

Auckland Regional Growth Strategy Monitoring Programme

Monitoring the Effects of Growth- Interim Report

December 2006



TABLE OF CONTENTS

Executive Summary	1
Introduction	3
BACKGROUND	3
This Report	6
Section 1: Environmental Outcomes	7
AIR QUALITY.....	7
COASTAL ENVIRONMENT.....	9
HABITAT	12
RURAL AMENITY	14
SUSTAINABLE USE OF RESOURCES	16
WATER QUALITY.....	20
Section 2: Social Outcomes	22
CULTURAL HERITAGE.....	22
CULTURAL IDENTITY.....	24
HOUSING CHOICE AND AFFORDABILITY	27
URBAN AMENITY	29
OPEN SPACE.....	32
SAFE, HEALTHY COMMUNITIES.....	33
Section 3: Economic Outcomes	36
BUSINESS OPPORTUNITIES	36
EMPLOYMENT CHOICE	38
Section 4: Transport Outcomes	40
ACCESS AND TRANSPORT EFFICIENCY.....	40
Conclusion	43

EXECUTIVE SUMMARY

Auckland Regional Growth Strategy

The Auckland Regional Growth Forum was required to produce a Regional Growth Strategy (RGS) under the Local Government Act 1974. The final strategy was agreed in 1999. It sets a vision for how the Auckland region's growth can be sustainably managed to 2050, and includes the following vision:

"The diversity and well being of people and communities living in the Auckland region will continue to prosper in a sustainable manner which :

- *Promotes strong, supportive communities*
- *Ensures a high quality living environment*
- *Creates a region that is easy to get around*
- *Protects our coast and surrounding natural environment."*

The strategy also outlines 16 desired regional outcomes. These represent an agreed set of values, and were derived from strategic plans, surveys and consultation and developed through Growth Forum workshops.

Monitoring the Strategy

Chapter 4 of the RGS stated that when the strategy is reviewed, "the results of an effective monitoring programme will be used to assess whether or not the objectives of the strategy are being met and whether changes need to occur".

In 2000/01, a monitoring strategy was developed by ARC and Auckland local authorities. This identified an extensive set of indicators that could be monitored over time. An initial monitoring report was produced in June 2002 and was designed to serve as a baseline.

This document reports on the 16 Outcome Areas identified in the Regional Growth Strategy (RGS). It is one of three reports that are being produced as part of the Regional Growth Strategy Monitoring Programme.

While many of the indicators set in 2001 still stand as appropriate measures of the effects of growth, changes and shifts in regional trends, issues and priorities necessitate a review of the indicator set (and of data availability). Work on this review is ongoing, and is expected to be completed in time to incorporate 2006 census data.

Summary Table

Outcome area	Synopsis
Air Quality	Until recently, CO, particles (PM _{2.5} and PM ₁₀) and SO ₂ concentrations have been generally reducing. These are positive trends, which are likely to have been influenced by reduced levels of sulphur in diesel, and the increasing prevalence of modern, low emission vehicles.
Coastal Environment	The Auckland Region's coastline is relatively highly developed particularly in the East Coast (e.g. 88% of the North Shore coastline). There are 247 ha of Marine Farms licensed presently, and applications for a further 7135 ha.

Outcome area	Synopsis
Habitat	The remaining indigenous habitat is largely forest and scrub, with only remnants of coastal water and wetlands remaining. In the Waitakere Ranges, bird populations have responded well to reductions in possum numbers
Rural Amenity	There continues to be strong population growth in rural areas. The majority of lot sizes outside the MUL are small (52% of lots are 0.5ha or less). Continued population growth in rural areas will be assessed in the final report.
Sustainable Use of Resources	Petrol use per capita has levelled off, but Diesel use per capita continues to rise rapidly. Urban Densities have risen between 1991 and 2001.
Water Quality	Results from the past five years show that as an area becomes more developed, fresh water quality drops significantly, however using low impact design principles can reduce this.
Cultural Heritage	The ARC is currently committed to the New Zealand Archaeological Association (NZAA) Site Recording Scheme Upgrade Project in the Auckland region. By 2006, the condition of over 8,000 sites were recorded. The largest number were classified as damaged.
Cultural Identity	Auckland region has experienced increased ethnic diversity in recent years, with a particular increase in proportion of the population who identify as Asian (from 5% in 1991 to 13% in 2001). Manukau City is the most ethnically diverse area.
Housing Choice and Affordability	A higher number of smaller and more intensive forms of housing are being constructed as the region intensifies. Rents continue to increase, as does the proportion of households not owned by the people living in them.
Open Space	Around 16.5% of the total land area of the region is publicly owned open space.
Urban Amenity	Residents generally feel that their neighbourhoods are staying the same or getting better.
Safe, Healthy Communities	Data from the past ten years shows that the number of reported offences has stayed steady, however, the number of offences that are resolved has increased. An estimated one in five persons (or 21% of the population) lived in areas rated 9 or 10 (most deprived) on the NZ Deprivation Index.
Business Opportunities	Estimated regional GDP growth has generally followed the national trend. Services and Heavy Industry are the dominant sectors in the region, and the majority of businesses and workers are in Auckland City. There has been less commercial floor-space built in 2005 than in 2001, but it has been of higher average value.
Employment Choice	Unemployment in the Auckland region has steadily decreased over the past ten years.
Access and Transport Efficiency	The majority of people drove to work on Census Day in 2001, and overall trips to work are getting longer. However, there have been significant increases in the percentage of people using public transport on key entry points to the central isthmus, and surveys have shown that the number of people who feel that public transport was an option for most of their trips has been increasing steadily.

No information was available to be presented for the Physical and Social Infrastructure Outcome Statements.

INTRODUCTION

This report is an interim report on the effects of growth within the Auckland region, within the 16 outcome areas identified in the 1999 Auckland Regional Growth Strategy (RGS).

It will be updated early 2007 following further refinement of the indicators and update of data from the 2007 Census.

Background

Purpose and Vision of the Auckland Regional Growth Strategy

The Auckland Regional Growth Forum was required to produce a Regional Growth Strategy (RGS) under the Local Government Act 1974. That Act defined the purpose of the strategy:

'To ensure growth is accommodated in a way that meets the best interest of the inhabitants of the Auckland region.'

The final strategy was agreed in 1999. It sets a vision for how the Auckland region's growth can be sustainably managed to 2050, and includes the following vision:

"The diversity and well being of people and communities living in the Auckland region will continue to prosper in a sustainable manner which :

- *Promotes strong, supportive communities*
- *Ensures a high quality living environment*
- *Creates a region that is easy to get around*
- *Protects our coast and surrounding natural environment."*

Outcomes of the Auckland Regional Growth Strategy

The strategy outlines 16 desired regional outcomes. These represent an agreed set of values, and were derived from strategic plans, surveys and consultation and developed through Growth Forum workshops.

It was recognised that these outcomes may, in some instances, conflict or not support each other. To that end, the outcomes were prioritised into three groupings critical, very important and important. The full outcome statements are presented below within those groupings:

Figure 1: Full statement of desired regional outcomes from 1999 Regional Growth Strategy

Critical	Water quality	Water quality in streams and coastal marine area is maintained where it is good and improved where it is now degraded
	Access and transport efficiency	More transport choices and high levels of access for all sections of the community, a closer relationship between home and work, activities, shopping, open space etc., managing traffic congestion and a better passenger transport system
	Coastal environment	Natural character of coastal environment including landscapes, ecosystems, native bush and water quality preserved and enhanced and access to clean and beautiful beaches maintained
	Air quality	Air quality is maintained where it is good, and improved in areas where it is now degraded
	Sustainable use of resources	More efficiency in use of natural and physical resources, including urban land, rural land, infrastructure and energy resources
	Open space	A greater range and diversity of protected open space
	Physical and social infrastructure	Physical and social infrastructure provided, maintained, enhanced and optimised - existing infrastructure maintained and utilised where it has sufficient capacity for growth, and upgraded where it has not
Very Important	Employment choice	More employment choices everywhere, better match of employment to population in different parts of region
	Business opportunity	Improved opportunities for businesses (business growth, development opportunities, affordable and suitable land and infrastructure)
	Urban amenity	Higher quality urban amenity particularly business, residential, shopping and public space areas (more trees, better streetscape, better urban design etc.)
	Safe, healthy communities	Safer, healthier communities with high-quality readily accessible community facilities and services publicly and privately provided (e.g. libraries, sporting facilities, schools, stadia, theatres, cafes, gyms etc.)
	Housing choice/ affordability	Improved housing choice and affordability throughout the region
Important	Habitat	Expansion and protection of high-quality indigenous habitat
	Rural amenity	Better non-urban and rural amenity including landscape protection, and more trees and vegetation
	Cultural heritage	Protection and enhancement of cultural heritage
	Cultural identity	Cultural identity, including maintaining cultural diversity

Brief history of RGS Monitoring

The RGS was designed to be a living document that would be able to respond as circumstances change. To that end, Chapter 4 of the RGS stated that when the strategy is reviewed, "the results of an effective monitoring programme will be used to assess whether or not the objectives of the strategy are being met and whether changes need to occur" (p73). It indicated that monitoring will be carried out at several levels (including by the Regional Council, territorial authorities and other parties), and will focus on regional growth, social, transport and environmental indicators.

In 2000/01, a monitoring strategy was developed by ARC and Auckland local authorities. This identified an extensive set of indicators that could be monitored over time. An initial monitoring report was produced in June 2002 and was designed to serve as a baseline.

The 2000/01 monitoring strategy suggested three key and distinct types of information that needed to be collected in order to adequately review progress of the RGS. These were:

1. *Monitoring the Characteristics of Growth* - That is, defining how the region is growing – the number of people and their lifestyles, housing, households, businesses and the form of development.

