prosperity by promoting inclusive, equitable, safe, and sustainable societies. www.un.org/sustainabledevelopment/sustainable-development-goals/

²² Wellbeing Progress Update, 2023. Waikato Wellbeing Project. <https://issuu.com/waikatowellbeingproject/docs/wwb-annual-report-final-new-lr>

8 Next steps

The results of the WPI programme provide a robust basis for discussing regional challenges and opportunities and identifying priorities for actions through 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 Proof²³ and other growth strategies and spatial plans. Selected individual indicators that reflect Waikato Regional Council’s functions and roles are included as performance measures in Council’s Long Term Plan 2021-2031, Annual Reports, and other council documents. Such multiple use of the WPI data ensures cost effective and consistent use of information.

In addition to the 32 high level measures, the WPI programme compiles secondary indicators and data by territorial authority (where available) to support more detailed and local community analysis about how and why levels of wellbeing are changing over time. Data is also available for some indicators on their distributional aspects, such as information by age, gender, ethnicity, income, or locality. The biennial Waikato Quality of Life survey²⁴ and regular reports on socio-economic deprivation²⁵ provide information about (respectively) people’s views and perceptions, and socio-economic status at the district council and neighbourhood level. A priority for the WPI project is to continue working with Treasury, Statistics NZ, LGNZ (Local Government New Zealand) and Taituarā (Local Government Professional Aotearoa) to align national, regional, and local data and indicators, and to fill any data gaps.

The focus for the WPI work programme 2023/24 includes:

1. Communication and engagement: ongoing sharing of data and services with other agencies and the community, particularly territorial authorities, iwi, central government, community trusts/foundations, and other regions.
2. Continue data management, including store, maintain, and update data, and automate regular updates and reporting (next annual update of the WPI planned in June 2024).
3. Undertake the 2024 Quality of Life survey (jointly with Hamilton City Council and the Quality of Life project team)²⁶ and reporting on socio-economic deprivation in the Waikato (based on 2023 Census data).²⁷
4. Explore opportunities, such as:
 - a. Refresh Waikato community outcomes: The 32 WPI indicators were predominantly selected from a wider set of 75 indicators agreed as the success measures for identified community outcomes (Choosing Futures Waikato 2006/07– “*what matters most to our people and communities*”).²⁸ This was the last comprehensive and collaborative process undertaken to identify community outcomes in the Waikato region and its districts. The proposed RMA reform legislation (Spatial Planning Bill)²⁹ requires each territorial authority (district/city councils) to identify community outcomes, and regional councils to identify environmental outcomes. This may provide an opportunity to refresh the current outcomes people in the Waikato seek for their communities.

²³ <https://futureproof.org.nz/>

²⁴ www.waikatoregion.govt.nz/assets/WRC/WRC-2019/TR202249.pdf

²⁵ www.waikatoregion.govt.nz/assets/WRC/WRC-2019/TR202114.pdf

²⁶ www.qualityoflifeproject.govt.nz/about-the-survey/

²⁷ www.waikatoregion.govt.nz/services/publications/tr202114/

²⁸ www.waikatoregion.govt.nz/assets/PageFiles/36757/CFW_Where_to_from_here_3_Jul_2007.pdf

²⁹ <https://environment.govt.nz/what-government-is-doing/cabinet-papers-and-regulatory-impact-statements/natural-and-built-environment-bill-and-spatial-planning-bill-approval-for-introduction/>

