

# Auckland Monitoring Framework



A draft monitoring framework for the  
Auckland governance reforms

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This report is based on material prepared for the Department of Internal Affairs by Martin, Jenkins & Associates Limited. MartinJenkins is a New Zealand-based consulting firm providing strategic management support to clients in the public, private and not-for-profit sectors.

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# 1. Monitoring framework

This section describes the monitoring framework by:

- Outlining the purpose of the monitoring framework
- Setting out an approach to developing the framework, including the principles and criteria to guide development
- Providing an overview of the monitoring framework
- Summarising existing data sources and highlights gaps and issues with current measurement
- Scoping a monitoring report and making suggestions for future monitoring

## Purpose and scope

- 1 Monitoring and evaluation will enable lessons to be learnt from the Auckland governance reforms and impacts and outcomes to be identified. The large scale, broad scope and complexity of the governance reforms, their uniqueness, the economic importance to Auckland and New Zealand as a whole and the speed of implementation, all highlight the importance of monitoring progress and evaluating impacts.
- 2 The overall framework for the evaluation of the Auckland governance reforms comprises a complementary package of evaluation and monitoring activities (Figure 1). The core components of this framework include:
  - baseline and ongoing monitoring information, based on an initial set of indicators to enable changes over time to be identified and analysed.
  - a short-term evaluation of the lessons learned from the establishment process<sup>1</sup> of the new Auckland Council.
  - an outcome evaluation activity to understand the impacts and outcomes of the reforms over the short, medium and longer-term.

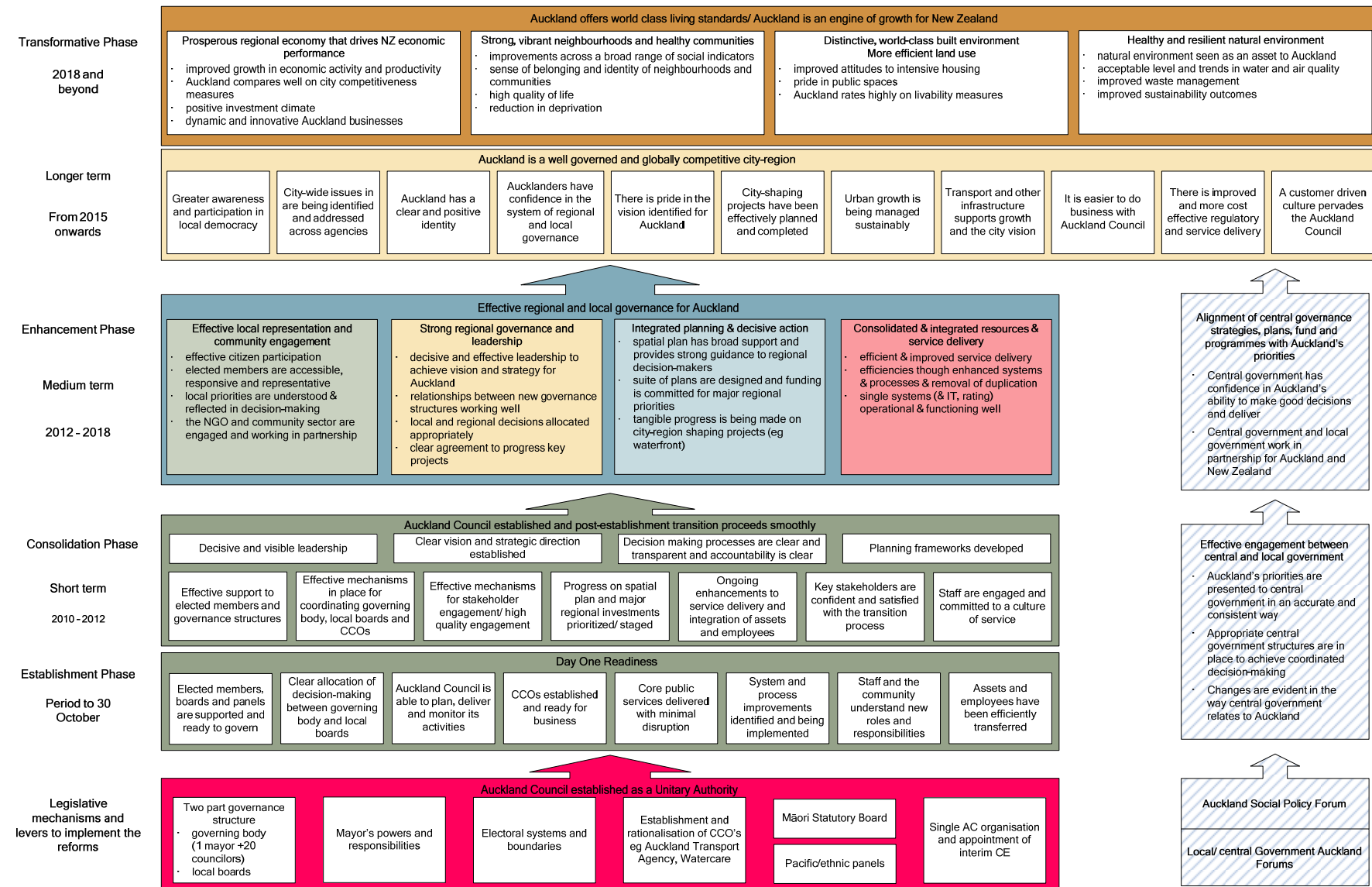
		Timina: 03/2009-02/2011	Timina: 2011 – 2017 +			
EVALUATION	Lessons learned from the establishment	Outcome evaluation activities				
		Focus 1	Focus 2	Focus 3	Focus 4	
MONITORING	Baseline monitoring	Ongoing monitoring				