2. *Monitoring the Effects of Growth* - This includes monitoring progress within the 16 outcomes areas as defined above.
3. *Monitoring the implementation of the RGS* - evaluating the implementation efforts of Forum partners. The RGS is dependant on continuing implementation of policy consistent with the RGS vision. The monitoring of this will be based on the five key implementation themes (partnerships and relationships, alignment of policy and funding, long term vision and short term actions, wide and adaptable range of implementation measures, and a living strategy) outlined in the RGS.

Current monitoring programme

This interim report presents a variety of information on the second area outlined above: *Monitoring the Effects of Growth*.

The contents of this report are based on the indicator set that was used in the 2002 monitoring report. Some of the indicators have been reviewed, and where possible, updated and improved. General information has also been provided where relevant.

While many of these indicators still stand as appropriate measures of the effects of growth, changes and shifts in regional trends, issues and priorities since 2002 necessitate a review of the indicator set (and of data availability). Work on this review is ongoing, and is expected to be completed in time to incorporate 2006 census data.

A report on broad demographic changes in the region '*Monitoring the Characteristics of Growth*' will be brought to the Growth Forum in early 2007, once the 2006 Census data has become available. It will provide the latest demographic data and population projections and will highlight any major changes or trends.

Improving the implementation of the RGS is a key focus of the current RGS review. A range of papers will be brought to the Growth Forum in 2007 which address implementation commitments and progress, barriers and issues, and tools and opportunities to improve implementation.

This Report

This report presents a variety of general information within each of the 16 outcome areas, with the exception of the Physical and Social infrastructure Outcome.

Each section includes graphs and tables, with a brief commentary on what the data indicates.

Some notes to consider when reading this report:

- This is not intended to be a full and final report
- Timeframes vary according to availability of data. In some instances, data is presented for the most recent year available.
- Comparison across territorial authority (TA) is also presented for some indicators, where data was available. We were not able to provide comparative information in this report by growth centre.
- It is noted that this report presents a fair amount of information from the 2001 Census. Much of this will be updated after the release of 2006 census data.

Once a full review of relevant indicators has been completed and data has been updated, (particularly the 2006 census data), a full analysis of progress in each of the RGS outcome areas, accompanied by additional relevant information, will be provided in early 2007.

Section 1: Environmental Outcomes

Air Quality

"Air quality is maintained where it is good and improved in areas where it is now degraded"

Rated **Critical**

Many of our daily activities release chemicals and particles into the air we breathe. These air pollutants can cause unpleasant smells, hazy days and damage to people's health. Ambient air quality (the measure of the "cleanliness" of the air) depends on the amount of pollution produced by human and natural activities, the degree of dispersion due to wind and weather effects, and complex chemical reactions between pollutants.

Air Quality data presented here:

- PM₁₀ (Particulate Matter) Regional 24 Hour Average
- PM₁₀ Key Site Average Concentration
- PM_{2.5} Regional 24 Hour Average
- CO Regional 8 Hour Average
- SO₂ Annual Average Concentration
- NO₂ Regional one hour average

Findings

Until recently, CO, particles (PM_{2.5} and PM₁₀) and SO₂ concentrations have been generally reducing. These are positive trends, which are likely to have been influenced by reduced levels of sulphur in diesel, and the increasing prevalence of modern, low emission vehicles. However, maximum levels of PM_{2.5}, PM₁₀, NO₂ continue to exceed targets at peak traffic monitoring sites and the trends (of decreasing concentrations) appear to have levelled off. In order to meet the regional air quality targets, emissions of PM_{2.5}, PM₁₀, NO₂ need to be reduced, particularly around peak traffic areas.

The most important health issue for the Auckland Region is the reduction of the annual average PM₁₀ emissions.

However the national environmental standards are also the most important statutory requirement, and these will significantly impact on industry, employment and the regional economy in future years if they are not met. Assessment under these standards shows that a PM₁₀ reduction of 53% is required by 2013. As transport is the largest contributor to this pollutant a transport emission reduction of more than 53% is required over this period.

Figure 2: PM₁₀ Regional 24-Hour Average(1994 to 2005)

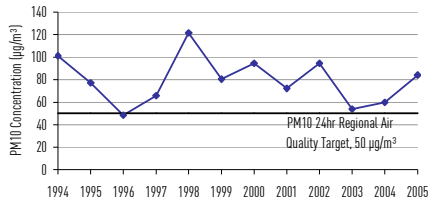


Figure 3 PM₁₀ Key Sites Average Concentration (1994 to 2005)

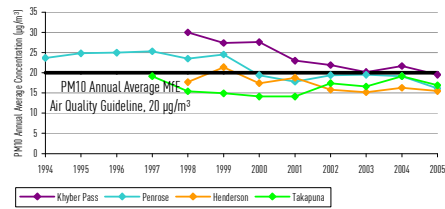


Figure 4:PM_{2.5} Regional 24 Hour Average (1998 to 2004)

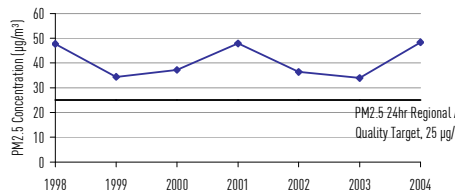


Figure 5:CO Regional 8-Hour Average (1992 to 2004)

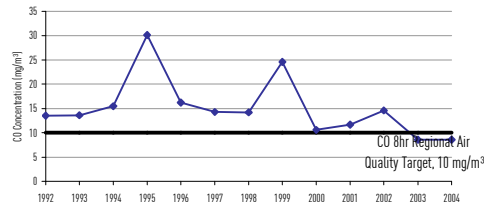


Figure 6: SO₂ Annual Average Concentration (1977 to 2003)

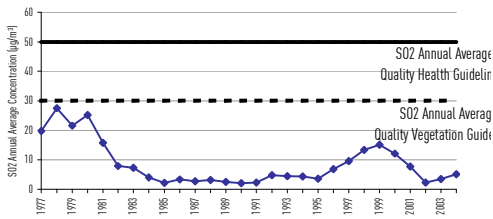
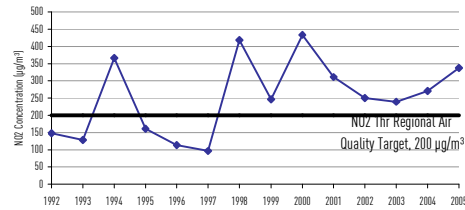


Figure 7: NO₂ Regional 1-Hour Average (1992 to 2005)



Source: ARC

Coastal Environment

"Natural character of coastal environment including landscapes, ecosystems, native bush and water quality preserved and enhanced and access to clean and beautiful beaches maintained"

Rated **Critical**

There are a number of pressures that could degrade the natural character of the coastal environment in the Auckland region. For example, residential and commercial development along the coastline alters the appearance of the coast, and could restrict access to the foreshore and marine farming has the potential to lock out large areas of coastal waters to the public.

Coastal Environment data included here:

- Marine Farming Consents, Licenses and Applications
- Extent of Development along the Hauraki Gulf Coastline
- Average Coastal Setbacks
- Rating of Coastline in Auckland Region

Findings

Marine Farming Consents, Licenses and Applications

Consented Marine farming presently accounts for less than 250 hectares of the Coastal Marine Area (CMA), but there are applications lodged for a further 7,135 hectares. Most of this Marine Farming development pressure is for the Firth of Thames and a small area in South Kaipara Harbour.

In 2001, there were several lodgements for large areas of space around New Zealand and the government placed a moratorium on marine farming while it developed legislation to deal with the increase in pressure on the coastal marine area. The Auckland Regional Council (ARC) notified variations to its coastal plan in 2002, for hearings after the legislation was to be released (late December 2004). The ARC is currently reviewing how it deals with the release of space for marine farming as per the enacted legislation and is updating its marine uses and values database. It is also identifying appropriate areas where an invited private plan change could occur for space around the region.

Figure 8: Marine Farming Consents, Licenses and Applications (as at 2006)

	Hectares
Total RMA Deemed Coastal Permits	247
Total Marine Farm Applications	6888
Marine Farm Applications, Port Fitzroy	20
Marine Farm Applications, Firth of Thames	6313
Marine Farm Applications, Other	555
Total Permits and Applications	7135

Source: ARC

Extent of Development along the Hauraki Gulf Coastline

Auckland region's coastline is relatively highly developed, particularly in the East Coast Bays area. This is also reflected in the average setbacks from the coast in various areas, which is a key determining factor in the natural character of coastal areas.

The majority of the urban parts of the Hauraki Gulf have been built up, while significant parts of the rural coastline have also been developed. Data for the West Coast and Manukau Harbour will be updated in the final report.

Figure 9: Commentary on level of development around Hauraki Gulf coastline (as at 1999)

Landform	Level of Development
Open coast beaches – Waikato	65 percent of all sandy beaches subdivided or partially subdivided. Subdivision close to the shoreline at many beaches over the past 30 to 40 years.
Waikato Estuaries	All major eastern Coromandel Peninsula estuaries have adjacent settlements. Scattered houses and lifestyle blocks around estuary margins. West Coast Coromandel Peninsula is less developed, though only Te Kouma Harbour is largely undeveloped.
Rocky and cliffed coasts - Waikato	Largely undeveloped, particularly in northern Coromandel Peninsula.
South East Coast Beaches	From Beachlands to just north of Kaiiua approximately 50 percent of the coastline has some form of development along it. Sixty-eight percent of beaches along this same stretch of coastline are developed either fully or partially.
Waitemata Harbour	Only 10 percent of the Waitemata Harbour coastline remains undeveloped.
North Shore (Devonport to Okura)	88 % of the North-shore coastline is developed, and the remaining 12 percent is developed to some extent.
Long Bay	Long Bay is the only remaining beach within the Auckland Metropolitan Urban Limits with dune formations, however even these have been significantly modified (although restoration work is now underway).