- b. Develop sub-regional local wellbeing information summaries: For example, publishing district/community wellbeing profiles, including maps of deprivation. This would require working jointly with territorial authorities, iwi, business, central government (Te Whatu Ora, Kainga Ora) and other agencies. Regional data is highly aggregated which can mask local trends. Data/information at the community level is critical, for example the mix of drivers for deprivation differ considerably across the region and even within territorial authorities. The report *Socioeconomic Deprivation in the Waikato Region – using the Index of Multiple Deprivation* (Chiang, Colbert and Exeter, 2021) shows that some areas within the Waikato region rank among the most deprived areas in New Zealand.
- c. From data to insights: There is value in undertaking additional analysis of the high level WPI data to provide local insights and how specific groups of people are doing compared to the average. A continuing and increasing focus for the WPI programme is therefore to share data, align indicators with other agencies, and in particular turning data into insights by engaging with strategic national, regional, and local partners to create shared knowledge and insights. This includes exploring connections between the 32 WPI indicators and topics, for example between air pollution and human health, or estimating the value of the environment to our economy. Such integrated and in-depth analysis of the data can be used for storytelling and to produce think pieces on regional and local issues.
- d. Strengthen planning and decision-making using a wellbeing lens: The purpose of local government is *"to promote the social, economic, environmental, and cultural well-being of communities in the present and for the future"*. However, the Local Government Act 2002 provides little guidance for councils on how to promote the four wellbeings. Balancing the four wellbeings, for example between the economy and the environment, is increasingly challenged and substituted by an approach that recognises that the economy and the health and wellbeing of people and communities are dependent on the environment. There are environmental limits and planetary boundaries that we need to live within, e.g., no more than 1.5°C of atmospheric warming.³⁰ This critical and fundamental importance of the environment is also consistent with a Te Ao Māori view of the world.³¹

³⁰ <https://environment.govt.nz/publications/a-safe-operating-space-for-new-zealandaotearoa-translating-the-planetary-boundaries-framework/>

³¹ www.tpk.govt.nz/en/o-matou-mohiotanga/maori-enterprise/an-indigenous-approach-to-the-living-standards-fra

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Appendix 1 The Waikato Progress Indicators

Key questions	Topic	Indicator	Definition (current as of May 2023)
Economy			
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 December)
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
How wealthy are we?	Wealth and income	Income	Real median weekly household income
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
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 primary allocable flow – Waikato River mouth during summer months
Society			
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
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 safe are we?	Community safety	Crime	Rates of recorded victimisations per 10,000 population (year to December)
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
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

Key questions	Topic	Indicator	Definition (current as of May 2023)
Are we satisfied with our housing? How accessible, adequate and affordable is our housing?	Housing	Housing affordability	Ratio of housing costs to household disposable income
Wealth and income	Wealth and income	Income inequality	Gini coefficient – a measure of the concentration of income within the region
How healthy are we?	Health	Life expectancy	Life expectancy at birth (from Life Tables estimated using Census data)
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
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
Do we feel safe?	Community safety	Perceptions of safety	Percentage of adults who feel safe walking alone in their neighbourhood after dark
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
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 safe are we?	Community safety	Road safety	Estimated annual social costs of road injury crashes per capita
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
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
Environment			
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)

Key questions	Topic	Indicator	Definition (current as of May 2023)
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 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
Is the climate changing?	Air and climate	Greenhouse gases	Regional annual total greenhouse gas emissions – from the Waikato Region Comprehensive Greenhouse Gas Inventory
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 much of our waste do we recycle?	Waste	Recycling	Self-reported prevalence of household recycling
How much land is sub-divided/paved every year? How much of this is fertile soil?	Land and water	Urban and rural residential expansion onto highly productive land	Area (hectares) of highly productive land (Land Use Capability classes 1-3) in urban and rural residential use in the Waikato Region
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
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

Appendix 2 WPI time series data 2001 to 2022

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 – more offences are a negative trend).