Figure 1: Overall package of monitoring and evaluation activities

<sup>1</sup> The short timeframe of the establishment evaluation is driven by the need for an early report back to Ministers on establishment issues. Actual establishment of the new Auckland Council will continue beyond this time.

- 3 The focus of this report is on aspects related to monitoring activities. A separate report discusses the draft outcomes evaluation framework.
- 4 Monitoring is the systematic collection, analysis and reporting of trends and changes in phenomenon over time. Monitoring frameworks represent a set of indicators that, when measured and reported, allow a story to be told about the impacts and outcomes of a particular policy, programme or intervention. When existing indicators can be used, monitoring can be a low-cost way to tell such a story.
- 5 The purpose of developing a monitoring framework for the Auckland governance reforms is to enable regular reporting of trends and changes in longer-term outcomes that the reforms are intended to contribute to. Monitoring outcome indicators is one way of measuring progress in Auckland, and of benchmarking Auckland against other city-regions domestically and internationally. Monitoring is intended to complement qualitative evaluation of the impacts of the reforms.
- 6 To date, the monitoring framework has two specific purposes:
  - To underpin the production of a baseline study. A baseline aims to capture the recent past and 'current state' prior to the initiation of the reforms. It provides a reference point for future monitoring and evaluation activity, and
  - To provide a framework for ongoing monitoring of key outcome indicators to allow progress to be assessed over time. While such a framework will evolve and change over time, however consistency of measurement is important if trends and changes are to be observed.
- 7 The scope of the monitoring framework is largely restricted to the upper two tiers of the outcomes framework (Figure 2). In part, this is because the nature of the outcomes at these levels makes them more easily subject to measurement. These are also levels of the framework where existing measures are likely to be more readily available.

Figure 2: Overarching outcomes framework for the Auckland governance reforms



# Approach

## General approach

- 8 The approach to the monitoring framework was developed by drawing on:
- Good practice guidance, such as Statistics New Zealand’s “Good Practice Guidelines for the Development and Reporting of Indicators (July 2009)”
  - Examples of methodologies used for other regional local government monitoring programmes, such as Waikato Region’s Choosing Futures project and the Canterbury Region’s monitoring of community outcomes indicators
  - Experience of developing monitoring frameworks for a wide range of government strategies, policies and programmes.
- 9 The process followed is depicted in Figure 3. It involved the following steps:
- Taking both a top-down and bottom-up approach to identifying the scope of the monitoring framework:
    - The top-down approach involved considering the outcomes framework developed for the Auckland governance reforms and thinking about the range of outcome areas that could be explored through monitoring.
    - The bottom-up approach involved a brief stock-take of existing monitoring of Auckland-related indicators by central and local government
  - Based on the top-down/bottom-up process, key monitoring domains and sub-domains were defined. These domains represent general areas where it is important for monitoring to occur.
  - Identification of a range of possible indicators within each domain, drawing largely on available data sources but also suggesting potential indicators in areas where there appear to be data gaps, and
  - Applying a set of criteria (described below) to reduce the total number of indicators to a manageable number. These were tested and refined before revising and finalising the proposed framework.