Source: Hauraki Gulf State of the Environment Report 2004

Average Coastal Setbacks

'Setback' refers to the distance between buildings and coast.¹ In 1999, the largest average setbacks were on the West Coast and at Kaipara Harbour. This is a reflection of a lower population density in these areas and the type of environment (west coast environment is more rugged and inaccessible).

¹ In this report, setbacks are defined as being from the edge of a building to the line of dune vegetation or seawall as measured using 1999 aerial photography. Average common setback based on measurements and a visual assessment of aerial photography.

It has not been possible to update this data since 1999. The inclusion of indicators that capture the potential impact of sea level rise and increased storm events on coastal development (as a result of climate change) will need be considered.

Figure 10: Average coastal set backs (1999)

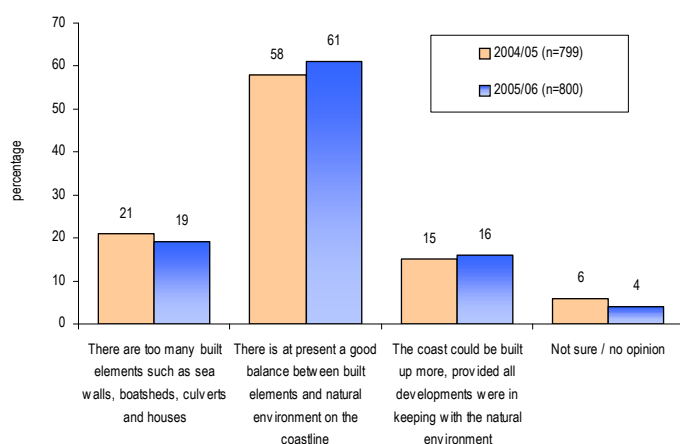
Area of Coast	Average Minimum Setback	Average Common Setback
West Coast	150 m	360 m
Kaipara Harbour	90 m	140 m
Waitematā Harbour Coastline	20 m	50 m
North Shore Beaches	12 m	28 m
Beachlands – Maraetai to just north of Kaiaua	12 m	32 m
Northern East Coast Beaches	12 m	26 m

Source: Hauraki Gulf State of the Environment Report 2004 and RGF Interim monitoring report 2002

Rating of Coastline in Auckland Region

In 2005/06, almost two thirds (61%) of respondents to the ARC’s Environmental Awareness Survey felt that there is currently a good balance between built and natural environments on Auckland’s coastline. This is in line with findings from the previous survey.

Figure 11: Rating of coastline development in Auckland region (2004/05, 2005/06) (%)



Source: ARC Environmental Awareness Survey

Habitat

“Expansion and protection of high quality indigenous habitat”

Rated **Important**

Much of the Auckland region’s natural habitat has been lost to urban development and farming, and continues to be threatened by vegetation clearance, and urban growth. Pests such as possums are also a major threat to both native vegetation and animal species. Because of this, most policy is focussed on protecting and enhancing the habitat that remains e.g. the use of Bushlot covenants.

Habitat data presented here

- Amount of Indigenous Vegetation
- Bird Counts in the Waitakere Ranges
- Bushlot Covenants

Findings

Amount of Indigenous Vegetation

The indigenous vegetation remaining in the Auckland Region is largely forest and scrub with only few and very small areas of wetlands and freshwater lakes left.

Figure 12: Indigenous Vegetation in the Auckland region (2004)

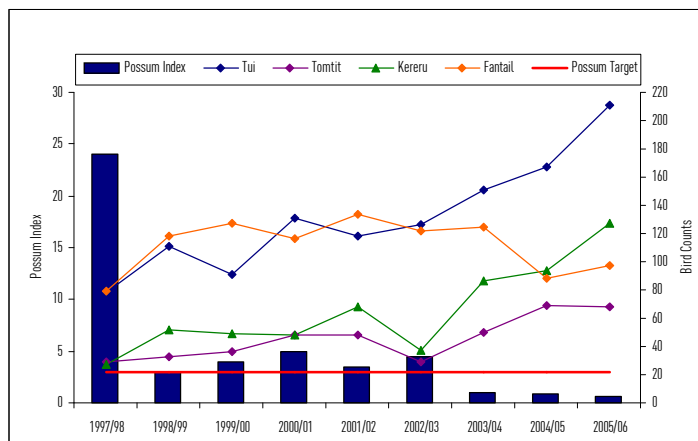
	Hectares
Coastal Sands	27,554
Coastal Wetlands	25,632
Indigenous Forest	914,388
Inland Water	21,231
Mangrove	60,961
Scrub	599,554
Total	1,649,320

Source: ARC and MFE.

Bird Counts in the Waitakere Ranges

Possum control measures in the Waitakere Ranges have been effective, with a substantial reduction in numbers of possums since 1997. Bird numbers have responded correspondingly, with an increase in many of their numbers, particularly tuis.

Figure 13: Possum Residual Trap Catch and bird count numbers for the Waitakere Ranges (1997 to 2005)



Source: ARC.

Bushlot Covenants

Bushlot covenants can be used to protect and rehabilitate native vegetation habitats on private parcels of land, while allowing some additional development potential. Bushlots capture remnants of the original habitat before the land was altered into rural use and they also improve native biodiversity. The number of Bushlots created in Franklin District has been reasonably constant since the mechanism was introduced.²

Figure 14: Bushlot Covenants for Franklin District Council (1998 to 2006)

Year	No. of Council Bush lot Covenants	Hectares of bush in Council covenants	No of QEII open space covenants	Hectares of QEII open space covenants	TOTAL (Ha)
1998	18	218.2	0	0	218.2
1999	27	59.2	2	15.6	74.8
2000	17	27.7	0	0	27.7
2001	15	62.7	4	39.9	102.6
2002	16	70.6	3	43.8	114.4
2003	17	100.9	0	0	100.9
2004	20	24.09	2	8	32.1
2005	12 so far ³	19.3 so far	1 so far	0.57 so far	> 19.9
2006	1 so far ³	10.4 so far	0 so far	0	> 10.4

Source: Franklin District Council

² Bushlot information from other TAs will be sourced for the final report, to give a clearer picture of their use throughout the region

³ There are 39 more incomplete resource consent applications for 2005, and 109 for 2006

Rural Amenity

“Better non-urban and rural amenity including landscape protection and more trees and vegetation”

Rated **Important**

The total area of land outside the MUL is approximately 90% of the Auckland region. This includes islands in the Hauraki Gulf such as Great Barrier Island and Waiheke Island.

A key pressure on rural amenity in the Auckland Region is rural fragmentation, largely caused by the increase of lifestyle blocks. The effects, include increased population, reduced productive land, increased servicing costs and reduced economic activity.

Rural Amenity data presented here:

- Rural and Urban Population
- Lot Sizes outside of the MUL

Findings

Rural and Urban Population

Urban Areas are defined “as the area included within the metropolitan urban limits and with the urban zones of rural and coastal settlements”. Rural Lands/Area are defined “as those areas of the Region including parts of the Hauraki Gulf Islands, which lie outside the defined urban areas and outside MULs and the rural town and coastal settlements’ urban limits.

Figure 15: Growth rates in Rural and Urban Population (1991 to 2001)

	%
Urban (Incl. Rural Towns)	8.7
Rural	8.0
Rural Town	12.2
Rural (Non town)	8.4

Source: Statistics NZ: Census of Population and Dwellings

Figure 16: Increase in Rural and Urban Population inside and outside MUL (1991 to 2001)

	Inside MUL	Outside MUL	Total
1991	838,371	96,459	934,830
1996	949,284	111,771	1,061,055
2001	1,030,821	122,268	1,153,089

Source: Statistics NZ Census of Population and Dwellings.

Lot Sizes outside MUL

The majority of the of lot sizes outside the MUL are small (52% of lots are 0.5ha or less). A comparison of previous periods will be report in 2007 once irregularities in the old data have been worked through.

Figure 17: Proportion of lots outside MUL by size (2001 and 2006) (%)

	2006
0-0.5 ha	52.2
0.5-2 ha	16.1
2-5 ha	14.3
5-20 ha	10.6
20+ ha	6.8
Total	100

Source: ARC GIS Team

Sustainable Use of Resources

“More efficiency in use of natural and physical resources, including urban land, rural land, infrastructure and energy resources”

Rated **Critical**

In light of global trends such as climate change, peak oil, and population growth, it is important to minimise the Auckland Region’s dependence on external resources. These can range from renewable but scarce resources such as water, to non-renewable resources such as oil and land.

Sustainable use of resources data presented here:

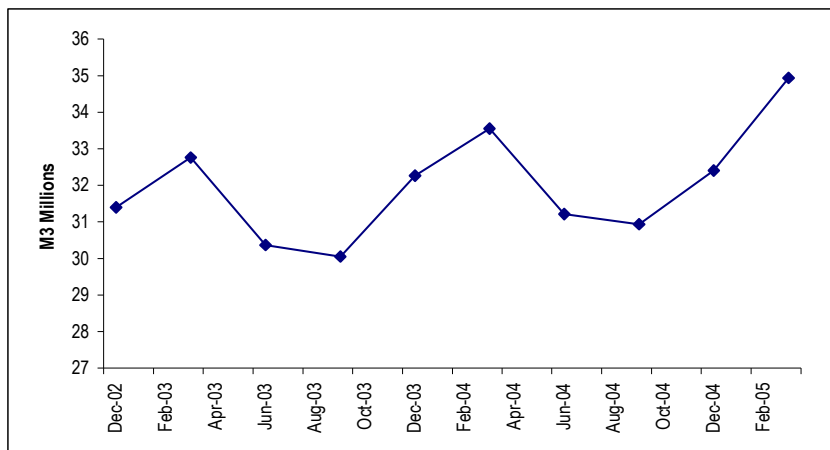
- Water Consumption
- Non- Revenue Water
- Gross Urban Density
- Waste and Recycling
- Fuel Use per Capita
- Regional Energy Consumption

Findings

Water Consumption

Aucklanders are relatively efficient water users – consuming less per capita than people in Melbourne, Sydney or Christchurch. Even with our relatively efficient per capita consumption, overall water demand in the Auckland region continues to grow, due to population growth.

