





# BAY OF PLENTY 2 0 1 1

# **REGIONAL TRENDS**

Bay of Plenty Regional Council November 2011





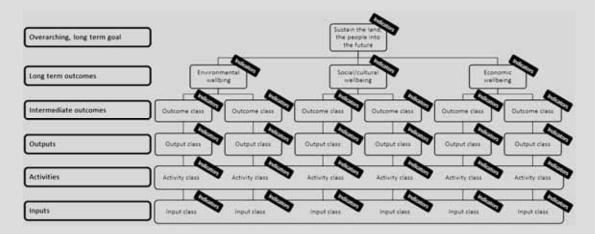




# PURPOSE

This report gives a detailed statistical portrait of the Bay of Plenty. It shows the region's strengths and weaknesses and creates a benchmark to compare against from this point forward.

The report is an important step in the development of the Sustainability Performance Framework. It provides the top layer of indicators of how well the region is achieving its long term goals and outcomes.



The numbers are at the heart of *Bay of Plenty 2011: Regional Trends*. They tell a complex story about jobs and the economy, the environment, education, culture and heritage, transport, health and welfare, and crime and safety.

The data has been drawn from a wide range of existing internal and external sources. This goes to show that a meaningful set of indicators doesn't necessarily require additional measuring and reporting activities.

The development of the Sustainability Performance Framework doesn't end with this report. The next step is to finish work on an 'outcomes and indicator hierarchy'. This will be a conceptual model — but also a monitoring framework — to capture how the council's various actions and programmes work directly and indirectly towards the region's long term goals.

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# **EXECUTIVE SUMMARY**

The statistics in this report show that the Bay of Plenty as a region is generally moving in the right direction. But in many areas there is still a lot of ground to make up.

#### Demography

Demographically the Bay of Plenty is unique with one of the largest Māori populations in the country. The region has a high percentage of residents in their retirement years and a low percentage of young working age residents. The region is growing by around 3000 people each year, mostly in the western districts. In the next 20 years, this growth looks set to continue at the second fastest rate in the country. At the same time, there is a concern that as the overall population increases, smaller areas in the eastern districts might be left behind.

#### **Economy**

The region's economy, like the rest of the country, has been affected by the recent recession. Unemployment has been up, and job numbers and building consents down. While there has been a rebound in job numbers and building consents, unemployment has continued to rise and at a faster rate than the national average. Bay of Plenty has experienced a large increase in median household income throughout the 2000s, surpassing the national median in 2010. However, housing became less affordable throughout the region in the same period.

#### **Living conditions**

In 2006, one in five residents were living in low income households and one in ten residents were living in crowded housing. Only four regions score worse on these living conditions indicators. Future surveys and censuses will show whether the increase in median household income translates to fewer residents living in these difficult conditions.

#### **Education**

There has been positive movement in education rates, but the region still lags behind the national level. The proportion of school leavers with university entrance qualifications has risen steadily but continues to lag behind the national average. Also up is the share of adults with tertiary qualifications, although this number is still markedly below the national average. There are significant ethnic disparities with Māori and Pacific Island students not achieving as well as their Asian and European

counterparts. One education statistic where the Bay of Plenty is doing well is time spent by under fives in early childhood education, second only to Auckland.

#### **Environment**

Bay of Plenty's environment is generally maintaining its current state despite increasing pressure from the region's urban areas, agricultural land and developments. Most lakes, rivers and coastal areas are maintaining or declining in quality due to sedimentation and contamination. Air quality issues remain isolated to Rotorua's urban area, which is, however, considered the worst for air quality in the North Island. Soils are in decent health, with most issues arising in dairy land, and some issues with sheep/beef, deer and kiwifruit sites.

#### **Crime and safety**

Progress is varied for crime and safety data. In the ten years to 2010 criminal offences decreased, but Bay of Plenty remains third highest in the country for criminal offences per capita. Serious assaults per capita almost doubled in this time, a very concerning statistic. The positive news is that the region's roads are some of the safest in the country.

#### **Transport**

Transport data showed some interesting results. While total vehicle kilometres are on the rise, vehicle ownership per capita actually decreased in 2009 and 2010. Public transport figures show that of New Zealand's 12 largest centres, Tauranga had by far the lowest proportion of public transport users, but also that these numbers have been going up fast in recent years.

#### Health

Most Bay of Plenty residents maintain a decent level of activity and rate their health as good or better than good. However, the region is facing some serious health and welfare issues with the forth-highest rate of teenage pregnancies in the country, a smoking rate well above the national average and an alarmingly high male suicide rate.

#### **Culture and heritage**

The culture and heritage of the Bay of Plenty is in a decent state. Three in ten Māori people in the region can speak Te Reo Māori, the second highest rate in the country. Recent surveys show that residents feel that Māori culture is recognised and respected in the region, that the region has a culturally diverse arts scene and that the unique characteristics of local areas are being maintained.





The Bay of Plenty has grown by 44,500 people since 1996. This is a growth rate of 1.3 per cent per year. The western districts account for the majority of this growth, while the eastern districts had little or negative growth. Growth in the region looks set to continue, with the Bay of Plenty projected to grow at the second fastest rate in the country to 2031.

While the overall population has grown, the ethnic makeup of the region has changed very little. The Bay of Plenty continues to have a large Māori population, proportionally only smaller than Gisborne and Northland. The Asian population has grown significantly over the last 10 years, but still only accounts for four per cent of the population.

The age profile of residents is a concern for the Bay of Plenty. The region has a low percentage of young working age residents and a high percentage of retirement age residents compared to the national average.

The 2006 census found that one in five Bay of Plenty residents were living in low income households. This is higher than the national average. However, the outlook could be looking up for low income households.

The region's median weekly household income surpassed the New Zealand median for the first time in 2010. Therefore there's a chance that the next census will show a decline in the number of Bay of Plenty residents living in low income households.

In the Regional Council's latest Community Outcomes survey, most Bay of Plenty residents said they have a sense of pride in their area and feel they can have an impact on making the community a better place. This indicates that residents are more likely to take responsibility for their area, create strong social networks and be more willing to take part in community decision making processes.

Median weekly household income	\$1240
Meidan hourly wage rate	\$17.90
Per cent living in hardship	21%
Life expectancy	
• Male	77.1 years
• Females	81.9 years
Number of lakes with	
<ul> <li>Improving water quality</li> </ul>	3
<ul> <li>Stable water quality</li> </ul>	6
<ul> <li>Deteriorating water quality</li> </ul>	3
Number of serious assaults	1,368
Number of vehicles	234,976
Per cent of residents who	
<ul> <li>Have a sense of pride in the region</li> </ul>	79%
<ul> <li>Feel the natural environment is improving</li> </ul>	40%
	• Feel the natural environment is

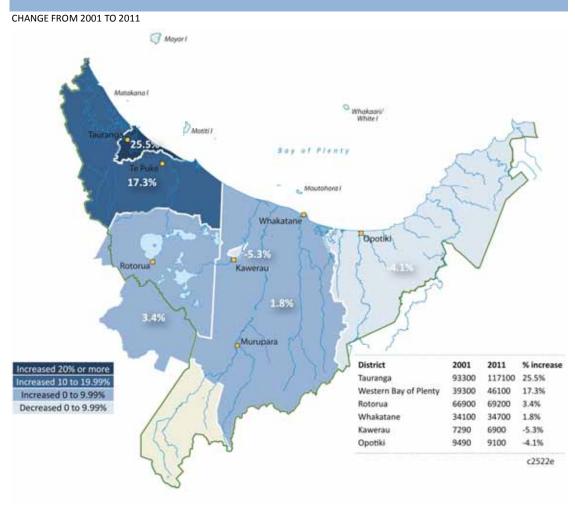
# 1.2 HOW THE POPULATION HAS CHANGED

	2001		2011		Change	
	TOTAL	PER CENT	TOTAL	PER CENT	TOTAL	CHANGE
European or Other	191,500	78.6%	216,800	77.5%	25,300	-0.1%
Māori	71,000	28.8%	77,800	27.8%	6,800	-1.0%
Asian	5,800	2.4%	11,100	4.0%	5,300	+1.6%
Pacific	6,100	2.5%	8,700	3.1%	2,600	+0.6%

NOTE: FIGURES DO NOT EQUAL 100% AS RESPONDENTS WERE ABLE TO IDENTIFY WITH MORE THAN ONE ETHNIC GROUP

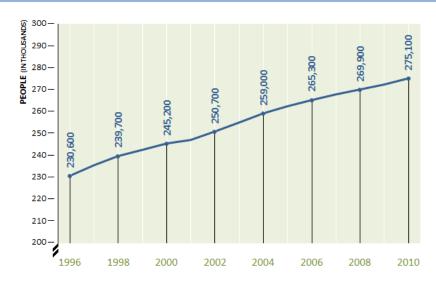
In the last decade, the ethnic makeup of the Bay of Plenty has changed very little. Although there was a decrease in the proportion of Māori residents, the Bay of Plenty still has a large Māori population, exceeded proportionally only by Gisborne and Northland. The Asian population almost doubled in the 10 years to 2011, but still only makes up four per cent of the region's population.

# 1.3 CHANGE IN POPULATION BY DISTRICT



Between 2001 and 2011 the Bay of Plenty population increased by 13.1 per cent. Tauranga city experienced the largest growth with a population increase of 25.5 per cent, while the Western Bay of Plenty increased by 17.3 per cent. Kawerau and  $\bar{\text{O}}\text{potiki}$  both experienced negative growth of 5.3 per cent and 4.1 per cent respectively. The population of the Rotorua and Whakatāne districts remained stable.