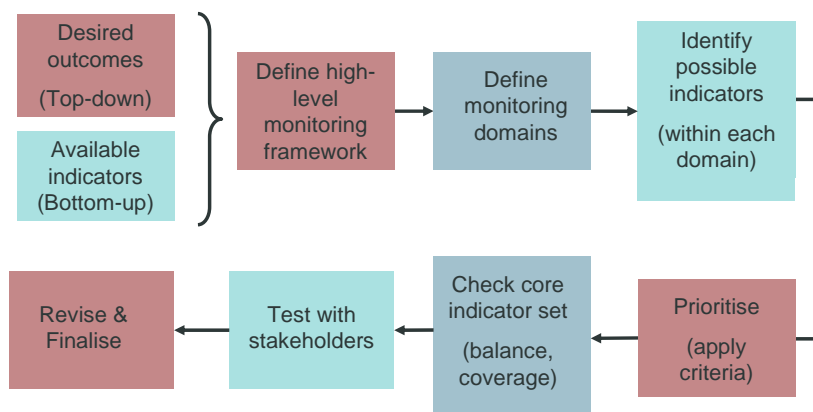


Figure 3: Methodology for indicator development

## Principles guiding the framework

- 10 The following principles guided the development of the framework:
- The framework should align closely with the overarching evaluation and monitoring framework
  - The set of indicators should be comprehensive but concise – too many indicators can prevent a clear picture from emerging
  - The framework should leverage off the large amount of monitoring data that already exists for Auckland
  - The framework should include measures that the Auckland governance reforms can reasonably be expected to influence, and
  - The framework should not duplicate or replace the measurement frameworks that the Auckland Council will need to fulfil its statutory reporting requirements (although there may be some overlaps).

## Criteria for indicator selection

- 11 The approach was to develop a 'long-list' of indicators for inclusion in the framework. These were refined down to a more concise and manageable set by applying the following criteria:
- Availability
    - Is the measure currently available?
    - Will it continue to be available in the same or similar form?
  - Relevance
    - Is the indicator easily understood and simple to interpret?
    - Will the indicator resonate with stakeholders and the general public?
  - Representativeness
    - Does the measure represent the monitoring dimension it is intended to indicate?
    - Does the indicator reflect or correlate with broader trends?
  - Measurability
    - Can the indicator be reliably quantified?
    - Does the measure have methodological validity?
  - Cost and frequency
    - Is the indicator cost effective to acquire?
    - Is the frequency of measurement suitable for monitoring purposes?
- 12 Having applied these criteria to select individual indicators, a number of questions were then asked across the set of indicators. These were:





- 15 Domains identified for possible inclusion in a monitoring framework include:
- Prosperous regional economy that drives New Zealand economic performance
  - Healthy environments
  - Strong, vibrant communities
  - Effective transport and other infrastructure
  - World class public services
  - Value for money
  - Confidence in Auckland’s system of regional and local governance
- 16 Over 100 indicators were initially identified. These were narrowed to around 60 by applying indicator selection criteria. Applying the selection criteria was an exercise in subjective judgement as there is no optimal set of indicators. However a comprehensive but concise set will eventually be required. This is because reports dealing with a large number of indicators tend to be dense, dry and paint a confused rather than clear picture of the phenomena being monitored. This approach is consistent with Statistics New Zealand guidance which recommends “less is more” when reporting on indicators.<sup>2</sup>
- 17 Given the potential scale of impact of the reforms, there is a need to cover a larger number of indicators than might ordinarily be desirable. More than 50-60 indicators would be unwieldy. Choosing the “final” suite of indicators will be guided by the need to:
- Identify the number and type of indicators needed to adequately measure progress towards the intended outcomes
  - Ensure monitoring will as efficient as possible (too many indicators would be costly and result in the collection of redundant information, too few would leave questions unanswered); and
  - Recognise limitations in the availability of information, how frequently it is produced, its reliability and validity (in relation to the intended outcomes).
- 18 Some of the indicators that could form the core of a monitoring framework are listed in Appendix 1. In some cases, the indicators suggested are not those that would be chosen they could be designed from scratch. Rather, they represent the best available given the criteria applied.
- 19 In a small number of cases, indicators have been suggested that do not currently exist. For the most part these are *perception-type* measures. They could be incorporated into future data collection mechanisms (e.g., citizen perceptions surveys).

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<sup>2</sup> Statistics New Zealand (2009) Good Practice Guidelines for the Development and Reporting of Indicators, p. 4.