Figure 18: Water consumed by Auckland Region (2002 to 2005)



Source: Watercare Services Limited.

Non Revenue Water

Non revenue water is water that is 'lost' in the system because of leaks, or is un-metered or non billed. It is an indicator of the level of waste that occurs within the water reticulation system. This data was first collected in a standardised way in 2005, and is the latest data available.

Figure 19: Non revenue water information, per organisation (2005)

	Length of Water main	Total Bulk Water Received (m3)	Non Revenue Water (m3)	Real System Water Loss (m3)
Metrowater	2,568	51,585,356	7,178,538	5,837,319
United Water	306	4,831,371	721,864	596,248
Manukau Water	1,961	35,748,706	3,789,363	2,859,897
Rodney District Council	468	3,611,005	567,844	473,958
North Shore City Council	1,360	20,104,876	2,371,486	1,848,759
Waitakere City Council	1,295	16,288,618	1,793,242	1,369,738
Totals	7,958	132,169,932	16,422,337	12,985,919
Watercare Services	444	131,052,000	2,621,040	917,364

Source: Watercare Services Limited.

Gross Urban Density

Household and population densities (within the MUL) have been steadily increasing over the past ten years, and are likely to have further increased since 2001. In simple terms, the higher the urban density, the more efficiently land is being used.

Figure 20: Gross Urban Density inside MUL (1991, 1996, 2001)

	1991	1996	2001
Households per hectare	5.0	5.6	6.1
People per hectare	14.7	16.7	18.1

Source: Statistics NZ, Census of Population and Dwellings and ARC.

Waste and Recycling

The landfills/waste facilities provide the current figures for different types of waste, monitoring of this indicator over time will give patterns and trends.

Figure 21: Waste and Recycling Figures for 2005/06

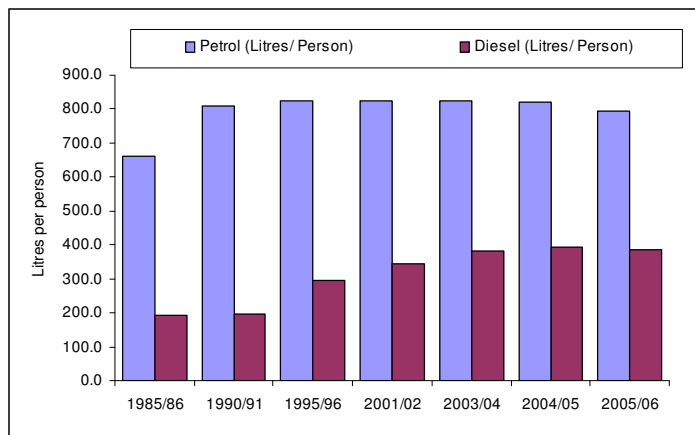
From Within the Auckland Region	Totals
Domestic*	134550.1852
Commercial/Industrial*	225896.48
Special Waste*	249646.99
from Transfer Stations	234010.69
<i>(* = direct to landfills, not from transfer stations)</i>	
From Outside the Auckland Region	
Special Waste	17582.38
Other	39201.75
Total Waste (tonnes)	900888.4752
Cover Material (tonnes) From Off Site	269554.08

Source: ARC

Fuel Use per Capita

The data shows that levels of petrol consumption have stayed largely constant for the past 15 years, and may have started to decrease. However, diesel consumption has increased significantly over the same time period. This is probably linked to significant fluctuations in petrol prices over recent years

Figure 22: Annual fuel sales in the region expressed as litres per person (1985 to 2006)

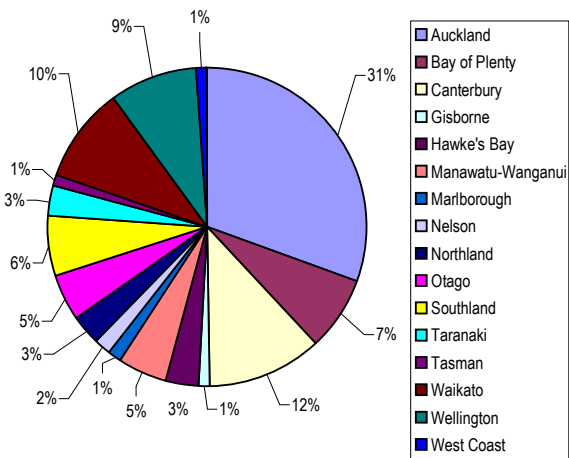


Source: Statistics NZ and Auckland City Council Treasury Department.

Regional Energy Consumption

Auckland region is home to one third of the national population, and uses almost one third of New Zealand's power.

Figure 23: National Energy Consumption by Region (2006)



Source: EECA Energy End Use Database.

Water Quality

"Water quality in streams and coastal marine area is maintained where it is good and improved where it is now degraded."

Rated *Critical*

Water quality is a significant issue in the Auckland Region. Auckland is a maritime region with an extensive, often rugged, coastline, large harbours and estuaries and attractive islands of the Hauraki Gulf. The Region also has numerous lakes, rivers, streams, wetlands and aquifers. The quality of water can either enhance the values of these resources or degrade them with a direct effect on the quality of life of Aucklanders, visitors and all those who are resource users.

Water is a resource that is sensitive to the impacts of activities on land or water. Hence, maintaining or enhancing its quality requires a comprehensive and integrated approach to its management.

Water Quality data presented here:

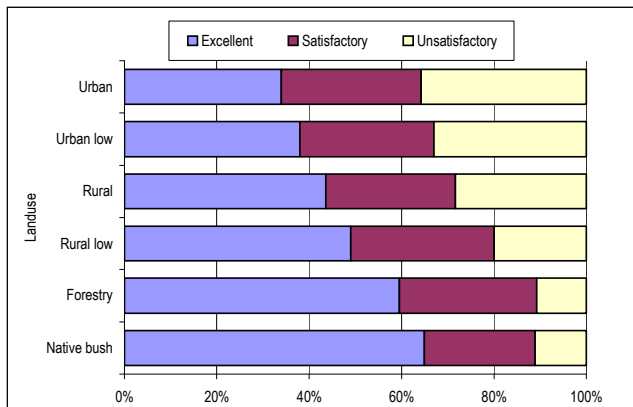
- Stream Water Quality and Ecological Health
- Water Quality at Selected Auckland Beaches

Findings

Stream water quality and ecological health

As environments move from an unmodified state (native bush) to a highly modified state (urban), freshwater quality declines substantially. Data presented here is an amalgam of data on freshwater: clarity, temperature, faecal coliforms and saline suspended solids. It shows that once rural land is converted to urban land it reduces the ability to achieve anything more than satisfactory water quality outcome, with a tendency to become unsatisfactory. Retention and rehabilitation of rural land can give an excellent reading for water quality.

Figure 25: Amalgam of stream water quality indicators (2001 to 2005)



Source: ARC

Water Quality at Selected Auckland Beaches

Since 1999, Auckland City, North Shore City and Rodney District Council have regularly tested beach water quality across the east coast and Hauraki Gulf Islands over the summer period. Water samples are collected by helicopter each Wednesday and sent for laboratory testing of enterococci levels.

Water samples have been collected from a 0.5 metre depth. The majority (98.3%) of samples analysed over the past two years for Enterococci bacteria indicated that the selected beaches were suitable for swimming and contact recreation. The 'Result' column shows the enterococci level (enterococci/100ml) on the sampling date. The 'Status' column shows either

- **Safe** - Water quality at this beach is within the Ministry for Environment's guidelines.
- **Retesting** - The number of bacteria found is elevated. The water may be potentially unsafe. Retesting will take place at this beach to confirm water quality. Results will be posted when received.
- **Unsafe** - Water quality at this beach is not within guidelines and the water is potentially unsafe. We retest the water at this beach and will post the results as soon as they are available. In the meantime, health-warning signs are put up on the beach advising the public against swimming or participating in water activities at this beach.

Figure 24: Sample of Selected Auckland Bathing Beaches Water Quality (2005/06)

Source: ARC, using Safeswim data

Deleted: <sp>

Section 2: Social Outcomes

Cultural Heritage

“Protection and enhancement of cultural heritage”

Rated **Important**

The Auckland region has a rich and diverse cultural heritage. However, our cultural heritage resources are under increasing pressure from development, as Auckland is the largest and fastest growing urban area in New Zealand. While there is no comprehensive evaluation of the state and condition of the region’s cultural heritage, a project to systematically monitor the resource was initiated in 2002 by the ARC.

Cultural heritage data presented here:

- Number of protected historic heritage sites
- Status of Archaeological Sites

Findings

Number of protected historic heritage sites

The ARC Cultural Heritage Inventory (CHI) has records for approximately 15,100 historic heritage sites. This includes:

- Over 9500 recorded archaeological sites
- 900 sites with historic maritime associations within the coastal marine area
- Over 2500 historic buildings and structures
- Some 900 botanical heritage sites.