# 1.4 BAY OF PLENTY POPULATION



Over the last 15 years the Bay of Plenty's population has increased by 44,500 people, or 1.3 per cent per year. Tauranga and Western Bay of Plenty accounted for the majority of this growth. Kawerau and Ōpōtiki both experienced negative growth. The Bay of Plenty population is expected to grow at a rate of 1.2 per cent per year to 2031, the second fastest rate in the country.

SOURCE: STATISTICS NEW ZEALAND

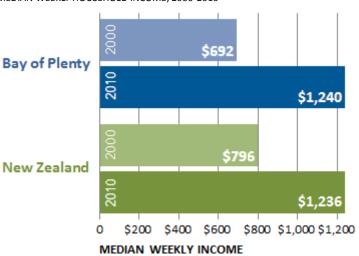
## 1.5 AGE PROFILE

	Between 25 and 34	Age 65 and over
Northland	9.2%	16.3%
Auckland	15.1%	10.5%
Waikato	12.1%	13.7%
Bay of Plenty	10.6%	16.1%
Gisborne	11.0%	12.6%
Hawke's Bay	10.3%	15.3%
Taranaki	11.1%	16.0%
Manawatu-Wanganui	11.1%	15.5%
Wellington	14.4%	12.4%
Tasman	9.0%	16.1%
Nelson	10.8%	15.5%
Marlborough	10.5%	18.8%
West Coast	10.5%	15.7%
Canterbury	12.0%	14.8%
Otago	13.1%	14.6%
Southland	12.0%	15.2%
New Zealand	13.0%	13.2%

Like many other OECD countries, New Zealand is facing an increasing old age dependency ratio. Ideally, a nation or region would have a relatively low percentage of the population at retirement age and a relatively high percentage of young adults. Bay of Plenty is not well placed in this area, with a lower than national percentage of residents aged 25-34 and a higher than national percentage of residents aged 65 and over.

# 1.6 HOUSEHOLD INCOME OVER TIME

MEDIAN WEEKLY HOUSEHOLD INCOME, 2000-2010



In 2010 the median household income in the Bay of Plenty surpassed the New Zealand median for the first time, increasing by 79 per cent since 2000 against a national increase of only 55 per cent. A higher household income can help families meet their everyday needs and improve quality of life.

SOURCE: NEW ZEALAND INCOME SURVEY

#### 1.7 HOUSEHOLD INCOME BY REGION

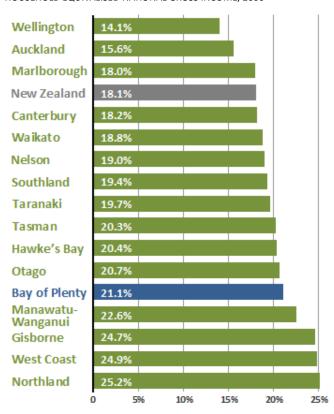
MEDIAN WEEKLY HOUSEHOLD INCOME, 2010



The Bay of Plenty ranks fifth against New Zealand regions for median weekly household income, below only Wellington, Otago, Auckland and Canterbury. This is a positive turnaround from 10 years earlier when the Bay ranked eighth and sat well below the New Zealand average.

## 1.8 LOW INCOME HOUSEHOLDS

PROPORTION OF RESIDENTS LIVING IN HOUSEHOLDS WITH REAL GROSS INCOME LESS THAN 60 PER CENT OF THE MEDIAN HOUSEHOLD EQUIVALISED NATIONAL GROSS INCOME, 2006



Among New Zealand's 16 regions, Bay of Plenty has the fifth-highest proportion of residents living in low income households. In national comparisons, low income households are defined as those with income below 60 per cent of the national household median income. Having low incomes can restrict people's quality of life and limit their ability to participate in and belong to their community. Long-lasting low family income in childhood can lead to lower educational attainment and poorer health.

SOURCE: STATISTICS NEW ZEALAND

#### 1.9 POLL RESULTS

Do you have a sense of pride in the look and feel of your local area?

YES	79%
INDIFFERENT	13%
NO	8%
DON'T KNOW	0%

Do you think you can have an impact on making your community a better place?

YES	81%
INDIFFERENT	8%
NO	10%
DON'T KNOW	2%

The large majority of Bay of Plenty residents have a sense of pride in their area. Residents that have a sense of pride in their community tend to take more responsibility for their area, create strong social networks and be more willing to help out in volunteer groups etc. Most Bay of Plenty residents also believe they can have an impact on making the community a better place. It is very important that people are able to take part in and have influence on decisions that affect their community.





Like the rest of the country, the Bay of Plenty didn't escape the 2008/2009 recession. Unemployment rates rose at a faster rate than the national average and now sit at 7.9 per cent. The number of residents out of work or not looking for work is at the second highest level in the country and the median hourly wage rate is now the lowest in the country.

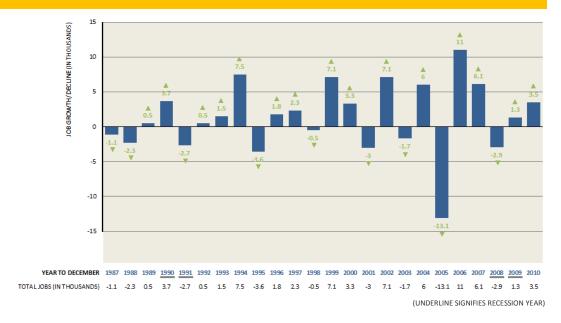
There have been employment changes in different sectors over the last decade. The education and health sector was strong through the 2000s, adding nearly 6,000 jobs. The retail and wholesale trade, agriculture, forestry and fishing and administration sectors grew, while the manufacturing and transport services sectors both declined.

There has been slow growth in domestic and international tourist numbers. It is projected that the number of international visitors will continue to grow while the number of domestic visitors will remain steady. International tourists are generally sought after as they inject more money into the local economy.

The residential building sector was already in decline before the recession. After 2008 things got worse with new dwelling consents dropping below 1000 per year for the first time since 1991. It is also becoming less affordable to purchase a home throughout the Bay of Plenty, especially in western parts of the region.

Working conditions in the Bay of Plenty are improving with Tauranga residents having the second highest rate of satisfaction with their work-life balance amongst New Zealand's major centres. The region also recorded a decrease in work-related injuries per employee compared to 2002.

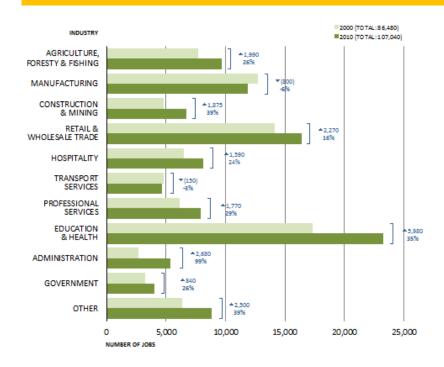
#### 2.1 BAY OF PLENTY JOB GROWTH AND DECLINE



Job numbers declined during the country's recent recession, losing around 3000 jobs in 2008, but making up the lost ground through 2009 and 2010. Nationally there was no drop in job numbers through the recession.

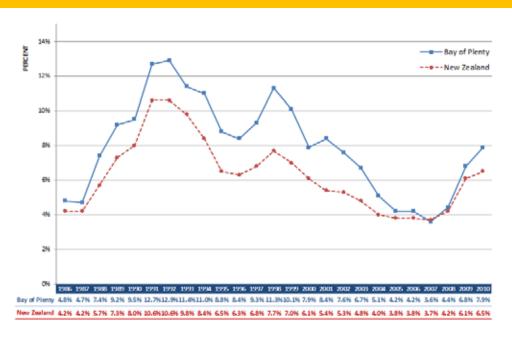
SOURCE: STATISTICS NEW ZEALAND

#### 2.2 IOB GROWTH AND DECLINE BY SECTOR



Over the last decade, the education and health services sector has been the strongest feature in Bay of Plenty's employment landscape with a gain of 5,980 jobs. All other sectors grew in size except the manufacturing and transport services sectors, which decreased by 6 per cent and 3 per cent respectively.

#### 2.3 UNEMPLOYMENT RATE

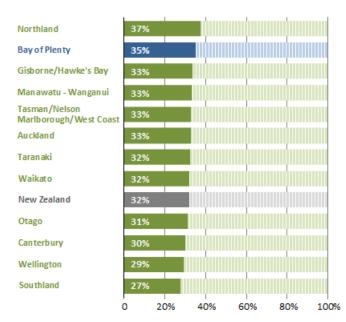


With the exception of 2007, unemployment rates for Bay of Plenty have always been above the national average. While total job numbers are at their highest point ever, unemployment rates have been rising over the last three years due to a rapidly increasing working age population.

SOURCE: STATISTICS NEW ZEALAND

#### 2.4 POPULATION NOT IN THE LABOUR FORCE

AS AT DECEMBER 2010 USING RESIDENTS 15 AND OVER

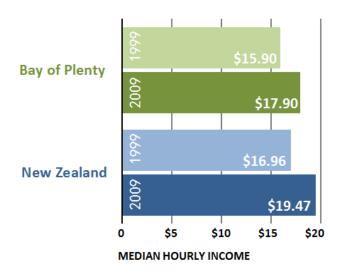


The labour force participation rate looks at the extent of the workingage population that is economically active (either working or looking for work). Those not in the labour force are either unable to work or not looking for a job.