- 20 An initial **draft** suite of high-level indicators that represent the various domains and sub-domains are given in the tables below. These have been drawn from the material in Appendix 1. Note that not all sub-domains have yet had a suitable indicator identified. This is work in progress.

<b>Domain</b>	<b>Prosperous regional economy</b>		
<b>Sub-domain</b>	<b>Incomes and productivity</b>		
GDP per capita ( <i>Real GDP/capita</i> )	\$33,600 in Auckland compared to \$30,800 for New Zealand (2009)	Declining nationally for last 2 years (recession). 5% decline for Auckland greater than 4% drop for rest of NZ.	
Rate of growth in economic activity			
<b>Sub-domain</b>	<b>Employment and skills</b>		
Rate of unemployment ( <i>HLFS</i> )	7.3% for Auckland compared to 6.4% for New Zealand (March 2010).	National unemployment has been increasing over the last few years due to the recession. Auckland has remained above national average for this period (was previously below)	
% working age population with tertiary education (Bachelors degree or above) ( <i>Statistics NZ</i> )	18% in Auckland compared to 14% nationally. Wellington is the highest with 21% (2006)	No trend data collected to date	
% school leavers with low attainment			
% year 1 student that attended early childhood education			
<b>Sub-domain</b>	<b>Innovation</b>		
% total workforce employed in knowledge industries ( <i>DoL &amp; Statistics NZ</i> )	35.6% of national total (2009)	Auckland's % of national total has been rising steadily from 2001. A slight drop in 2009 is due to the recession.	
<b>Sub-domain</b>	<b>Cost of living</b>		
Mercer Worldwide cost of living survey ( <i>Mercer</i> )	Rank 140 <sup>th</sup> , lower ranks more unaffordable (2009)	Improving (better) cost of living compared to other cities	

<b>Domain</b>	<b>Strong vibrant communities</b>		
<b>Sub-domain</b>	<b>Participation in democracy</b>		
% women elected members in local government ( <i>DIA – 2007</i> )	46% for Auckland Regional Council above regional council average of 27%. 29-60% for	There are a generally higher % of women councillors in Auckland	

<i>elections)</i>	cities compared to city average of 37%. 25-38% for districts compared to district average of 28%.	councils.
Voter turnout at local elections (DIA – 2007 elections)	38% for Auckland Regional Council below regional council average of 43%. 35-40% for cities below city average of 41%. 35-45% for districts below district average of 49%.	Lower than national turnout. Declining turnout (note this is also a national trend)
Resident confidence in council decision-making	Of five Auckland councils only Waitakere is above national average of 46% (2008)	No trend data available
<b>Sub-domain</b>	<b>Attitudes to city and region</b>	
Residents perception of pride in look and feel of city as good or very good ( <i>BigCities</i> )	Of five Auckland councils only North Shore is above national average of 64% (2008)	Overall decrease
<b>Sub-domain</b>	<b>Community strength and spirit</b>	
Social deprivation composite indicator		
Residents perception of community in local neighbourhood as good or very good ( <i>BigCities</i> )	Of five Auckland councils only Rodney is above national average of 58% (2008)	General decrease
Resident's perception that diversity makes a better or much better place to live ( <i>BigCities</i> )	Four of the five Auckland councils is above national average of 52% (2008)	General increase.
<b>Sub-domain</b>	<b>Safety and crime</b>	
Perception of safety		
<b>Sub-domain</b>	<b>Health</b>	
Residents rating of own health of good or very good ( <i>BigCities</i> )	Of five Auckland councils only Rodney is above national average of 61% (2008)	Variable with most increasing (except Waitakere).
<b>Sub-domain</b>	<b>Quality of life</b>	
Residents perception of quality of life as good or very good ( <i>BigCities</i> )	Most Auckland councils are at or below the national average of 92% (2008)	General increase