Of these sites 2152 are formally recognised for protection in a schedule, list or policy within the regional and district council plans. The table below illustrates numbers of items protected by each TA over time.

Figure 25: Protected sites by TA (2000-2006)

	2000	2003	2006
Auckland City	725	739	741
Franklin District	83	84	82
Manukau City	224	227	317
North Shore City	210	523	523
Papakura District	29	29	29
Rodney District	481	481	
Waitakere City	366	367	373
ARC	87	87	87
Total	2205	2537	2152

Source: ARC Heritage Team.

Status of Archaeological Sites

The proportion of sites that were classified as intact, damaged, destroyed or with no information has stated largely the same over the past seven years. The largest number of sites are classified as 'damaged', followed by Intact.

The ARC is currently committed to the New Zealand Archaeological Association (NZAA) Site Recording Scheme Upgrade Project in the Auckland region. This is an integrated project involving ARC, FDC, WCC, RDC and the NZAA to gather updated information on all recorded archaeological sites in the region. The results of the project will enable better informed statements about the state and condition of the archaeological resource in the Auckland region. The results of the project can be expected in 2008 to 2009.

Figure 26: Condition of archaeological sites in the Auckland region by TA (1999 and 2006)

		ACC	FDC	MCC	NSCC	PDC	RDC	WCC	TOTAL	%
Intact	1999	635	100	282	27	7	537	15	1603	20
	2006	691	197	315	30	22	603	28	1886	22
Damaged	1999	1,385	624	629	105	21	1,989	432	5185	64
	2006	1490	729	712	155	41	2227	451	5805	66
Destroyed	1999	183	44	86	24	6	149	100	592	7.3
	2006	272	60	108	31	9	184	114	778	8.9
No information	1999	184	247	111	20	6	97	34	709	8.7
	2006	59	74	30	31	6	41	31	272	3.1
Total	1999	2387	1,015	1,108	186	40	2,772	581	8079	100
	2006	2512	1060	1165	247	78	3055	624	8741	100

Source: ARC Heritage Team, using data provided to the New Zealand Archaeological Association Site Record File

Cultural Identity

"Cultural identity, including maintaining cultural diversity"

Rated **Important**

A key characteristic of Auckland region is ethnic and cultural diversity. This diversity is likely to increase, enhanced by increasing immigration.

Cultural Identity data presented here:

- Ethnic Identity
- Long Term National Migration Trends
- Languages spoken
- Key Sources of Immigrants

Findings

Ethnic Identity

Auckland region has experienced increased ethnic diversity in recent years, with a particular increase in proportion of the population who identify as Asian (from 5% in 1991 to 13% in 2001). Manukau City is the most ethnically diverse area.

Figure 27: Ethnicity by TA (1991 to 2001) (%)

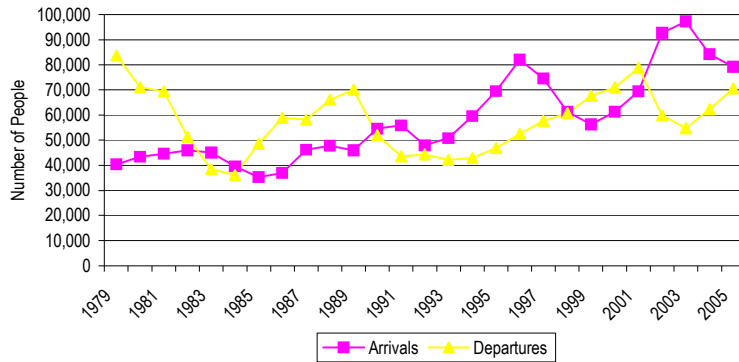
	European			Maori			Pacific			Asian			Other		
	1991	1996	2001	1991	1996	2001	1991	1996	2001	1991	1996	2001	1991	1996	2001
Rodney District	91	88	89	6	8	8	1	2	2	1	2	2	0	0	0
North Shore City	89	81	80	5	7	6	2	3	3	3	8	12	0	1	2
Waitakere City	75	70	68	11	12	12	10	11	13	4	7	10	0	1	1
Auckland City	70	65	62	9	9	8	13	13	13	8	13	17	0	1	1
Manukau City	58	53	49	16	16	15	20	21	24	6	10	14	0	1	1
Papakura District	72	68	71	19	21	22	6	6	7	3	4	5	0	0	1
Franklin District	81	78	79	14	16	15	2	3	3	3	4	4	0	0	0
Total Auckland Region	72	67	65	11	11	11	11	12	13	5	9	13	0	1	1

Source: Statistics New Zealand – Census of Population and Dwellings

Long Term National Migration Trends

Long-term permanent departures from New Zealand appear to work in long-term cycles, but do not appear to be increasing. Since 1979, long-term arrivals have been increasing. While departures exceeded arrivals during 1999-2001, since that time arrivals have been significantly higher than departures, peaking in 2003.

Figure 28: Arrivals and Departures (national) (1979 to 2005)



Source: NZ Immigration Service

Note: Data is national data, not Auckland region specific

Languages Spoken

Diversity of languages spoken reflects diversity of cultures. In 2001, a significant proportion of the Auckland regions population spoke in Pacific Islands and Asian languages.

Figure 29: Top ten languages spoken in Auckland region (2001)

	Number of speakers
English	1,024,440
Samoan	53,856
Māori	34,977
Yue	25,095
Tongan	19,626
Northern Chinese	19,158
French	17,316
Hindi	17,004
Korean	11,217
German	11,133
Arabic	5,007

Source: Statistics NZ - Census of Population and Dwelling

Key Sources of Immigrants

Snapshots from 2001 and 2005 show that the key sources of migrants, and destinations of emigrants have stayed largely constant. Australia and the United Kingdom are the two main sources of both immigrants and emigrants. Many of these will be New Zealanders. Numbers of migrants from China have declined significantly between the two periods.

Figure 30: Country of Last permanent residence (2001 and 2005)

	Arrivals 2001		Arrivals 2005	
United Kingdom	16,844	21	22,013	28
Other	15,719	19	15,181	19
Australia	12,186	15	13,389	17
People's Republic of China	11,107	14	4,102	5
United States of America	4,249	5	3,674	5
Japan	3,920	5	3,471	4
Fiji	3,086	4	2,808	4
India	2,782	3	2,569	3
Germany	2,616	3	2,080	3
Korea, Republic of	2,420	3	1,769	2
Samoa	1,324	2	1,720	2
Canada	1,222	2	1,521	2
South Africa	1,031	1	1,492	2
Ireland	1,009	1	1,378	2
Malaysia	795	1	1,109	1
France	784	1	687	1
Total	81,094	100	78,963	100

Source: NZ Immigration Service data.

Note: Data is national data, not Auckland region specific

Figure 31: Country of next permanent residence (2001 and 2005)

	Departures 2001		Departures 2005	
Australia	34,766	48	36,033	50
United Kingdom	12,430	17	14,852	21
Other	8,760	12	8,445	12
United States of America	622	1	3,151	4
Japan	1,826	3	1,874	3
Korea, Republic of	2,492	3	1,215	2
Canada	331	0	1,194	2
Ireland	446	1	1,100	2
People's Republic of China	2,986	4	862	1
Hong Kong (SAR)	943	1	557	1
Germany	508	1	470	1
Samoa	1,485	2	443	1
Malaysia	535	1	419	1
Fiji	653	1	283	0
India	2,800	4	276	0
South Africa	409	1	194	0
Total	71,992	100	71,368	100

Housing Choice and Affordability

"Improved housing choice and affordability throughout the region"

Rated *Very Important*

The Regional Growth Strategy outlines a vision in which there are a greater variety of housing types available, including a much larger proportion of medium and high density housing. It also seeks to maintain affordable rents and house prices. Since the release of the RGS, housing choice and affordability has become an issue of some concern both nationally and within the region.

Housing Choice and Affordability data presented here:

- Private dwellings: Number of bedrooms
- Mean Rent Paid
- Proportion of Households not owned by Residents

Findings

Private dwellings: Number of bedrooms

The housing stock in the Auckland region as at the 2001 Census was dominated by three bedroom dwellings. Manukau City and Franklin District had the largest proportion of houses with four or more bedrooms, while higher proportions of dwellings in Auckland City were one or two bedrooms.

Figure 32: Number of bedrooms in private dwellings, by TA (%) (2001)

	Total Number of private dwellings	One Bedroom	Two Bedrooms	Three Bedrooms	Four Bedrooms	Five or More Bedrooms	Not Specified	Total
Rodney District	28536	4.7	18.5	43.4	21.4	6.6	5.4	100
North Shore City	66465	4.5	17.7	45.0	23.0	6.6	3.2	100
Waitakere City	56034	3.8	15.7	50.9	17.9	5.9	5.8	100
Auckland City	132126	9.9	26.2	36.6	15.3	5.5	6.4	100
Manukau City	83592	2.8	15.1	47.7	21.1	7.1	6.1	100
Papakura District	13512	2.7	17.3	47.7	20.8	5.8	5.8	100
Franklin District	17670	3.4	13.4	47.4	22.5	6.7	6.6	100
Auckland Region	393,261	5.8	19.7	43.6	19.1	6.2	5.7	100

Source: Statistics NZ Census of Population and Dwelling

Mean Rent Paid

Data from the 2001 Census shows that rents are higher in the Auckland Region than in the rest of New Zealand. At that time North Shore City has the highest rents, followed by Auckland City. Franklin District has the lowest average rent of all the TAs in the region. . Mean rents have increased fairly consistently since 1991.