Bay of Plenty has a large percentage of residents not in the labour force, second only to Northland. A high percentage of adults not in the labour force can hold back regional economic growth potential.

#### 2.5 WAGE RATES

BAY OF PLENTY VERSUS THE NATIONAL AVERAGE



At \$17.90, Bay of Plenty residents are paid the lowest median hourly wage rate in New Zealand.

A relatively low increase of 13 per cent since 1999 and a low starting point has caused the region to drop to last place.

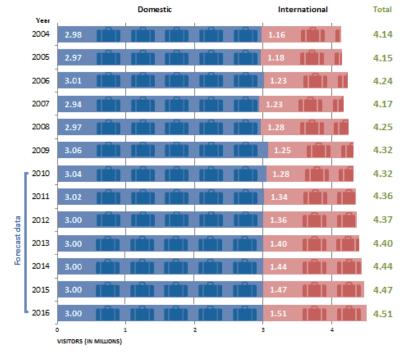
SOURCE: NEW ZEALAND INCOME SURVEY

#### 2 6 MILLIONS OF VISITOR NIGHTS

TO THE BAY OF PLENTY

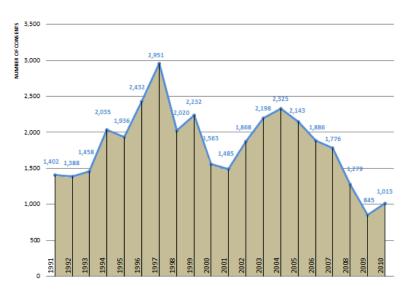
Tourism is an important part of Bay of Plenty's economy with visitors spending an estimated \$435 million in 2009. This figure is expected to rise to nearly \$500 million by 2016. In the five years to December 2009, total visitor numbers increased by 4.2 per cent. While domestic tourist visitor nights fluctuated, international visitor nights steadily increased; a trend expected to continue.

SOURCE: MINISTRY OF ECONOMIC DEVELOPMENT



#### 2.7 BUILDING CONSENTS ISSUED

FOR NEW DWELLINGS ACROSS THE BAY OF PLENTY



The number of new dwelling consents issued had already been in decline before the recession hit in 2008. In 2009 numbers fell below 1,000 for the first time since 1991, before rebounding slightly in 2010. In 2010, the total cost of new dwelling construction in the Bay of Plenty was estimated at \$280,000,000.

SOURCE: STATISTICS NEW ZEALAND

#### 2 & HOUSING AFFORDARILITY

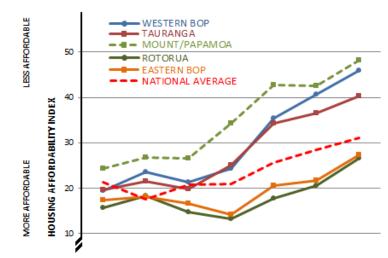
AVERAGE HOUSEHOLD INCOME COMPARED WITH MORTGAGE COST OF MEDIAN DWELLING PRICE, ACROSS BAY OF PLENTY DISTRICTS

High housing costs relative to household income is mainly a problem for low income households.

Housing is getting less affordable across all districts in the Bay of Plenty. Housing in the western districts is less affordable than the national average.

Housing in Rotorua and the Eastern Bay of Plenty subregion has typically been more affordable than the national average. This gap has been closing in recent years.

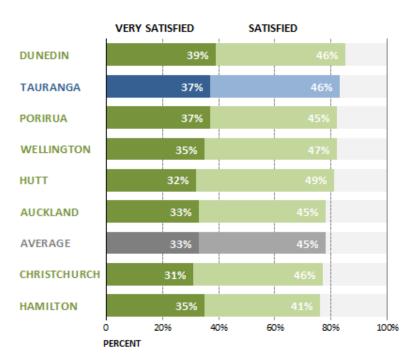
SOURCE: STATISTICS NEW ZEALAND,
RESERVE BANK, REINZ



	2001	2002	2003	2004	2005	2006	2007
Western BOP	19.4	23.7	21.4	24.3	35.4	40.8	46.0
Tauranga	19.6	21.6	19.8	25.1	34.4	36.6	40.3
Mount/Pā pā moa	24.3	26.8	26.7	34.3	42.8	42.6	48.3
Rotorua	15.7	18.4	14.9	13.3	17.7	20.7	26.6
Eastern BOP	17.3	18.1	16.7	14.3	20.7	21.8	27.4
National Average	21.4	17.6	20.8	21.0	25.6	28.4	31.2

#### $\it 2.9$ SATISFACTION WITH WORK-LIFE BALANCE

PERCENTAGE OF EMPLOYED PEOPLE WHO WERE SATISFIED WITH THEIR WORK-LIFE BALANCE, 2010

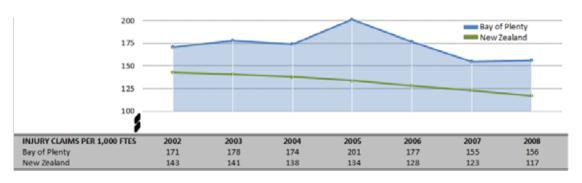


Striking a balance between work and life is essential to avoid stress related mental and physical health problems. Too much work also takes time away from family, friends, community and personal leisure. Fortunately, more Tauranga residents are satisfied with their work-life balance than residents in any other major centre besides Dunedin.

SOURCE: QUALITY OF LIFE SURVEY

#### 2.10 WORK-RELATED INJURY CLAIMS

NUMBER OF WORK-RELATED ACCIDENT INSURANCE CLAIMS PER 1,000 FULL-TIME EQUIVALENT EMPLOYEES, 2008



Work-related injuries place stress on the employee and costs the society millions of dollars every year. The level of work-related injuries is one indicator of the quality of the workplace. While the Bay of Plenty has seen a decrease in the number of work-related insurance claims per employee since 2005, numbers are still the third highest of all regions and well above the national average.





Quality of life and economic well-being in the Bay of Plenty is dependent on the region's natural and physical resources, such as the coastline, soils, rivers, lakes and air. At the same time, the desire to continually develop and grow means that many parts of the environment are under constant pressure. The areas under most stress are intensive farmland and areas around urban centres.

The majority of the 12 Rotorua/Te Arawa lakes have shown little change in water quality over the last five years, with only one lake significantly deteriorated in quality. All 12 lakes are yet to meet their water quality target.

Bathing sites in the Bay of Plenty generally meet recreational guidelines with some river sites impacted by rainfall and some lake sites affected by seasonal algal blooms.

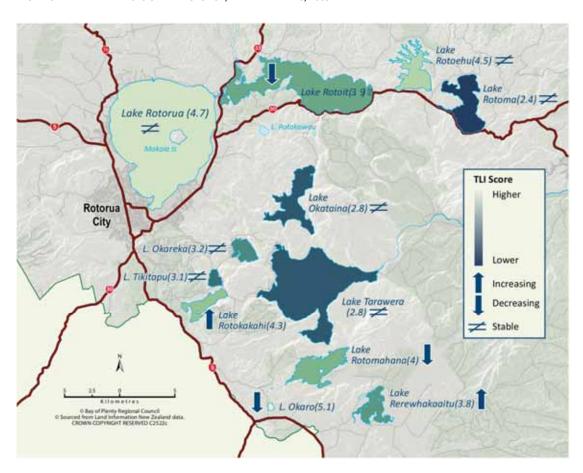
Soils in the region generally test within the provisional targets set by Landcare Research New Zealand. Some measures indicate problems with nutrient leaching into the region's waterways from dairy, sheep/beef, deer and kiwifruit sites.

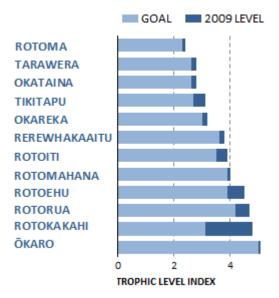
Air quality is generally good across the region except in the Rotorua urban area where air pollution levels during winter are considered the worst in the North Island.

The region's significant natural areas require protection. 90 per cent of these areas have less than half of their land area protected and many areas are not protected at all. Bay of Plenty residents mostly view the natural environment to be in good condition, but express some concern that it may be trending in the wrong direction.

## 3.1 LAKE WATER QUALITY

TROPHIC LEVEL INDEX VALUES OF THE ROTORUA/TE ARAWA LAKES, 2009

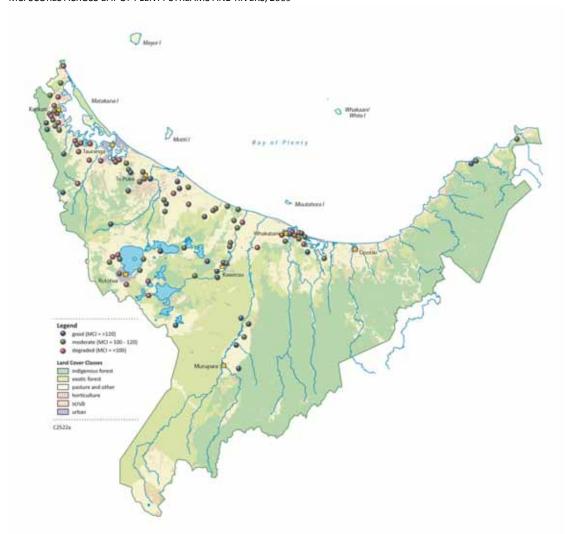




The Rotorua/Te Arawa Lakes are a treasured asset in the Bay of Plenty, providing economic benefits as well as having important ecological, recreational, aesthetic and cultural values. A key indicator of the health of a lake is the Trophic Level Index (TLI). Target TLIs have been set for all the Rotorua/Te Arawa Lakes. Currently, the TLI for all lakes are higher than the target set, indicating improvements in water quality is required. Since 2004, the TLI for three lakes improved, seven remained stable and two deteriorated.