Indicator	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Building activity	\$2,251	\$2,322	\$3,164	\$3,516	\$4,359	\$3,844	\$3,963	\$3,252	\$2,548	\$2,606
Employment	61.4%	64.1%	64.8%	65.4%	64.1%	67.1%	66.7%	66.7%	65.0%	62.6%
Income	\$1,310	\$1,366	\$1,396	\$1,343	\$1,476	\$1,529	\$1,574	\$1,610	\$1,576	\$1,491
Regional GDP	\$45,979	\$48,821	\$46,712	\$48,551	\$49,025	\$51,168	\$53,898	\$53,691	\$54,868	\$52,705
Water use	67%	67%	67%	67%	67%	67%	67%	65%	64%	69%
Community engagement	62%	62%	62%	62%	62%	62%	60%	59%	57%	56%
Community pride	70%	70%	70%	70%	70%	70%	70%	70%	69%	69%
Crime	832.6	840.8	780.6	720.7	770.0	833.7	798.0	760.7	829.0	803.1
Cultural respect	51%	51%	51%	51%	51%	51%	50%	49%	49%	48%
Educational attainment	64.2%	64.2%	64.2%	64.2%	64.2%	64.2%	64.2%	64.2%	64.2%	66.4%
Housing affordability	20.5%	20.5%	20.5%	20.5%	20.5%	20.5%	20.5%	18.6%	20.5%	17.7%
Income inequality	0.351	0.351	0.351	0.351	0.351	0.351	0.351	0.401	0.315	0.355
Life expectancy	78.5	78.8	79.0	79.3	79.5	79.8	80.0	80.1	80.3	80.5
Life satisfaction	90%	90%	90%	90%	90%	90%	89%	89%	88%	88%
Perceived health	90%	90%	90%	90%	90%	90%	89%	89%	88%	88%
Perceptions of safety	60%	60%	60%	60%	60%	60%	61%	61%	62%	62%
Physical activity	61%	61%	61%	61%	61%	61%	60%	58%	57%	55%
Public transport	4.2	4.3	4.5	4.9	5.1	5.5	7.3	9.1	11.1	11.0
Road safety	6,104	6,104	6,104	6,104	7,296	6,564	7,531	6,591	5,979	5,630
Social connectedness	63%	63%	63%	63%	63%	63%	63%	63%	64%	64%
Te Reo Māori speakers	6.4%	6.3%	6.2%	6.0%	5.9%	5.8%	5.7%	5.7%	5.6%	5.5%
Voter turnout	37.6%	37.6%	37.6%	37.6%	37.6%	37.6%	37.6%	38.9%	40.2%	41.5%
Air quality	17	17	27	50	38	47	20	28	38	22
Coastal ecosystem health	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
Environmental attitudes	77%	77%	77%	77%	79%	81%	83%	86%	86%	87%
Greenhouse gases	15.2	15.2	15.2	15.2	15.2	15.2	15.2	16.9	15.7	14.7
Indigenous vegetation	27.1%	27.1%	27.1%	27.1%	27.1%	27.1%	27.1%	27.1%	27.1%	27.1%
Recycling	66.2%	66.2%	66.2%	66.2%	66.2%	66.2%	66.2%	66.2%	68.9%	71.5%
Residential expansion onto highly productive land	11,976	11,976	12,624	13,271	13,919	14,567	15,214	15,862	16,140	16,419
River water quality	29.0%	29.0%	29.0%	29.0%	29.0%	29.0%	29.0%	29.0%	29.0%	29.0%
Soil quality	87%	87%	87%	87%	86%	88%	86%	88%	85%	82%
Waste	222,000	222,000	222,000	222,000	222,000	222,000	222,815	223,629	224,444	225,258

Appendix 2 cont.