Figure 33: Mean Rental Paid, by TA (\$) (1991, 1996, 2001)

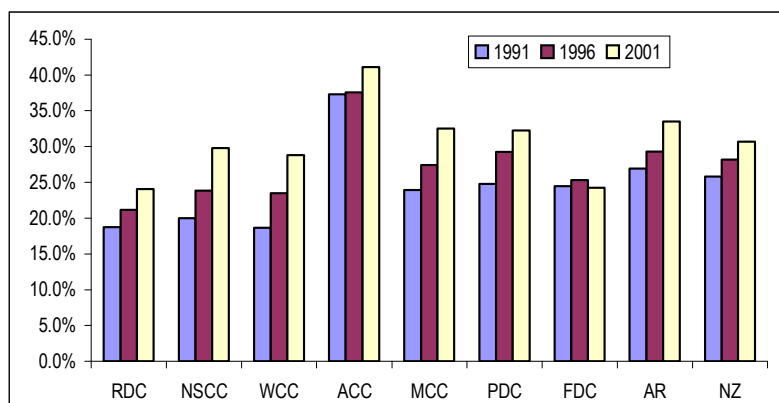
	1991	1996	2001
Rodney District	131	174	203
North Shore City	173	222	241
Waitakere City	142	190	206
Auckland City	155	215	233
Manukau City	135	199	200
Papakura District	132	184	192
Franklin District	110	147	177
Auckland Region	150	206	220
New Zealand	118	161	174

Source: Statistics NZ Census of Population and Dwelling.

Proportion of Households not owned by Residents

The proportion of households who rent is growing faster in the Auckland Region than in the rest of the country, which is likely to be caused by high real estate prices. Auckland City has the highest proportion of houses that are not owned by residents, while Franklin District and Rodney District have the lowest levels.

Figure 34: Proportion of Households not owned by Residents (1991, 1996, 2001)



Source: Statistics NZ - Census of Population and Dwellings.

Urban Amenity

Higher quality urban amenity, particularly business, residential, shopping and public space areas (more trees, better streetscape, better urban design etc”

Rated *Very Important*

With increasing urban densities it is important to maintain and improve the amenity of the natural and built urban environment. What is defined as a high quality urban environment is very subjective. This report considers resident’s perceptions of their neighbourhood.

All Auckland councils are now signatories to the New Zealand Urban Design Protocol (the Protocol), launched by central government in March 2005. The Protocol provides a platform to make NZ towns and cities more successful through quality urban design. More than one hundred organisations have signed up to the Protocol. Since 2005 there has been an enhanced focus on urban design across the Auckland Region including:-

- Auckland City Council’s Urban Design Task Force, Urban Design Panel and appointment of a City Urban designer
- Piloting of an urban design panel by Manukau City Council
- Development of design guidance, such as the Apartment Design Guide, being lead by NSCC
- Visits by international urban design and sustainability experts including Ian Bentley, Sir Jonathon Porrit, Sebastian Moffat, Alan Hoffman, Jan Gehl, Peter Price-Thomas
- Promotion of low impact design (LID) and urban design, development of a presentation, student competition and LID fund, by the ARC
- Significant urban design input to key developments in region e.g, Flat Bush, Waterfront, Henderson Central, Orewa, Long Bay
- Development of new public buildings that have won urban design and sustainable building awards
- New policies to encourage better urban design in District Plans and RPS.

New indicators will need to be developed to monitor the impact of these kinds of initiatives on urban design outcomes in the region. Monitoring of the Action Plans by MFE may provide some guidance.

The Department of Building and Housing is undertaking a Review of the Building Code, and have released a draft document of issues and objectives for consultation. Submissions to this document will be summarised in November 2006 and performance criteria will be developed in 2007. It is hoped that new measures for building quality and design will flow out of this building code review.

Urban Amenity data presented here

- Residents Perceptions of Aspects of their Neighbourhood
- Residents Perceptions of Changes in their Neighbourhood

Findings

Residents Perceptions of Aspects of their Neighbourhood

Results show that the percentage of respondents who are “satisfied” or “very satisfied” with their neighbourhood has increased over the three surveys conducted between 2001 and 2005. There are high levels of satisfaction with access to shops, parks and open spaces. While many respondents are satisfied with “the look and feel” of their neighbourhood, less are satisfied with the quality and style of new buildings, and the availability of public transport and cycling facilities.

Figure 35: Percentage who are ‘very satisfied’ or ‘satisfied’ with aspects of their neighbourhood (2000/01 to 2004/05)

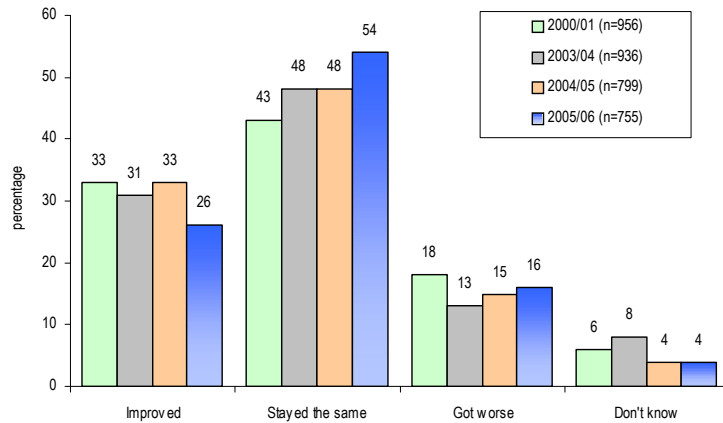
	2000/01	2003/04	2004/05
Access to shops	87	79	93
Access to parks and open space	83	79	93
Look and feel of the neighbourhood	71	70	83
Walking facilities	-	-	81
Noise level in your neighbourhood	-	69	73
Access to indoor recreational activities	57	51	68
The distance you have to travel to get to work/ study	55	59	63
Quality and style of new buildings in your neighbourhood	-	46	60
Availability of public transport	43	36	55
Cycling facilities	-	-	46

Source: ARC Environmental Awareness Surveys

Residents Perceptions of Changes in their Neighbourhood

Respondents to the ARC's Environmental Awareness Survey were asked 'Would you say your neighbourhood has improved, stayed the same or got worse over the last three years?'. Results are generally favourable - in 2005/06, half (54%) felt their neighbourhood had stayed the same in the last three years. This is in line with previous years. Sixteen percent felt that their neighbourhood had got worse in the past three years.

Figure 36: Rating of neighbourhood in past three years (2000/01 to 2005/06)



Source: ARC Environmental Awareness Surveys.

Open Space

"A greater range and diversity of protected open space"

Rated **Critical**

Open space is going to be increasingly important in the future, as population and urban density increases. Of particular importance is the amount of open space within the metropolitan urban limits. Increased urban densities will also mean that the type and quality of open space may have to change to suit new lifestyles made possible by medium and high density urban environments.

Open Space data presented here

- Estimated Regional Open Space

Findings

Estimated Regional Open Space

Open space includes regional and public parks.

Figure 37: Regional Open Space (2002 - 2006)

	Total Open Space 2006	Total Area	Open Space % 2006
Rodney District	12,261	235,504	5.2%
North Shore City	1,726	12,729	13.6%
Waitakere City	18,271	36,039	50.7%
Auckland City	25,819	62,852	41.1%
Manukau City	7,772	54,060	14.4%
Papakura District	1,212	11,790	10.3%
Franklin District	15,341	87,046	17.6%
Region	82,402	500,020	16.5%

Source: ARC GIS Team.

Safe, Healthy Communities

"Safer, healthier communities with high-quality readily accessible community facilities and services publicly and privately provided (e.g. libraries, sporting facilities, schools stadia, theatres cafes, gyms etc.)"

Rated *Very Important*

It is important that those living in the region continue to feel safe and healthy. A growing population can put pressure on community facilities and an increase in population density could lead to more incidences of reported unsociable behaviour. In promoting a compact city the RGS also seeks to improve the

Safe and Healthy Communities data presented here:

- Reported Crime
- New Zealand Deprivation Index
- Living Standards scale

Findings

Recorded Crime

The total number of offences, and the percent that are resolved appear to be relatively constant, with any fluctuation occurring within a discreet band. The majority of offences are classified as dishonesty, which over the ten-year period accounted for 64 percent of all offences.

Figure 38: Number of reported crimes in Auckland region (1997 to 2005)

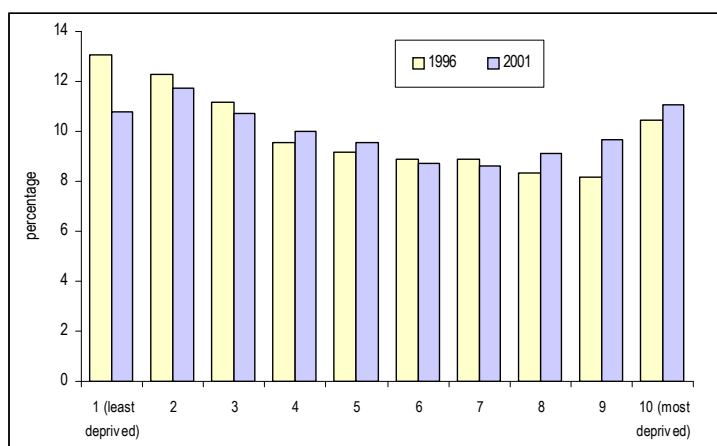
	1997	1998	1999	2000	2001	2002	2003	2004	2005
Dishonesty	101100	96220	88663	87166	88370	94467	93526	82948	84745
Violence	13464	13653	13315	14627	15899	16032	15956	15409	16797
Drugs & Antisocial	14985	15150	16213	16660	17343	17432	18222	16058	16171
Property Damage	9231	8492	8356	9208	9121	9251	9824	8888	10361
Property Abuse	5750	5707	5767	6474	6842	7502	7015	6582	6297
Administrative	2477	2671	2413	3169	2596	3289	4717	3707	4240
Sexual	965	985	910	1084	935	1048	996	974	1003
Total Offences	147972	142878	135637	138388	141106	149021	150256	134566	139614
Percent of Offences Resolved	33	33	35	39	38	38	39	40	38

Source: Statistics NZ, NZ Police.