## 3.2 ECOLOGICAL HEALTH OF STREAMS

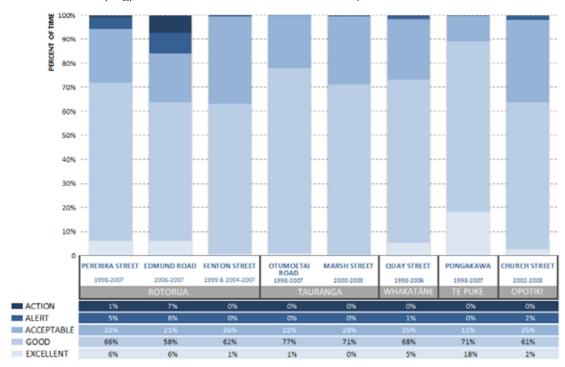
MCI SCORES ACROSS BAY OF PLENTY STREAMS AND RIVERS, 2009



Like our lakes, so do rivers and streams in the Bay of Plenty serve a variety of purposes, such as water supply, waste disposal, irrigation, frost protection and hydropower-generation. They also provide significant ecological services and are culturally, aesthetically and recreationally significant. The Macroinvertebrate Index (MCI) provides a broad measure of water quality in rivers and streams. The MCI identifies the ecological health of streams through the monitoring of insects and other invertebrates. In 2009, 29 Bay of Plenty monitoring sites were considered to be in good health, 39 sites in moderate health and 29 sites degraded. Most degraded sites are in catchments with land uses dominated by pasture or urban environments.

#### 3.3 AIR QUALITY

PARTICULATE MATTER ( $PM_{10}$ ) LEVELS ACROSS BAY OF PLENTY MONITORING SITES, HOURLY DATA

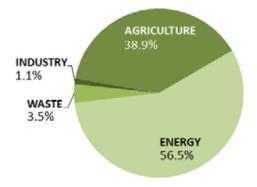


Small particles in the air are a risk to people's health.  $PM_{10}$  particles (particles small enough to enter human lungs) pose the greatest risk and come mainly from domestic heating and some industries.  $PM_{10}$  levels across the Bay of Plenty are acceptable most of the time, except in Rotorua where urban air quality has been at unsafe levels around eight per cent of the time. This is considered to be the worst air quality in the North Island and something that the region continues to work on. Results are particularly bad during the winter months when residents are warming their homes with wood burners.

SOURCE: BAY OF PLENTY REGIONAL COUNCIL

## 3.4 EMISSIONS PROFILE

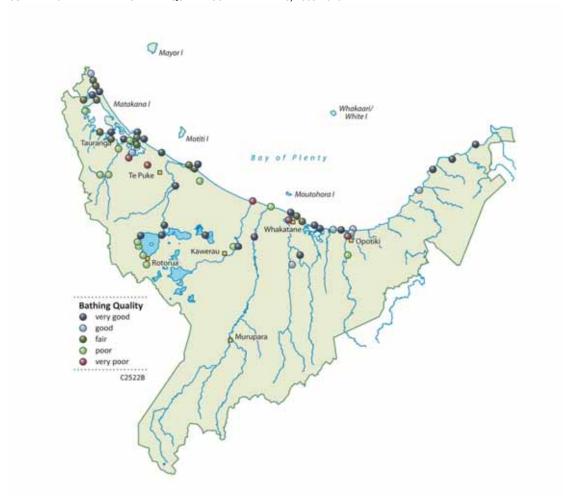
GREENHOUSE GAS EMISSIONS PROFILE FOR THE BAY OF PLENTY, 2004



The energy and agricultural sectors dominate the Bay of Plenty's greenhouse gas emissions profile. The national profile has a greater proportion of agricultural emissions (49 per cent) and less energy emissions (43 per cent).

## 3.5 BATHING WATER QUALITY

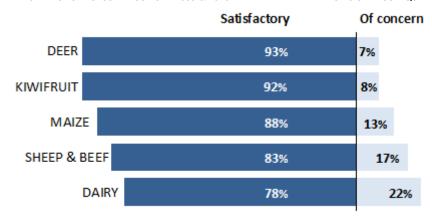
COMPLIANCE WITH BATHING WATER QUALITY GUIDELINE LEVELS, 2005-2010



It is important that Bay of Plenty residents can enjoy the recreational qualities of the region's many water bodies. Central Government has set guideline levels for E. coli in bathing water to ensure there is a low health risk to bathers. Elevated levels of E. coli indicate that other harmful microorganisms could be present. Between 2005 and 2010, E. coli levels at 49 per cent of Bay of Plenty monitoring sites were considered good or very good. The five sites considered to have very poor bathing water quality were Waioeka River, Whakatāne River, Greerton Park, Kaiate Stream and Tarawera River Mouth.

## 3.6 SOIL HEALTH

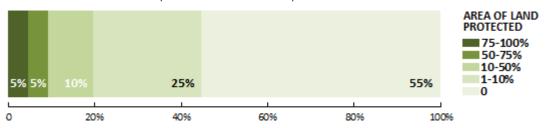
PERCENTAGE OF TOPSOIL RESULTS IN 2009 & 2010 THAT WERE WITHIN PROVISIONAL SOIL QUALITY TARGETS



Changes in the topsoil quality of various land uses were monitored over a 10-year period in the Bay of Plenty. Results indicate that many of the topsoil quality indicators were being maintained and were within provisional target values set by Landcare Research New Zealand. Of concern is the high level of nitrogen exports from sheep/beef, deer and dairy sites that can lead to nitrate leaching into the region's waterways. Kiwifruit orchards and dairy sites also had an increasing trend in phosphate values that can lead to pollution in waterways.

#### 3.7 PROTECTION OF SIGNIFICANT AREAS

PERCENTAGE OF CATEGORY 1 SITES (SIGNIFICANT NATURAL AREAS) PROTECTED BY AREA



Councils are able to identify sites that are considered to be of great benefit to the region and protect them in their plans and policies. Category 1 sites are considered to be the most important. The Bay of Plenty has 173 Category 1 sites on private land. Only 16 of these sites have more than half of their land area protected. Even more concerning is that 55 per cent of Category 1 sites have no protection at all. It is important that these sites are protected for the benefit and enjoyment of the region into the future.

SOURCE: BAY OF PLENTY REGIONAL COUNCIL

#### 3.8 POLL RESULTS

# Overall what do you think is happening to the natural environment?

IMPROVING	40%
STAYING THE SAME	39%
BECOMING WORSE	19%
DON'T KNOW	3%

# How would you rate the state of the natural environment?

GOOD/VERY GOOD	84%
NEITHER GOOD OR BAD	11%
POOR/VERY POOR	4%
DON'T KNOW	1%

Most Bay of Plenty residents feel the natural environment is either improving or staying the same (79 per cent). This is a positive change to poll results in 2000, where 66 per cent of residents felt the environment was improving or staying the same. Residents overwhelmingly feel that the natural environment is in good or very good condition (84 per cent). Again, this is an improvement on poll results in 2000, where 53 per cent of residents felt the state of the environment was in good or very good condition.



# **EDUCATION**



Education helps people reach their potential and make better life choices. This benefits both the individual and society as a whole.

Bay of Plenty's education statistics indicate that we have come a long way, but also that there is still much to be done.

In 2010, Bay of Plenty children aged five and under received more early childhood education per week than all other regions in New Zealand besides Auckland.

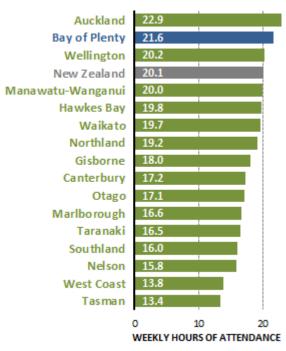
While literacy and numeracy levels of Year 11 students increased in the early 2000's, they have since plateaued. The percentage of the adult population with some form of secondary school qualification increases year after year and remains in line with the national average.

Unfortunately the Bay of Plenty is falling behind in several key areas. The proportion of students leaving school with university entrance qualifications is below the national average and has large ethnic disparities. Māori and Pacific Island people fall behind Asian, European and other ethnicities. The relatively low percentage of adults with a bachelor's degree or higher is also a concern, with the region consistently falling below the national average and even declining for the last two years.

## **EDUCATION**

#### 4.1 EARLY CHILDHOOD EDUCATION

AVERAGE WEEKLY HOURS OF ATTENDANCE IN LICENSED EARLY CHILDHOOD SERVICES, 2010



Children in the Bay of Plenty receive an average of over 21 hours of early childhood education per week, the second highest rate in the country. High quality early childhood education can have a positive, long-lasting effect on numeracy, problem solving and social competencies in teenagers. The availability of early childhood education can also have a positive effect on labour force participation rates

SOURCE: MINISTRY OF EDUCATION

#### 4 2 LITERACY AND NUMERACY

STUDENTS MEETING LITERACY AND NUMERACY REQUIREMENTS FOR NCEA LEVEL 1 BY END OF YEAR 11

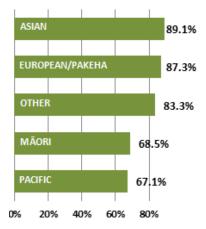


Literacy and numeracy skills of Bay of Plenty Year 11 students have moved upwards in the five years to 2009. Furthermore, Bay of Plenty is consistently above the national average on both indicators. The largest gains were made between 2004 and 2006. Numbers have since plateaued.