<b>Domain</b>	<b>Healthy environments</b>		
<b>Sub-domain</b>	<b>Air</b>		
Annual average of PM <sub>10</sub> ( <i>MfE</i> )	Auckland average 17 µg/m <sup>3</sup> (2008) compared to national standard threshold of 20 µg/m <sup>3</sup>	Steady trend below air quality threshold	
<b>Sub-domain</b>	<b>Water</b>		
Average water consumption per capita	Auckland councils between 175-200 l/capita (2006)	Stable. This is also less than most other main centres	
Proportion of residents receiving water from community supplies compliant with DWS 2000 or 2005 ( <i>MoH</i> )	<i>E.coli</i> = 90% of population Cryptosporidium = 87% of population. This compliance rate is higher than most other regions.	Stable for <i>E.coli</i> and cryptosporidium. Results likely to reflect urbanisation and centralised infrastructure	
Average compliance with coastal swimming water ( <i>ARC</i> )	17% of sites in Auckland with less than 90% compliance. Not as good as most other regions (2007/09).	No trend available	
<b>Sub-domain</b>	<b>Waste</b>		
Volume per resident of solid waste to landfills ( <i>BigCities</i> )	Four Auckland councils have between 125 and 210 kg. Median for 12 cities is 125 kg in 2005/06	Slight increase over time	
Volume per resident of recycled materials ( <i>BigCities</i> )	Four Auckland councils have between 59 and 114 kg. Median for 12 cities is 70 kg in 2005/06	No trend available	
<b>Sub-domain</b>	<b>Energy</b>		
<b>Sub-domain</b>	<b>Natural environment and ecosystems</b>		
<b>Sub-domain</b>	<b>Quality built environment</b>		
Apartments & multi-dwelling units as a % of new dwelling units	8.2% of total residential permits (2010).	Decreasing numbers reflecting market conditions and supply.	
<b>Sub-domain</b>	<b>Land use and availability</b>		
Years to exhaustion of urban area residential supply			
Years to exhaustion of vacant urban area residential supply			

<b>Domain</b>	<b>Effective transport and infrastructure</b>	
<b>Sub-domain</b>	<b>Transport patterns</b>	
Mode of travel to work		
Average distance travelled to work		
<b>Sub-domain</b>	<b>Land transport</b>	
Average delay per km travelled		
<b>Sub-domain</b>	<b>Public transport</b>	
Total public transport boardings (MoT)	Auckland had 57.7 million or 47.5% of New Zealand total (2008/09)	Gradually increasing percentage of national total since 2005/06
<b>Sub-domain</b>	<b>Airports and ports</b>	
<b>Sub-domain</b>	<b>Essential services</b>	
<b>Sub-domain</b>	<b>Broadband</b>	
Proportion of households with access to broadband		
<b>Sub-domain</b>	<b>Electricity</b>	

## Data sources

21 A wide range of existing data sources is available for most indicators. Some are ongoing while others will terminate as a result of the reforms, or changes to collection mechanisms. Data sources considered in the development of this framework include:

### ***Auckland local government (for example)***

- Auckland regional council
  - State of the region reports
  - Environmental awareness surveys
  - Capacity for growth studies
  - MonitorAuckland
- All (or most) councils
  - Annual reports
  - Community outcomes monitoring
  - Stakeholder/customer/citizen surveys

- Quality of Life Survey

**Central government** (for example)

- Economic Development Indicators reports
- Social reports
- Various Statistics New Zealand collections, e.g.,
  - Five-yearly population census
  - Local Authority census

**International** (for example)

- OECD regional and metropolitan database
- Mercer Quality of Life survey
- Global Urban Competitiveness Report
- State of Australian Cities 2010

22 A list of potential data sources is given in Appendix 2.

## Data issues and gaps

23 Several issues and data gaps were identified during the development of the monitoring framework. These are outlined below.

### International comparisons

24 Several other governments from Europe, United Kingdom, Canada, Australia and South Africa have compiled 'State of the Cities' type reports using domestic data. However, these are often ad hoc which makes it difficult to establish a time series comparison. In addition the results between cities are also not always readily comparable because the data may be captured using different classifications, definitions and methodologies.<sup>3</sup>

25 Some internationally comparable data on global cities is collected, for example by the OECD as part of its metropolitan database. Initiatives to produce city-rankings type composite measures, such as the Mercer Quality of Life survey and the Global Urban Competitiveness Report, also exist. Comparable international measures are generally unavailable across most domains of the monitoring framework.

### Lack of comparability of existing sub-regional data

26 While existing outcomes measurement by city and district councils in Auckland covers common themes, there is a little consistency regarding specific measures. This is

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<sup>3</sup> State of Australian Cities 2010, Produced by the Major Cities Unit of Infrastructure Australia, Australian Government.

particularly the case for measures of council service delivery, which vary from council to council.