NZ Deprivation Index

The economic and social circumstances of Auckland regional residents impacts significantly on their ability to provide for every day needs and to participate in the wider community. In 2001, although the population of Auckland region was distributed across all deciles on the New Zealand deprivation index and a quarter of the population lived in areas rated 1 or 2 (least deprived), an estimated one in five persons (or 21% of the population) lived in areas rated 9 or 10 (most deprived). Further, this proportion had increased from 18.6% in 1996.⁴

Figure 39: Proportion of Auckland regional population living in within each NZ Deprivation Index Decile (1996 and 2001)



Source: University of Otago, Wellington School of Medicine and Health Sciences

⁴ The 2001 index is a composite of a variety of factors including:

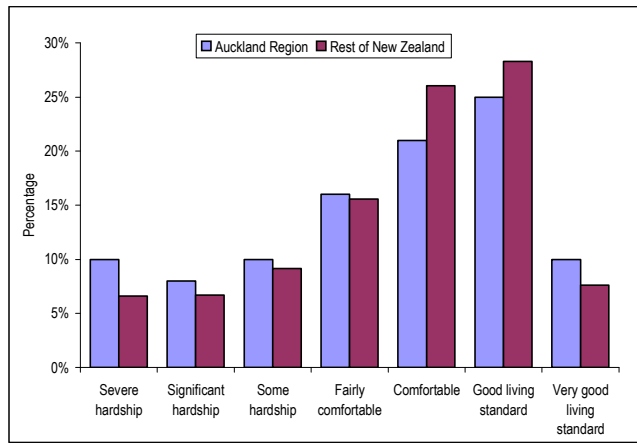
- Income – equalised household income (adjusted for household composition)
- Income – people aged 18 to 59 years receiving a means tested benefit
- Transport – people with no access to a car
- Communication – people with no access to a phone
- Support – people aged less than 60 years living in a sole parent family.
- Owned home – people not living in own home
- Qualifications – people aged 18 to 59 years with no qualifications
- Employment – unemployed people aged 18 to 59 years
- Living space – equalised household below a bedroom occupancy threshold

It is compiled using census data and is expected to be updated in 2007.

Living Standards scale

Ministry of Social Development work on living standards found that people living in Auckland region had the lowest mean living standard score of all regions (38.3 on the ELSI scale) and the highest proportion with ELSI scores indicating some degree of hardship (28%).⁵

Figure 40: Living Standards Auckland matched to New Zealand (2004)



Source: Ministry of Social Development

⁵ Data presented here is from the Economic Living Standard Index (ELSI). The ELSI scale is based on a large number of indicative items about a family's household amenities, personal possessions, social and recreational activities, ability to have preferred foods, access to important services (eg medical treatment) and such like. It also includes three general self ratings, which enable people to give their own assessment of their standard of living, their satisfaction with their standard of living and the adequacy of their income to meet their everyday needs. Thus, although the majority of the scale items relate to specific activities, possessions, amenities, etc, the resulting scale also reflects people's self-perceptions. The contribution of the self-ratings to the ELSI score is proportionately greater at the higher end of the scale than at the lower end. There is a considerable degree of concordance between the different types of information.

Section 3: Economic Outcomes

Business Opportunities

"Improved opportunities for businesses (business growth, development opportunities, affordable and suitable land infrastructure)"

Rated *Very Important*

The GDP per Capita for the Auckland Region is higher than for New Zealand as a whole indicating a higher average level of economic activity. The regions industrial sector breakdown is similar to that of New Zealand, but there are significant differences within the region, reflecting urban/rural land uses (Agriculture, forestry and fisheries) and areas of high growth (construction) etc. Auckland City dominates the value of new commercial building consents, although there are significant commercial developments, of lower average price, in other areas.

Business Opportunities data presented here:

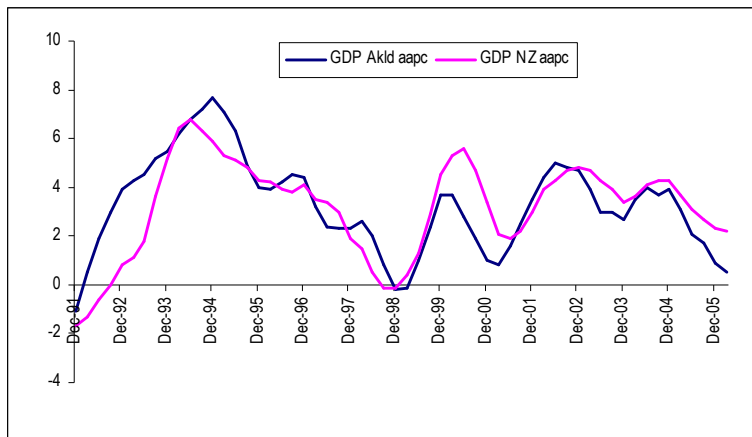
- The Business Cycle
- Industry Type
- New Commercial Floor Areas

Findings

The Business cycle

Estimated average annual growth in regional Gross Domestic Product (GDP) has followed the national trend.

Figure 41: Average annual percent change in GDP in Auckland region and New Zealand (1991 to 2005)



Source: National Bank of New Zealand. Regional GDP figures are estimates.

Industry Type

In February 2005, there were a total of 129, 588 businesses in the Auckland region. Almost half (43%) of businesses are located in Auckland City, and the tertiary sector is dominant, with 80% of businesses in this area.⁶

Figure 42: Business Locations within Industry Sector, by TA (as at February 2005)

	Primary Sector	Secondary Sector	Tertiary Sector	Total
Rodney District	415	2,591	6,221	9,227
North Shore City	62	4,193	18,132	22,387
Waitakere City	64	3,687	9,384	13,135
Auckland City	249	6,749	49,130	56,128
Manukau City	155	4,658	16,380	21,193
Papakura District	61	1,008	2,626	3,695
Franklin District	270	1,259	3,606	5,135
Auckland Region	1,159	23,819	104,610	129,588
New Zealand	14,642	66,809	284,677	366,128

Source: Statistics NZ - Business Demographic Statistics.

New Commercial Floor Areas

Data from 2001 to 2005 shows that while the number of commercial buildings consented to has stayed largely the same, the size and value of the buildings has increased considerably.

Figure 43: Commercial Floor Consents (2001 to 2005)

	No. of commercial building consents	Commercial floor area building consents issued (m ²)	Value of commercial building consents (\$m)
2001	563	443,000	246,325,000
2002	707	538,000	276,042,000
2003	624	530,000	339,283,000
2004	699	758,000	537,129,000
2005	513	677,000	578,515,000

Source: Statistics NZ - Building Consents database

⁶ The primary sector includes 'Agriculture, Forestry and Fishing' and 'Mining' industries. The secondary sector includes 'Manufacturing', 'Electricity, Gas and Water Supply' and 'Construction' industries. The tertiary sector includes 'Wholesale Trade', 'Retail Trade', 'Accommodation, Cafes and Restaurants', 'Transport and Storage', 'Communication Services', 'Finance and Insurance', 'Education', 'Property and Business Services', 'Government Administration and Defence', 'Health and Community Services', 'Cultural and Recreational Services' and 'Personal and Other Services' industries.

All employment data have been rounded. The sum of components in a table may therefore not add to the total shown. Percentages are calculated from the rounded figures

Employment Choice

“More employment choices everywhere, better match of employment to population in different parts of region”

Rated *Very Important*

The Auckland Region has seen a continued drop in the unemployment rate over time and has a slightly more qualified labour force. Occupation data does vary between TAs and this is probably reflective of the land use and commercial activities that occur within these centres.

Employment Choice data presented here:

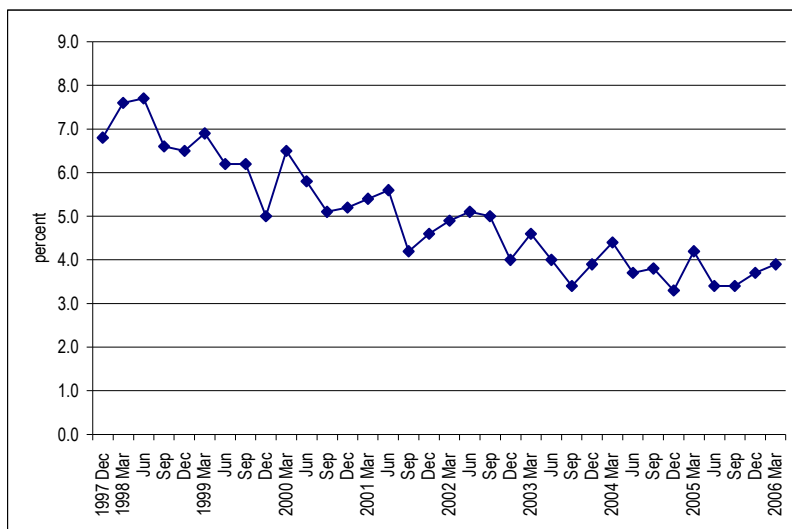
- Unemployment Rate
- Occupational Structure
- Highest Educational Qualification

Findings

Unemployment Rate

Unemployment has been steadily decreasing in the Auckland region over the past nine years.

Figure 44: Unemployment Rate (1998 – early 2006)



Source: Statistics NZ.