SOURCE: MINISTRY OF EDUCATION

#### 4.3 LITERACY AND NUMERACY BY ETHNICITY

STUDENTS MEETING BOTH LITERACY AND NUMERACY REQUIREMENTS FOR NCEA LEVEL 1 BY END OF YEAR 11 IN 2009

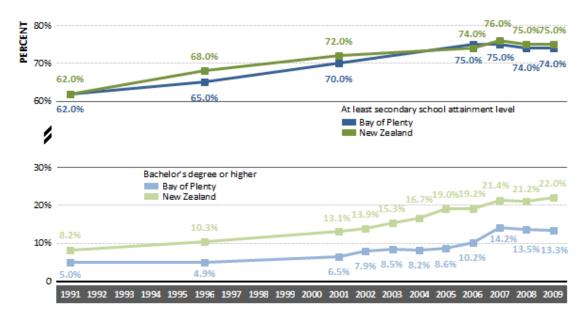


Pacific Island and Māori students are underperforming in the Bay of Plenty. At the completion of Year 11 only 67 per cent of Pacific Island students and 69 per cent of Māori students met both the literacy and numeracy requirements for NCEA level 1. Asian, European/Pākehā and 'Other' ethnic groups all achieved at least an 80 per cent pass rate. While this is not a new or unique problem to the Bay of Plenty, it is nevertheless an important problem to solve. A lack of basic literacy and numeracy skills limits choices and increases the risk of welfare dependency later in life.

SOURCE: MINISTRY OF EDUCATION

#### 4.4 FDUCATIONAL ATTAINMENT OF ADULTS

PROPORTION OF ADULTS AGED 25-64 WITH NCEA LEVEL 1 (OR ITS PREDECESSOR, SCHOOL CERTIFICATE) OR HIGHER, AND PROPORTION OF ADULTS AGED 25-64 WITH A BACHELOR'S DEGREE OR HIGHER



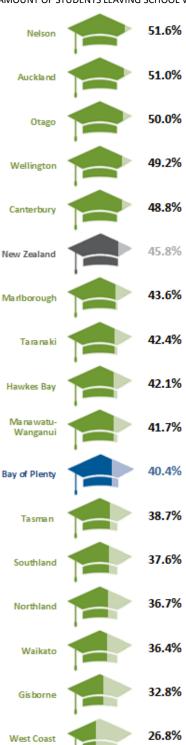
Educational attainment helps individuals participate in society. A region's educational profile is also an important indicator of its human capital. The ability to develop, attract and retain human capital is crucial for a region to achieve its economic development potential.

Over the past two decades, Bay of Plenty residents have fallen just below the national average for secondary school qualifications every year except for 2006. For tertiary qualifications, Bay of Plenty residents have been markedly below the national average over the last two decades. This gap in tertiary qualifications is a challenge for the Bay of Plenty, especially considering that the last two years has seen the margin increase.

## **EDUCATION**

#### $4.5\,$ UNIVERSITY ENTRANCE

AMOUNT OF STUDENTS LEAVING SCHOOL WITH UNIVERSITY ENTRANCE QUALIFICATIONS, 2009

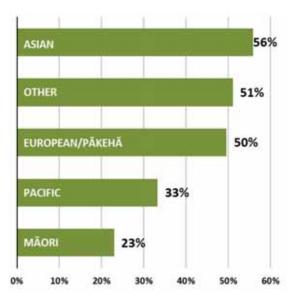


Only 40 per cent of Bay of Plenty school leavers in 2009 had the option of moving directly into university study, markedly below the national average of 46 per cent. This gap in school leaver qualifications is part of the reason why the Bay of Plenty is lagging behind on tertiary qualifications, (see section 4.4 above).

SOURCE: MINISTRY OF EDUCATION

# 4.6 UNIVERSITY ENTRANCE BY ETHNICITY

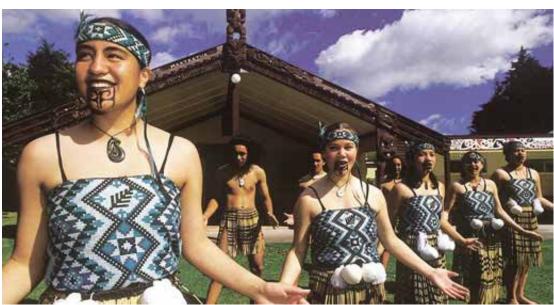
SCHOOL LEAVERS WITH UNIVERSITY ENTRANCE, 2009



There are major ethnic disparities in school leavers with university entrance, with Māori and Pacific Island students extremely under represented. Having the option of moving straight into university studies lessens the barriers to further education and can help improve the quality of life in later years.

SOURCE: MINISTRY OF EDUCATION





Cultural well-being is about participation in recreation, creative and cultural activities, and the freedom of communities to retain, interpret and express their arts, history, heritage and traditions.

The Bay of Plenty has strong cultural ties to the past, with three of the seven original Māori waka landing in the region around 1000 years ago. Today Māori make up 28 per cent of the population in the Bay of Plenty, nearly double the national average of 15 per cent.

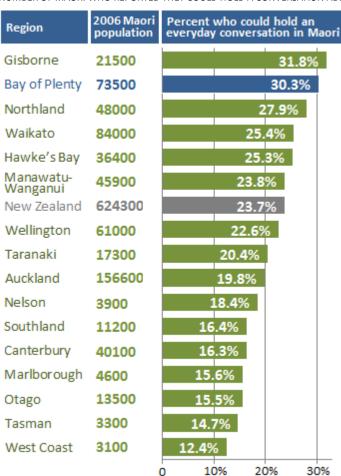
Māori consider their language, Te Reo Māori, as taonga ('treasured thing'). Te Reo Māori is very important for Māori to hold on to their culture and to ensure that future generations can maintain a link to their past. The last census showed that over 30 per cent of Māori in the region were able to speak Te Reo Māori, the second highest rate in the country. The general community also strongly believe that Māori culture is recognised and respected in the region.

The cultural makeup of Bay of Plenty is evolving, with growing European, Asian and Pacific Island populations. Most residents believe that increasing cultural diversity has either no impact on the community, or makes it a better place to live.

There is only little data on arts and heritage in the Bay of Plenty. Most residents believe the region has a culturally diverse arts scene and that the unique characteristics of their local areas are being maintained. However, a 2007 study found that, in general, the region was not doing a great job of protecting its historic buildings and sites.

#### 5.1 MĀORI LANGUAGE SPEAKERS

NUMBER OF MĀORI WHO REPORTED THEY COULD HOLD A CONVERSATION ABOUT EVERYDAY THINGS IN TE REO MĀORI, 2006



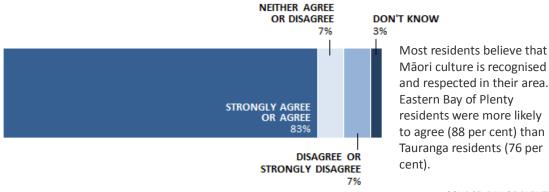
Te Reo Māori is the language of the Māori people and an official language of New Zealand. Ensuring the survival of Te Reo Māori will help future generations of Māori maintain links to the past and hold onto their culture.

Bay of Plenty Māori are very proficient in speaking Te Reo Māori when compared with other regions. Over 30 per cent are able to hold a conversation in Te Reo Māori, bettered only by Gisborne. While there has been an increase in support and improved attitude towards Te Reo Māori in recent times, most experts agree that the language is still in a perilous state and warn against complacency.

SOURCE: STATISTICS NEW ZEALAND

#### 5.2 PROTECTION OF MĀORI CULTURE

ATTITUDES OF RESIDENTS WHEN ASKED WHETHER THE COMMUNITY RECOGNISES AND RESPECTS MĀORI CULTURE, 2010



## 5.3 IMPACT OF CULTURAL DIVERSITY

ATTITUDES OF RESIDENTS TOWARDS THE IMPACT OF INCREASING CULTURAL DIVERSITY IN THE BAY OF PLENTY, 2010

A BETTER PLACE TO LIVE 36%

populations. Residents from different countries and cultures bring with them a unique way of life.

When Bay of Plenty residents were asked what kind impact this increased cultural diversity has on the re-

%

When Bay of Plenty residents were asked what kind of impact this increased cultural diversity has on the region, the large majority stated that it made for a better place to live, or that it made no difference. Residents from Rotorua were more likely to state that different lifestyles and cultures from different countries made their area a better place to live (41 per cent) than those from Eastern Bay of Plenty (25 per cent).

The Bay of Plenty has a unique ethnic makeup, with a rapidly growing European population, a large proportion of Māori residents, and fast growing Asian and Pacific Island

Being open to other cultures and traditions helps to make the community a more interesting, vibrant and accepting place.

SOURCE: BAY OF PLENTY REGIONAL COUNCIL

# NO DIFFERENT 52% A WORSE PLACE TO LIVE 9% DON'T KNOW 3%

## 5.4 POLL RESULTS

# Do you feel your area has a culturally diverse arts scene?

AGREE	59%
NEITHER	12%
DISAGREE	16%
DON'T KNOW	14%

Most Bay of Plenty residents believe that there is a culturally diverse arts scene in the region. Rotorua residents are more likely to agree that their area has a culturally diverse arts scene than the rest of the region.