Indicator	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Building activity	\$2,064	\$2,359	\$2,558	\$2,864	\$3,471	\$3,809	\$4,015	\$4,354	\$4,872	\$4,764
Employment	64.7%	63.0%	63.1%	63.2%	64.6%	65.4%	67.7%	70.0%	68.1%	66.7%
Income	\$1,415	\$1,486	\$1,506	\$1,442	\$1,559	\$1,755	\$1,739	\$1,916	\$1,942	\$1,898
Regional GDP	\$53,084	\$55,761	\$54,195	\$56,190	\$55,729	\$55,629	\$56,456	\$58,850	\$61,060	\$61,498
Water use	72%	76%	87%	86%	86%	86%	85%	86%	85%	83%
Community engagement	54%	52%	51%	49%	48%	46%	41%	36%	37%	37%
Community pride	69%	69%	69%	68%	68%	68%	65%	62%	65%	67%
Crime	807.1	739.2	722.4	652.7	582.7	624.7	624.5	589.0	658.7	623.3
Cultural respect	47%	46%	45%	45%	44%	43%	42%	41%	44%	47%
Educational attainment	69.5%	72.0%	73.6%	76.1%	77.6%	79.6%	78.6%	79.1%	78.3%	79.1%
Housing affordability	18.3%	20.1%	17.2%	20.3%	18.9%	20.4%	19.9%	20.2%	19.6%	20.5%
Income inequality	0.393	0.412	0.342	0.375	0.444	0.413	0.417	0.395	0.410	0.382
Life expectancy	80.6	80.8	81.0	81.0	81.1	81.2	81.3	81.4	81.4	81.4
Life satisfaction	87%	86%	86%	85%	85%	84%	86%	87%	88%	88%
Perceived health	87%	86%	86%	85%	85%	84%	82%	79%	79%	79%
Perceptions of safety	63%	63%	64%	64%	65%	65%	65%	64%	63%	62%
Physical activity	54%	53%	51%	50%	48%	47%	44%	40%	38%	35%
Public transport	10.4	10.6	10.2	10.1	9.8	9.0	8.6	8.4	8.3	7.1
Road safety	5,279	4,937	4,162	4,440	5,232	5,121	5,340	5,528	5,236	4,539
Social connectedness	64%	64%	64%	65%	65%	65%	64%	62%	59%	56%
Te Reo Māori speakers	5.4%	5.4%	5.3%	5.4%	5.5%	5.7%	5.8%	5.9%	5.9%	5.9%
Voter turnout	40.9%	40.3%	39.7%	38.8%	37.8%	36.9%	38.7%	40.6%	42.4%	42.4%
Air quality	20	17	12	11	10	5	12	2	5	13
Coastal ecosystem health	0.40	0.40	0.38	0.38	0.38	0.41	0.40	0.39	0.36	0.40
Environmental attitudes	88%	88%	89%	89%	88%	88%	88%	87%	87%	86%
Greenhouse gases	14.9	16.2	15.2	15.1	14.8	14.5	14.7	15.0	16.0	15.9
Indigenous vegetation	27.1%	27.1%	27.1%	27.1%	27.1%	27.1%	27.1%	27.1%	27.1%	27.1%
Recycling	70.9%	70.3%	70.3%	70.3%	70.3%	70.3%	70.3%	70.3%	70.3%	70.3%
Residential expansion onto highly productive land	16,697	16,975	17,337	17,699	18,061	18,424	18,786	19,148	19,510	19,510
River water quality	29.0%	29.0%	29.0%	28.0%	27.9%	28.0%	28.0%	29.0%	29.0%	29.0%
Soil quality	85%	82%	80%	77%	78%	83%	85%	82%	88%	90%
Waste	226,073	226,887	227,499	228,111	228,723	224,732	220,741	250,122	279,504	308,885

Appendix 2 cont.

Indicator	2021	2022
Building activity	\$5,685	\$5,695
Employment	66.6%	67.1%
Income	\$1,944	\$1,935
Regional GDP	\$61,968	\$63,713
Water use	90%	90%
Community engagement	34%	31%
Community pride	66%	64%
Crime	679.7	826.8
Cultural respect	43%	39%
Educational attainment	77.2%	77.2%
Housing affordability	20.2%	18.4%
Income inequality	0.362	0.352
Life expectancy	81.4	81.4
Life satisfaction	87%	86%
Perceived health	80%	80%
Perceptions of safety	63%	63%
Physical activity	38%	41%
Public transport	6.4	4.7
Road safety	4,376	4,376
Social connectedness	57%	57%
Te Reo Māori speakers	5.9%	5.9%
Voter turnout	42.4%	42.4%
Air quality*	39	15
Coastal ecosystem health	0.39	0.39
Environmental attitudes	84%	83%
Greenhouse gases	16.2	16.2
Indigenous vegetation	27.1%	27.1%
Recycling	70.3%	70.3%
Residential expansion onto highly productive land	19,510	19,510
River water quality	29.0%	29.0%
Soil quality	92%	91%
Waste	308,885	308,885

Note * There is a time series break in the air quality indicator from around 2019/20 due to the roll-out of new optical based monitors which measure more exceedances than the older monitors.