Occupational Structure

There are higher proportions of legislators, administrators, managers, professionals and technicians in North Shore City and Auckland City (high than NZ average). Agriculture and fishery workers make up a higher proportion of workforce in Rodney and Franklin, as would be expected from their rural nature and economic activity.

Figure 45: Occupation of those aged 15 years and over and in full time employment, by TA (2001) (%)

	Rodney District	North Shore City	Waitakere City	Auckland City	Manukau City	Papakura District	Franklin District	Auckland Region	New Zealand
Legislators, Administrators and Managers	15	17	13	17	13	13	12	15	13
Professionals	11	17	12	20	12	11	10	15	14
Technicians and Associate Professionals	11	15	13	14	11	10	9	13	11
Clerks	12	15	15	14	16	16	12	15	13
Service and Sales Workers	13	15	14	13	13	13	10	13	14
Agriculture and Fishery Workers	9	1	2	1	2	4	14	2	8
Trades Workers	12	8	12	6	10	11	10	9	8
Plant and Machine Operators and Assemblers	8	5	9	5	10	10	10	7	8
Elementary Occupations	9	8	11	10	15	12	12	11	11
Total	100	100	100	100	100	100	100	100	100

Source: Statistics NZ: Census of Population and Dwellings
Percentages are column based

Highest Educational Qualification

The Auckland region's population generally has a higher level of educational attainment than the rest of New Zealand.

Figure 46: Highest Educational Qualification (of those aged 15 years and over) (%) (2001)

	Auckland Region	New Zealand
No Qualification	19	24
School Qualification Only	37	34
Vocational Qualification	17	18
Bachelor Degree	9	7
Higher Degree	4	3
Other	14	14
Total	100	100

Source: Statistics NZ: Census of Population and Dwellings

Section 4: Transport Outcomes

Access and Transport Efficiency

"More transport choices and high levels of access for all section of the community, a closer relationship between home and work, activities, shopping, open space etc., managing traffic congestion and a better passenger transport system"

Rated **Critical**

Auckland's regional transport network is under pressure from population growth, increased car ownership, dispersed travel patterns and historic low levels of infrastructure funding. In response, the 2005 Regional Land Transport Strategy sets out a series of priorities, including increasing public transport funding and patronage, completing key roading projects and implementing travel demand management.

Access and Transport Efficiency data presented here:

- Journey To Work Mode Split
- Central Isthmus Mode Splits
- Average Length of Journey To Work
- Perception of the Usefulness of PT services.
- Annual Passenger Transport Boardings

Journey to Work Mode Split

All modes, with the exception of being a passenger in a car, truck, van or company bus, and walking and jogging experienced increases between 1996 and 2001. This data will be updated in 2007 when new Census data becomes available.

Figure 47: Mode used for main part of journey to work or study on Census Day (1991, 1996, 2001)

Mode	1991		1996		2001	
	numbers	%	numbers	%	numbers	%
Drove a Vehicle	258,375	72.7	309,744	74.0	336,650	74.7
Passenger in a Vehicle	27,222	7.7	26,358	6.3	24,036	5.3
Public Transport	25,185	7.1	26,091	6.2	28,758	6.4
Cycled/Walked/Jogged	25,491	7.2	23,964	5.7	23,667	5.3
Worked at Home	19,227	5.4	32,259	7.7	37,527	8.3

Source: Statistics NZ: Census of Population and Dwellings

Central Isthmus Mode Splits

The mode share of passenger transport has increased in most of the routes reported. Significant increases in the proportion travelling by passenger transport have occurred over the Auckland Harbour Bridge, from West Auckland and through the Manukau-East Isthmus. This may be a reflection of new passenger transport services that have been put on to service areas of high population growth.

Figure 48: Modal Splits (1991 to 2006)

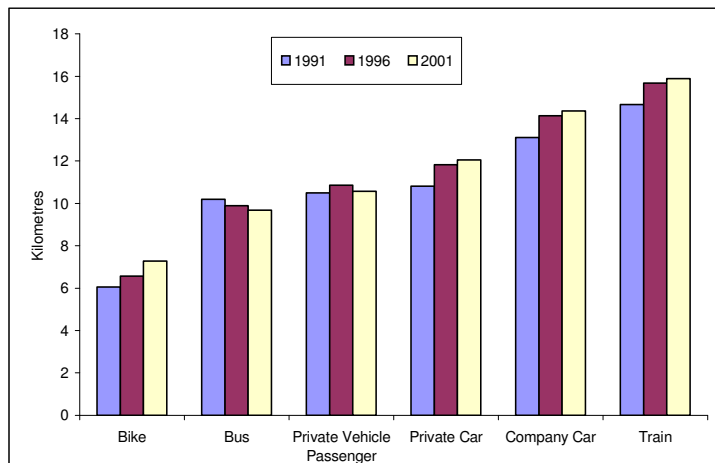
Counting Station	1991/92	1996/97	2001	2006
Harbour Bridge	13	15	24	27
North-Western Motorway	10	10	6	11
West Auckland	10	12	9	19
Manukau-West Isthmus	13	10	10	9
Manukau-Central Isthmus	11	13	16	10
Manukau-East Isthmus	8	8	8	19

Source: ARC Occupancy and Passenger Transport Surveys carried out by Beca.

Average Length of Journey to Work

On average people travel furthest to work in trains and company cars and the least distance by cycling. Average distances travelled to work have increased between 1991 and 2001 for cycling, private car, company car and train travel modes, while the average bus travel distance has decreased.

Figure 49: Average length of journey to work on Census Day (1991, 2001 2006)

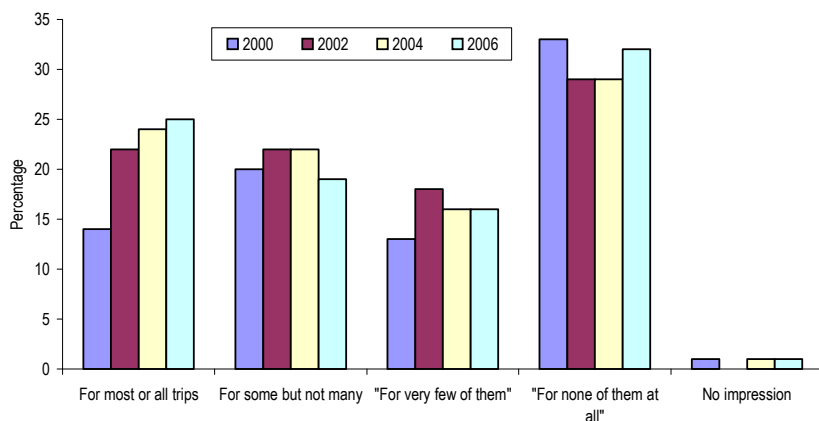


Source: Statistics NZ: Census of Population and Dwellings

Residents' perceptions of level of access using Public Transport

Respondents to ARC's Transport Perceptions Survey were asked to indicate whether they would consider using public transport for their journeys around the region. While the majority of respondents did not regard public transport as an option for any of their trips, the proportion that regard it as an option for 'most or all trips' has been increasing constantly since this question was first asked in 2000.

Figure 50: Perceptions of public transport (2000 to 2006)



Source: Transport Perceptions Survey conducted by NRB on behalf of the ARC.

Annual Passenger Transport Boardings

There were just over 51.2 million recorded passenger transport boardings in the Auckland region in 2005/2006 year - 0.5 million more trips than the previous year. The majority of trips were by bus (82% or 47,174 million), with a further 10% by train and 8% by ferry.⁷

The number of passenger transport boardings in the Auckland region has been increasing for much of the last 10 years, with large increases recorded since 2000. However, it should be noted that this may not necessarily represent an increase in the proportion of people using passenger transport as the population has also increased over this period.

Declines in bus patronage in recent years has been offset by an increase in rail and ferry patronage (5.03 million trips and 3.93 million trips respectively in 2005/06). Rail patronage has benefited in recent years from the opening of Britomart and improvements to services.⁸

⁷ This is a count of the total trips taken and, therefore, not the number of people using public transport.

⁸ ARTA reports that the number of people using the rail network on an average weekday increased by 20% over the previous year. The majority of this growth has been during the peak period, while weekend travel has held steady at previous levels. The greatest growth has been observed on southern and eastern line services. Much of the patronage growth followed the introduction of a new timetable that was implemented in February 2005 at the conclusion of the Stage 1 double tracking works. Included in the improvements were additional services to/from New Lynn and to/from Otahuhu operating via the Eastern line.

Conclusion

This report presents a diverse picture of the direction of the Auckland Region's development. Some changes are related to land use and growth. Others are more related to wider social, demographic, economic and cultural changes within New Zealand society as a whole. There are a number of positive trends, including:

- unemployment is decreasing
- increasing numbers of people are using public transport
- petrol consumption may be declining
- crime levels appear to be relatively constant in terms of the percentage of population
- size and value of commercial floor-space has increased
- population density is increasing
- many initiatives underway to improve urban design
- residents are largely satisfied with their neighbourhoods and change in their neighbourhoods.
- bird populations are responding to possum control

However, there are also continuing problems and negative trends –

- stream water quality is poor in most urban environments
- fuel use, especially diesel is rising
- home ownership rates are declining and the region's housing is becoming less affordable
- average journey to work is increasing
- there are significant exceedences in air quality target and the national environmental standards may be difficult to meet (especially for P₁₀)
- significant pressure on coastal environment from urban development and there is pressure to release more coastal marine areas for marine farming

A substantial portion of the RGS monitoring relies on Census data. The results of the latest census will start becoming available in late December 2006, and will be included in an update of this report early next year. A review of the RGS indicators will also be conducted, and these results will be incorporated into future reports.