#### 5.5 PROTECTION OF HISTORIC PLACES

SCHEDULE OF HISTORIC AND ARCHEOLOGICAL HERITAGE						
	IDENTIFIED IN	DISTRICT PLANS	ADDITIONAL SIT			
	ARCHEOLOGICAL HISTORIC BUILDINGS SITES & STRUCTURE SITES		PLACES THAT SHOULD BE CONSIDERED FOR SCHEDULING	OTHER PLACES OF IMPORTANCE TO BE RECOGNISED		
Whakatāne	1367	54	12	167		
Ōpōtiki	0	17	29	38		
Rotorua	221	36	23	77		
Tauranga	12	31	9	102		
Western Bay of Plenty	44	44 24 no stu		tudy		
Kawerau	403	5	no s	tudy		

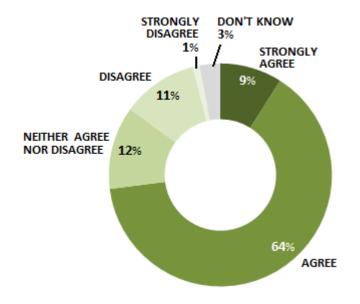
Historic buildings and sites combine to give people a sense of place, belonging and an intrinsic link to the past. Many buildings and sites within the Bay of Plenty have historical, cultural, spiritual, scientific or other special significance to both Māori and Europeans. Sites of historical and cultural value are also very important for tourism in the region. Local authorities have the power to protect heritage buildings and archaeological sites of significance though the District Planning process.

However, a 2007 study of most districts in the region found that there are many sites not identified for protection in the various district plans. By not protecting these buildings and sites, the region runs the risk of losing these buildings and sites. Many heritage authorities already believe heritage structures and archaeological sites are being damaged and destroyed by landowners and the public.

SOURCE: BAY OF PLENTY REGIONAL COUNCIL

#### 5.6 MAINTENANCE OF UNIQUE CHARACTERISTICS

ATTITUDES OF RESIDENTS ABOUT WHETHER THE UNIQUE CHARACTERISTICS OF THEIR AREA ARE BEING MAINTAINED, 2010



Almost three-quarters of Bay of Plenty residents agreed that the unique characteristics of their local town were being maintained. Rotorua residents were more likely to agree (85 per cent) than Tauranga residents (66 per cent).



# **TRANSPORT**



Bay of Plenty roads have the highest intensity of heavy vehicles in the country. The Port of Tauranga is one of the major contributors to this heavy vehicle traffic, with half of all exports to the port arriving by road.

For personal transportation, Bay of Plenty residents continue to choose private vehicles over public transport. The latest survey show only five per cent of Tauranga residents regularly take the bus to work, a substantially lower proportion than any other large centre in New Zealand. However, public transport passenger numbers have been increasing rapidly in later years.

Total vehicle kilometres travelled continues to rise, up 29 per cent in the last decade. The majority of this increase occurred between 2001 and 2005, with results relatively steady since then. The majority of travel occurs on state highways (57 per cent), with the remainder on local roads (43 per cent).

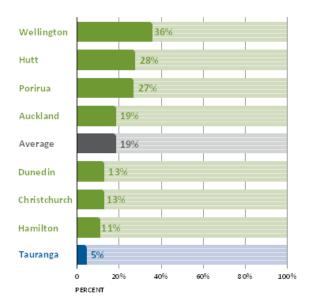
Vehicle ownership per capita decreased in 2009 and 2010. While data only goes back to 2001, it is likely that this would be the first time vehicle ownership per capita has decreased since cars were first introduced to the region.

Most residents agree that it's easy to get to where they want by walking (81 per cent). The result is not so strong for cycling, with just over half of all respondents agreeing it is easy to cycle to where they need to be.

Air traffic in the region steadily increases. In the four years to 2008, Tauranga airport experienced a 36 per cent increase in air traffic and Rotorua experienced a 29 per cent increase.

#### 6.1 PUBLIC TRANSPORT USF

PERCENTAGE OF POPULATION TAKING PUBLIC TRANSPORT TO WORK AT LEAST TWO TIMES PER WEEK, 2010

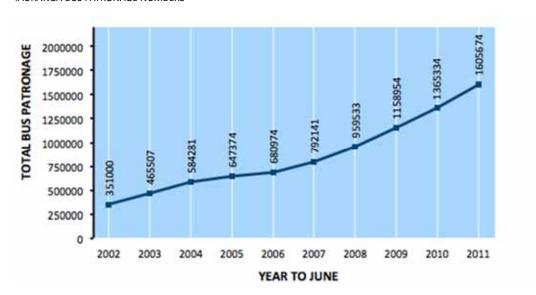


Only five per cent of Tauranga residents stated that they took public transport to work at least two times per week in 2010. This gives Tauranga the lowest public transport record across New Zealand's major centres, well below the second lowest, Hamilton.

SOURCE: QUALITY OF LIFE SURVEY

#### 6.2 PUBLIC TRANSPORT PATRONAGE

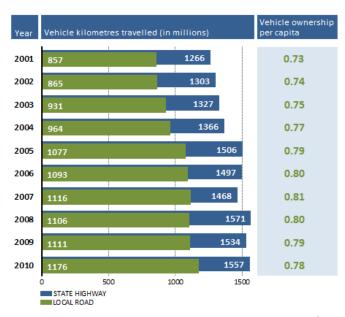
TAURANGA BUS PATRONAGE NUMBERS



Public transport patronage in Tauranga has been increasing rapidly, up more than 130 per cent in the five years to 2011. In the same period, passenger numbers across the region grew by 120 per cent, from 1.1 million to 2.5 million passengers. With Tauranga public transport usage being low compared to other major centres, there is no reason why this growth cannot continue.

#### 6.3 VEHICLE OWNERSHIP AND TRAVEL

VEHICLE OWNERSHIP PER CAPITA AND VEHICLE KILOMETRES TRAVELLED BY LOCAL ROAD AND STATE HIGHWAY



Total vehicle kilometres travelled throughout the Bay of Plenty increased rapidly through the early-to mid-2000s, before slowing to a more gradual increase later in the decade. It is interesting to note that vehicle ownership per capita decreased in 2009 and 2010, possibly for the first time since cars were introduced to the region in the early 1900s.

SOURCE: MINISTRY OF TRANSPORT

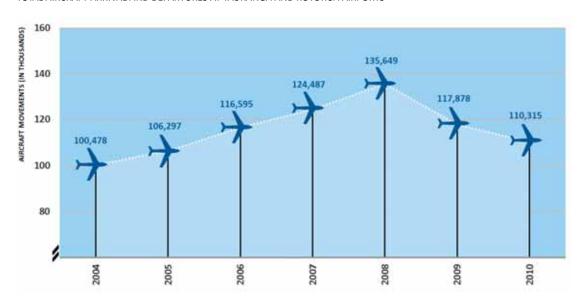
# 6.4 POLL RESULTS

You find it easy to get to the places you want:		You find the public buses:				
Walking	Cycling		Convenient	Comfortable	Affordable	Safe
81%	54%	AGREE	42%	44%	46%	53%
5%	6%	NEUTRAL	5%	3%	3%	2%
12%	16%	DISAGREE	10%	3%	5%	2%
2%	24%	DON'T KNOW/ REFUSED	44%	51%	47%	44%

At 81 per cent, the large majority of Bay of Plenty residents agree that walking around their town centre is easy. Cycling had a relatively positive response. Still, many residents did not know or refused to comment on cycling, possibly because many residents don't use bicycles. Eastern Bay of Plenty residents found it easier to walk than Tauranga residents and easier to cycle than Western Bay of Plenty residents. Questions on public buses also had many residents refusing to comment or stating they 'don't know'. Still, many residents were positive about the various aspects of the public bus service.

#### 6.5 AIR TRAFFIC

TOTAL AIRCRAFT ARRIVAL AND DEPARTURES AT TAURANGA AND ROTORUA AIRPORTS

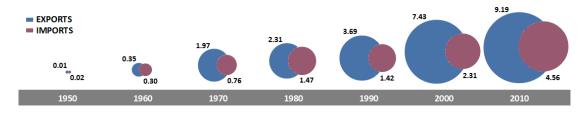


Air traffic through Tauranga and Rotorua airports increased by 36 per cent and 29 per cent respectively in the four years to 2008. Air traffic numbers have dropped significantly in the last two years, reversing much of this growth. Numbers count all arrival and departures, including sports air craft.

SOURCE: MINISTRY OF TRANSPORT

#### 6.6 CARGO THROUGH THE PORT OF TAURANGA

EXPORT AND IMPORT TONNAGES THROUGH THE PORT OF TAURANGA (IN MILLIONS)



The Port of Tauranga has seen a huge increase in both export and import tonnages over the last 60 years and is now the largest exporting port in New Zealand. This is a positive sign for the port and provides a great boost to the regional economy. One downside is that the region has the highest intensity of heavy vehicles on roads in New Zealand, since half of all exports are transported to the port via roads.

SOURCE: PORT OF TAURANGA





It goes without saying that when you are healthy you are happier. But good health also has benefits beyond the individual. A healthy population is more productive, spends more time in the labour force and demands less of the health and welfare system.