- 27 Region-wide data collected by ARC, central government data available on a region-wide basis, and joint data collections such as the Quality of Life initiative, produce some consistent and reliable data at a region-wide level. These are the preferred data sources where relevant measures are available. For core council service performance data (e.g., satisfaction with libraries and community facilities) city and district council data must be relied upon.

## **Continuity of data collection**

- 28 The establishment of the new Auckland Council poses several issues and risks for continuity in data collection. These include:
- The new Auckland Council will need to develop its own performance and outcomes measures, and these may differ significantly from previous measures. To the extent that the new measures differ, the utility of baseline monitoring will be diminished.
  - Existing data collection mechanisms may be disestablished and not replaced. To the extent this occurs, this will also hinder continuity of monitoring.
  - The new geographic boundaries of the Auckland Council may make it difficult to achieve consistent time-series for some measures. However issues related by boundary changes (mainly along the southern boundary) for region-wide measures are expected to be small for most measures.

## **Specific data gaps**

- 29 There are several monitoring domains for which suitable indicators do not appear to be available or regularly collected (e.g., rates of capital investment in the Auckland region). Specific gaps are highlighted in the table of indicators in Appendix 1.
- 30 The most significant gap identified is in the area of public attitudes to the governance reforms. While there has been some one-off research and polling of Aucklanders' attitudes to the reforms<sup>4</sup>, there do not appear to be any plans for ongoing measurement of Aucklanders' perceptions of the impacts of the reforms.

## **Monitoring outputs**

### **Baseline monitoring report**

- 31 The purpose of a baseline monitoring report is to capture the recent past and 'current state' prior to the initiation of the reforms, thereby providing a reference point for future monitoring activity. The core set of indicators highlighted in Appendix 1 could form the basis for a baseline study. Where possible and within resource constraints, it is

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<sup>4</sup> For example, the Regional Governance Research conducted by Ben Parsons & Associates for the Auckland City Council, and the periodic Herald-Digipoll surveys reported in the New Zealand Herald.

desirable to obtain historical time series for the various measure as this will assist in trend identification in the future.

- 32 The Department of Internal Affairs has prepared a draft baseline indicator report based primarily on these measures. This document is in the process of ongoing review and development.
- 33 Since there is little consistent data collection across the seven existing city and district councils, it will be difficult to establish a consistent baseline for some areas of city and district council performance. An exception is the financial information contained in the Local Authority Census that is collected on a consistent basis across all councils.

## Suggestions for future monitoring

- 34 There is a high degree of interest amongst stakeholders in monitoring the impacts and outcomes of the Auckland Governance Reforms. A number of individuals and groups spoken to in the preparation of this report called for the need for a “report card” or “monitoring dashboard” for the new Auckland Council. While it is not the role of this project to suggest performance measures for the Auckland Council, there would be value in a periodic monitoring report (based around a core set of indicators) to tell a high-level story about how Auckland is progressing.
- 35 The monitoring indicators highlighted in Appendix 1, suitably adapted to take account of new measures from the Auckland Council, could provide a basis for such a report. It is anticipated that monitoring data may also inform the development of specific evaluation questions.
- 36 A distinguishing feature of good practice monitoring reports<sup>5</sup> is that they:
- Weave together a cohesive story about broad changes in the economy, society and the environment
  - Provide insightful analysis and interpretation in addition to describing the data
  - Are broad in coverage and yet relatively concise in terms of the number of indicators they report on
  - Evolve over time and choose to focus on different themes or issues each time so as to remain relevant and topical, and
  - Achieve broad readership and get media coverage.
- 37 If such a report was to be produced on the impacts and outcomes of the Auckland Governance Reforms, a key question is how frequently it should be published. Because visible change in the range of outcomes identified will take time, a frequency of every 2-3 years would be appropriate. This aligns with the different timescales in the outcomes framework. It is also broadly consistent with the requirements on local

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<sup>5</sup> An example of this approach is the Economic Development Indicators report jointly produced by the Ministry of Economic Development and the Treasury. For a novel online approach, see the Auckland Regional Council’s MonitorAuckland website (<http://monitorauckland.arc.govt.nz>)



authorities to report on community outcomes, and on the time interval for similar national indicators reports (e.g., the Economic Development Indicators report and the Social Report).

- 38 The value of any such report would be judged by whether stakeholders find it useful and whether it generates insight. Achieving this will be challenging and will require a high level of capability and resource. A lower key approach would be to report indicators online, and maintain them over time, without attempting to pull together an omnibus or summary report.