The last census showed that over 10 per cent of Bay of Plenty residents were living in crowded housing. This is in line with the national average. Residents in crowded housing generally have poorer living conditions and quality of life and ultimately put a strain on public services.

Most Bay of Plenty residents rate their health as good or better than good, with only 13 per cent of residents stating their health was poor or fair. Most residents are also maintaining a good level of activity, with 77 per cent being active four or more times per week. While these are positive results, the region still has a lower life expectancy than the national average.

Bay of Plenty is not doing well in regard to teenage pregnancies, smoking and suicide rates. Currently, the Bay of Plenty has the fourth highest rate of teenage pregnancies in the country, well above the national average. Teenage pregnancies create a number of negative social issues and can lead to a life in hardship for the young mother and child.

Bay of Plenty adults smoke more (27 per cent) than the national average (22 per cent). The effects of smoking are well documented. Smoking contributes to a number of cancers, heart attacks and strokes and diseases such as emphysema. The proportion of smokers did not fall in the ten years to 2006.

The male suicide rate is alarmingly high in the Bay of Plenty. The region experiences 36 per cent more male suicides per capita than the national average. Bay of Plenty females are less likely to commit suicide than the national average. Suicides are tragic for the individual and devastating to family, friends and the wider community.

#### 7.1 HOUSEHOLD CROWDING





Over 10 per cent of Bay of Plenty residents live in crowded housing, the fifth-highest rate in New Zealand behind Auckland, Gisborne, Northland and Hawke's Bay. While the Bay of Plenty sits alongside the national average, any level of crowded housing lowers the quality of life for the affected residents as well as the surrounding communities. Ultimately, crowded households can lead to a strain on public services including healthcare, waste collection, water supply and wastewater treatment.

SOURCE: STATISTICS NEW ZEALAND

#### *7.2* POLL RESULTS

# In general, how would you rate your health:

Excellent	17%
Good or Very good	70%
Fair	11%
Poor	2%

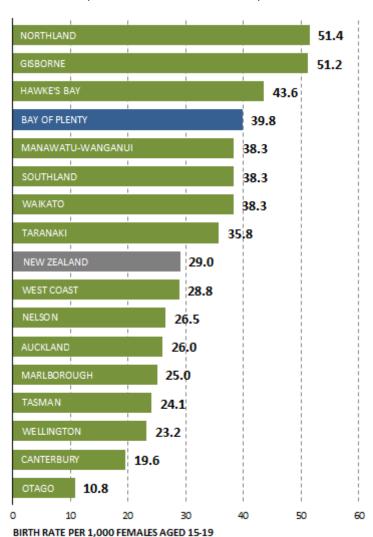
# Days in the last week when you were active:

None	5%
1, 2 or 3 days	18%
4 or 5 days	21%
6 or 7 days	56%

The large majority of Bay of Plenty residents perceive their own health to be good or better than good. While there was no great disparity across the region, non-Māori residents (55 per cent) were more likely than Māori residents (47 per cent) to rate their health as excellent or very good. Most Bay of Plenty residents were active six or seven days in the week before they were surveyed. Only 23 per cent of residents were active less than four days in the previous week. Tauranga residents and those aged 15-29 were less active than others across the region. In this case, active was defined as having done 15 minutes or more of vigorous activity or 30 minutes or more of moderate activity.

#### 7.3 TEENAGE BIRTH RATE

BIRTHS RATE PER 1,000 FEMALE POPULATION AGED 15-19, 2010



The Bay of Plenty has the fourth highest rate of teenage pregnancies across New Zealand and sits well above the national average. Teenage pregnancies are linked to many social issues, including lower educational levels, higher rates of hardship and ultimately a life with fewer opportunities for the children of teenage mothers.

SOURCE: STATISTICS NEW ZEALAND

#### 7.4 LIFE EXPECTANCY

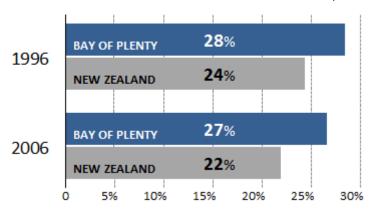
LIFE EXPECTANCY AT BIRTH

	1995-1997	2000-2002	2005-2007
MALES			
Bay of Plenty	73	75.4	77.1
New Zealand	74.4	76.5	78.2
FEMALES			
Bay of Plenty	79.2	80.5	81.9
New Zealand	79.8	81.4	82.4

Life expectancy is a key indicator of the health of a society. While life expectancy has been increasing in the region, it is consistently lower than the New Zealand average. This is especially so for Bay of Plenty males, whose life expectancy is one year lower than the New Zealand average.

#### 7.5 SMOKING

PROPORTION OF RESIDENTS AGED 15 AND OVER WHO CURRENTLY SMOKE, 2006

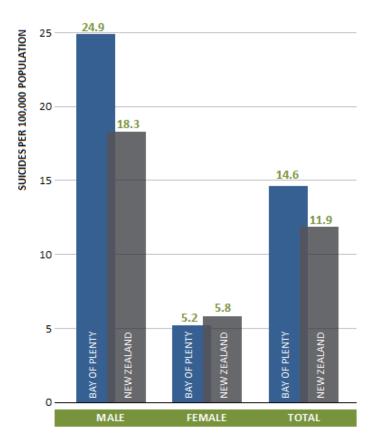


Even though the danger of smoking is now well known, more than one in four Bay of Plenty residents smoke. In the decade to 2006 there was only a 1 per cent drop in smokers in the region, keeping the Bay of Plenty smoking numbers well above the New Zealand average.

SOURCE: STATISTICS NEW ZEALAND

#### 7.6 SUICIDE

NUMBER OF SUICIDES PER 100,000 POPULATION, 2003-2007



Suicides cause much emotional trauma for friends, family and the community.

The Bay of Plenty has a high suicide rate compared to the national average. This is due to an alarmingly high male suicide rate. Between 2003 and 2007 male suicides in the Bay of Plenty were 36 per cent higher than the national average. The female suicide rate is below the national average, and overall, females are less likely to commit suicide than males.

SOURCE: MINISTRY OF HEALTH



# **CRIME & SAFETY**



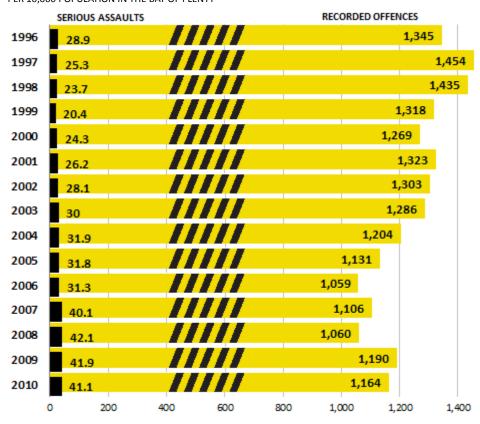
Crime rates in the Bay of Plenty have been moving in the right direction until 2006, but the last four years have seen crime rates increase. Of most concern is the steady rise in serious assaults (those resulting in injuries), almost doubling in the ten years to 2010.

A survey in 2010 found that the large majority of Bay of Plenty residents felt safe in their town centres during the day. However, at night, residents feel much less safe in their town centres. A separate survey of Tauranga residents shows they feel unsafe because of alcohol and drug problems (43 per cent), followed by the perception that there are people whom it just feels dangerous to be around (30 per cent).

The Bay of Plenty fares very well in terms of road safety with the fourth lowest rate of road injuries and deaths in the country. Although this number has fluctuated over the last decade, the Bay of Plenty has always remained below the national average.

#### 8.1 CRIMINAL OFFENCES

PER 10,000 POPULATION IN THE BAY OF PLENTY



For most of the ten years leading up to 2006, criminal offences per capita were declining. However, the last four years have seen crime rates slowly trending upwards again. Serious assaults (those resulting in injuries) have risen at an alarming rate in the Bay of Plenty, close to doubling in the decade to 2010.

SOURCE: NEW ZEALAND POLICE

#### 8.2 POLL RESULTS

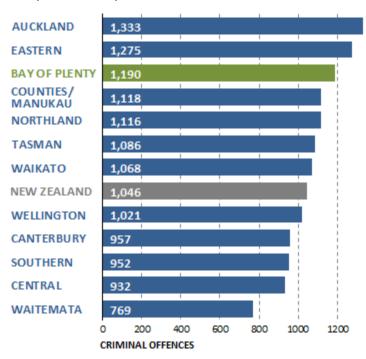
# How safe residents feel in their town centre:

	DAY	NIGHT
Very safe/safe	89%	33%
Neither safe nor unsafe	7%	16%
Unsafe/very unsafe	3%	44%
Don't know	1%	8%

One part of creating a vibrant and functioning town centre is ensuring residents feel safe using it. The large majority of Bay of Plenty residents feel safe in their town centre during the day, but the reverse is true for night time.

#### 8.3 CRIMINAL OFFENCES BY POLICE DISTRICT



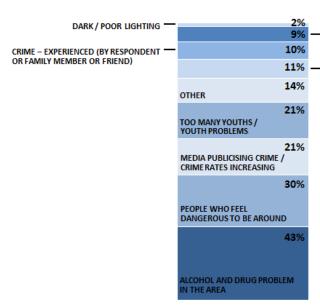


The number of criminal offences in an area provides a broad measure of personal safety and wellbeing. The Bay of Plenty has a high number of criminal offences per capita, only lower than the Auckland and Eastern police districts. A decade ago, the region had the second highest number of criminal offences per capita.

SOURCE: NEW ZEALAND POLICE

## 8.4 REASONS FOR LACK OF SAFETY IN TAURANGA

MOST FREQUENTLY MENTIONED REASONS FOR LACK OF SAFETY IN TAURANGA AFTER DARK, 2010



ELEMENT OF DOUBT / DON'T FEEL COMFORTABLE / THREATENING / BEING CAUTIOUS

UNSAVOURY PEOPLE / RACE / LOW CLASS / VANDALISM / TAGGERS

Tauranga residents who feel unsafe in the city mention alcohol and drug problems as the major concern at 43 per cent, the highest score across New Zealand's eight largest centres. The second biggest concern for Tauranga residents is the perception that there are people whom it feels dangerous to be around.

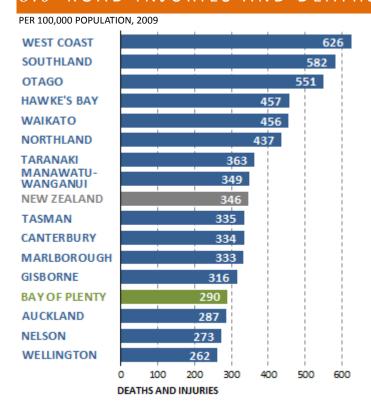
SOURCE: QUALITY OF LIFE SURVEY

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## 8.5 ROAD INJURIES AND DEATHS



Deaths, injuries and disability resulting from motor vehicle crashes inflict considerable pain and suffering on individuals, families and communities.

The Bay of Plenty has a low number of injuries and deaths on the road, sitting well below the national average and bettered only by Auckland, Nelson and Wellington. This number has fluctuated somewhat over the last decade but has always remained below the national average.

SOURCE: NEW ZEALAND POLICE

# SOURCES & NOTES

# CHAPTER ONE THE BIG PICTURE

- **1.1** Data from various sources, all of which are listed below
- **1.2** Data from www.stats.govt.nz, search for 'Subnational ethnic population projections'. Projections use 2006 as base year and 2009 boundaries
- 1.3 Data from www.stats.govt.nz, search for 'Subnational population projections'. Population projection for 2011 uses 2006 base year and 2009 boundaries
- 1.4 Data from Infoshare application on www.stats.govt.nz under Group: DPE, Table: Estimated Resident Population for Subnational Areas, at 30 June.
- 1.5 Data from Table Builder application on www.stats.govt.nz under subject 'Population estimates at 30 June 2006-10', filtered by age and Regional Council
- 1.6 Data from Table Builder application on www.stats.govt.nz under subject 'Income tables', subheading 'Household income by region'
- 1.7 Data from Table Builder application on www.stats.govt.nz under subject 'Income statistics', subheading 'Household income by region'
- 1.8 Data originally from www.stats.govt.nz using median household equivalised national gross income benchmarked at 2001 and number of people living in households. In this case data was taken straight from the 'Regional Indicators 2010' report by the Ministry of Social Development
- **1.9** Data from Community Outcomes survey 2010, available from www.boprc.govt.nz

# CHAPTER TWO JOBS & THE ECONOMY

- 2.1 Data from Infoshare application on www.stats.govt.nz under Group: HLF, Table: Labour Force Status by Sex by Regional Council
- 2.2 Data from Infoshare application on www.stats.govt.nz under Group: BUD, Table: Employee count by Region, ANZSIC and Size Group (ANZSIC 06)
- 2.3 Data from Infoshare application on www.stats.govt.nz under Group: HLF, Table: Labour Force Status by Sex by Regional Council, year to December
- 2.4 Data from Infoshare application on www.stats.govt.nz under Group: HLF, Table: Labour Force Status by Sex by Regional Council, year to December
- 2.5 Data originally from New Zealand Income Survey available at www.stats.govt.nz. In this case data was taken straight from the 'Regional Indicators 2010' report by the Ministry of Social Development
- 2.6 Data from www.tourismresearch.govt.nz, search for 'NZ regional forecast pivot tables 2010-2016'
- 2.7 Data from Infoshare application on www.stats.govt.nz under Group: BLD, Table: Number, value and floor area by building type, nature and region, year to December
- 2.8 Data from Statistics New Zealand
  (average weekly earnings), the Reserve
  Bank (mortgage interest rates) and Real
  Estate Institute of New Zealand (median
  dwelling prices). The indicator is
  calculated based on the Massey
  University 'Home Affordability Index'

- **2.9** Data from the 2010 Quality of Life survey, available at www.bigcities.govt.nz
- 2.10 Data originally from Household Labour Force Survey available at www.stats.govt.nz. In this case data was taken straight from the 'Regional Indicators 2010' report by the Ministry of Social Development

# CHAPTER THREE ENVIRONMENT

- **3.1** Data from www.boprc.govt.nz, search for 'TLI of Rotorua Lakes'
- **3.2** Data from Bay of Plenty Regional Council, available on request
- **3.3** Data from Bay of Plenty Regional Council, available on request
- **3.4** Data from Bay of Plenty Regional Council, available on request
- **3.5** Data from www.boprc.govt.nz, search for 'Swimming water quality'
- **3.6** Data from Bay of Plenty Regional Council, available on request
- 3.7 Data taken from Bay of Plenty Community Outcomes report, 2008. Available at www.boprc.govt.nz
- **3.8** Data from Community Outcomes survey 2010, available from www.boprc.govt.nz

# CHAPTER FOUR EDUCATION

- 4.1 Data from ECE analysis team, Ministry of Education. Available at www.educationcounts.govt.nz under Early Childhood Education in the statistics section
- **4.2** NCEA Achievement Data from the Ministry of Education, taken from www.educationcounts.govt.nz under Schooling in the statistics section
- **4.3** NCEA Achievement Data from the Ministry of Education, taken from www.educationcounts.govt.nz under Schooling in the statistics section

- 4.4 Data originally from Household Labour Force Survey available at www.stats.govt.nz. In this case data was taken straight from the 'Regional Indicators 2010' report by the Ministry of Social Development
- 4.5 University entrance data from Indicators & Reporting Team at the Ministry of Education. Available at www.educationcounts.govt.nz under Schooling in the statistics section
- 4.6 University entrance data from Indicators & Reporting Team at the Ministry of Education. Available at www.educationcounts.govt.nz under Schooling in the statistics section

# CHAPTER FIVE CULTURE & HERITAGE

- 5.1 Data from the 2006 census by Statistics New Zealand. In this case data was taken straight from the 'Regional Indicators 2010' report by the Ministry of Social Development
- **5.2** Data from Community Outcomes survey 2010, available from www.boprc.govt.nz
- **5.3** Data from Community Outcomes survey 2010, available from www.boprc.govt.nz
- **5.4** Data from Community Outcomes survey 2010, available from www.boprc.govt.nz
- **5.5** Data taken from Bay of Plenty Community Outcomes report, 2008. Available at www.boprc.govt.nz
- **5.6** Data from Community Outcomes survey 2010, available from www.boprc.govt.nz

# CHAPTER SIX TRANSPORT

- **6.1** Data from the 2010 Quality of Life survey, available at www.bigcities.govt.nz
- **6.2** Data from Bay of Plenty Regional Council, available on request
- 6.3 Data from the Ministry of Transport's 'Transport Monitoring Indicator Framework', available at http://www .transport.govt.nz/ourwork/tmif/. The

- statement regarding vehicle ownership decreasing for the first time since vehicles were introduced cannot be substantiated due to a lack of data and is purely an intuitive statement
- **6.4** Data from Community Outcomes survey 2010, available from www.boprc.govt.nz
- 6.5 Data from the Ministry of Transport's 'Transport Monitoring Indicator Framework', available at http://www .transport.govt.nz/ourwork/tmif/
- Data from the Port of Tauranga publication 'Port Trade and Statistic Information, available at www.porttauranga.co.nz Media Room & Publications section

# CHAPTER SEVEN HEALTH & WELFARE

- 7.1 Data originally from Statistics New Zealand. In this case data was taken straight from the 'Regional Indicators 2010' report by the Ministry of Social Development
- **7.2** Data from Community Outcomes survey 2010, available from www.boprc.govt.nz
- 7.3 Data from Infoshare application on www.stats.govt.nz under Group: VSB, Table: Live births by area, regional councils, and age of mother, year to December. Population of females between 15-19 taken from Table Builder application on www.stats.govt.nz
- 7.4 Data originally from Statistics New Zealand. In this case data was taken straight from the 'Regional Indicators 2010' report by the Ministry of Social Development
- 7.5 Data taken from the 'Regional Indicators 2010' report by the Ministry of Social Development
- 7.6 Data originally from Ministry of Health. In this case data was taken straight from the 'Regional Indicators 2010' report by the Ministry of Social Development

# CHAPTER EIGHT CRIME & SAFETY

- **8.1** Data from the New Zealand Police, available at www.police.govt.nz under Crime Stats in the Resources section
- **8.2** Data from Community Outcomes survey 2010, available from www.boprc.govt.nz
- **8.3** Data from the New Zealand Police, available at www.police.govt.nz under Crime Stats in the Resources section
- **8.4** Data from the 2010 Quality of Life survey, available at www.bigcities.govt.nz
- 8.5 Data originally from Ministry of
  Transport. In this case data was taken
  straight from the 'Regional Indicators
  2010' report by the Ministry of Social
  Development

# PHOTO INFORMATION

#### **PHOTO CREDITS**

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