## **Implementation issues**

- 39 A key issue for any future monitoring is the role the Auckland Council will play in the collection of data. There are many areas of the monitoring framework where there is a strong overlap with what the Council might reasonably be expected to monitor itself. In addition, many of the data sources will be controlled by the Council. It will therefore be necessary to progress any future monitoring work or development of reports in close collaboration with the Auckland Council. Other agencies would also need to be involved as appropriate. This is an area for future development.

## Appendix 1: Draft suite of monitoring indicators

Domain	Sub-Domain	Indicator	Measure
Prosperous regional economy that drives New Zealand economic performance	Incomes and productivity	Income per capita	USD GDP per capita in PPPs for Auckland c/f other global metropolitan regions
		Economic activity	Rate of growth in regional economic activity
		Labour productivity	Output per worker in USD
	Employment and skills	Unemployment rate	Rate of unemployment
		Educational attainment	Share of population of 15 years and more with tertiary education
			Percentage of school leavers with low attainment
		Educational participation	Age-standardised rates per 1,000 students for stand-downs, suspensions and exclusions
			Percentage of students truant
	Percentage of year one students who had attended an early childhood education centre		
	Innovation	Patents	Patent applications per capita
		Science & technology	Human resources in science and technology (by virtue of qualification and occupation) as a percentage of total workforce employed in knowledge-intensive industries
	Investment	Capital formation	No suitable measure found. Gross Fixed Capital Formation not available regionally.
	Competitiveness	Composite city competitiveness indicator	No suitable measure identified
	Cost of living	Global cost of living comparison	Mercer Worldwide Cost of Living survey 2009 City ranking
		Domestic cost of living comparison	Consumers price index all groups, change from previous year, by CPI region
	Enterprise	Proportion of businesses exporting	No suitable measure found. Proportion of businesses that export not available regionally.
Firm survival rates		Percentage of enterprise births in each reference year that survive into future reference years	
Average real profit per employee		Deflated average real profit per RME for enterprises with Auckland region geographical unit	
Strong, vibrant neighbourhoods and healthy communities	Participation in democracy	Representation	Women candidates and elected representatives in local government Maori candidates and elected representatives in local government Ethnic minority candidates and elected representatives in local government
		Voter turnout	Voter turnout at local government elections
		Council decision-making	Residents' understanding of how council decisions are made
			Residents' confidence in council decision-making
			Residents' rating of public influence on council decision-making
	Attitudes to city-region	Pride in city-region	Residents' rating of sense of pride in the way their city looks and feels
		Auckland as a place to live	Proportion of residents who rate Auckland region as a great place to live
		Satisfaction with neighbourhood	Percentage of residents who are satisfied with the look and feel of their neighbourhood
	Community strength and spirit	Deprivation	Social deprivation index composite indicator
		Sense of belonging and identity	Proportion of population living in crowded housing Residents' sense of community in local neighbourhood
		Cultural diversity	Acceptance of cultural diversity
	Safety and crime	Safety	Perceptions of safety
		Crime	Rate of reported crimes per 10,000 people
	Health	Low birth weight babies	Rate of low birth weight babies per 1,000 live births
		Infant mortality	Rate of infant mortality per 1,000 live births
		Access to GPs	Percentage of residents who stated that there had been a time in the previous 12 months when they had not seen a GP
		Self-reported health status	Residents' rating of own health
		Mental health and wellbeing	Age-standardised suicide death rates per 100,000 population
	Quality of life	Teenage parents	Number and rate of live births per 1,000 to females aged 13 to 17 years
		Quality of living/life	Quality of living composite indicator Residents' perceptions of overall quality of life

Domain	Sub-Domain	Indicator	Measure
Healthy built and natural environment	Land capacity	Residential land supply in urban areas	Urban Area Residential Years to Capacity Exhausted
		Business land supply in urban areas	Vacant Business Land Years to Capacity Exhausted
		Residential land supply in rural areas	Rural area residential capacity
	Land footprint	Urban land	Size of the urban area (hectares)
	Urban intensification	Rate of urban intensification	Apartments & multi-unit dwellings as a percentage of all new dwelling units
		Attitudes to intensive housing	Percentage of residents who consider intensive housing a suitable housing choice
	Quality of built environment	Look and feel of city-region	Residents' rating of sense of pride in the way their city looks and feels
		Graffiti as a problem	Perception that graffiti is a problem in their local area
	Air	Air quality	Annual averages of PM10 particulates in air
			Air pollution as a problem
	Water	Water Consumption	Average water consumption per capita
		Drinking water quality	Average MCI score (Macro invertebrate Community Index) for drinking water
		Rivers & lakes water quality	Overall Water Quality Index (Rivers & lakes)
		Water pollution	Water pollution as a problem
	Waste	Volume of waste	Solid waste per capita
		Recycling	Volume of solid waste to landfills Recycling per capita (kg/person)
	Energy	Energy demand	Regional energy demand per capita
	Costal management	Marine water quality	Bathing beach water quality for contact recreation Marine water quality
	Freshwater ecosystems	River ecological quality	River ecological quality (macro invertebrates)
			River ecological quality (native fish)
Land management	Impervious surfaces	Extent of impervious surfaces	
	Soil loss	Soil loss to urbanisation	
	Soil quality	Soil quality (by land use)	
Place to live	Auckland as a place to live	Proportion of residents who rate Auckland region as a great place to live	
	Satisfaction with neighbourhood	Percentage of residents who are satisfied with the look and feel of their neighbourhood	
Quality of living/life	Quality of living composite indicator	Quality of living composite indicator	
	Perceived quality of life	Residents' perceptions of overall quality of life	
World class public services	Planning & regulatory services	Building consent processing	Percentage of building consents processed within statutory period
		Resource consent processing	Percentage of resource consents processed within statutory period
	Community, arts and recreation services	Arts	Percentage of people who believe there are many opportunities for active participation and involvement in the arts
		Beaches	Percentage of satisfaction with Auckland's beaches
		Community facilities	Percentage of people satisfied with Council facilities (community halls and community centres)
		Events	Percentage of residents' satisfaction with city wide events
		Libraries	Percentage of customers satisfied with library services
		Parks and open spaces	Percentage of public satisfied with council run parks and reserves
	Infrastructure services & asset management	Recreational facilities	Percentage of customers who express satisfaction with recreational facilities
		Public transport	Customer satisfaction with public transport
		Road quality - urban	Percentage of city roads that are grade 3 or higher
		Road quality - rural	Percentage of sealed network with roughness exceeding 150 NAASAF
	Economic development	Stormwater	Percentage of stormwater service requests attended in 3 days
		Wastewater	Public satisfaction with disposal and treatment of wastewater
	Support for democracy	Economic development agency	Percentage of residents satisfied with the Auckland region EDA
	Information on council activities	Support for elected representatives	Percentage of elected representatives that feel they have appropriate support
Satisfaction with availability of council information		Percentage of people satisfied with the amount of Council information available to them	

Domain	Sub-Domain	Indicator	Measure
Transport and other infrastructure that is fit for purpose	Electricity	Security of supply	Consumer interruption indicators (SAIDI, SAIFI, CAIDI)
	Transport patterns	Model of travel to work	Mode of travel to work
		Average distance travelled to work	Average distance travelled to work
	Road transport	Congestion	Average delay per kilometre travelled
		Road safety	Rate of serious and fatal road injuries per 10,000 population
	Public transport	Public transport usage	Residents' frequency of use of public transport in previous 12 months
		Interruptions to public transport	Total public transport patronage (PT boardings) by mode of travel Number of planned and unplanned interruptions
	Airports	Air passenger volumes	Passenger volumes (domestic and international)
Broadband	Broadband access	Proportion of households with access to broadband	
Confidence in Auckland's System of regional and local governance	Attitudes to Auckland Governance Reforms	Perceived benefit of reforms for the region	Proportion of residents who believe the Auckland Governance Reforms have benefited the region a
		Perceived benefit of reforms for their local comm	Proportion of residents who believe the Auckland Governance Reforms have benefited their local co
		Support for the spatial plan	Proportion of residents who support the spatial plan and the strategic direction of the Auckland Cou
		Confidence in the system of regional and local go	Proportion of residents who have confidence in Auckland's system of regional and local governance
		Attitudes to number of local boards	Proportion of residents who believe the number of local boards is too many, to few, or about right
Value for Money	Rates & Council Debt	Rates	Total general and targeted rates received per capita
		Debt levels	Total liabilities outstanding at year end
	Staffing levels	Staffing levels	Total number of FTEs employed
	Financial & development contributions	Financial and development contributions per cap	Total financial and development contributions levied
	Perceived value for money	Perceived value for money	Proportion of residents who believe they receive good value for money from their rates

## Appendix 2: Data sources

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