

Introduction

This is the 2007 State of the Environment Report for the Rotorua district. It has been prepared by Rotorua District Council (Council) in accordance with Section 35 of the Resource Management Act 1991 (RMA).

It is the second report of its kind to be produced for Rotorua. The first was prepared in 2002 and set many of the baselines for measurement.

Monitoring the state of the environment is an important part of the resource management process. A suite of 'indicators' is used to help measure the state, pressure or response of something. From the indicators trends are identified that may signal an emerging environmental issue, which in turn may help in working out whether particular actions are having the desired effect on the environment, or highlight current habits or behaviors that need changing.

A good example is air quality. A worsening state of air quality might be due to an increase in air pollution by vehicles or the number of homes using damp firewood for heating. In knowing, a response can be developed that focuses on reducing the pressure being placed on this resource.

The environment is more than natural resources such as water, air, land and habitats. The environment also includes people. To a large extent this report is about how people interact with the water, land and air, and the impact of people's actions on these resources. In turn, the state of these natural resources has a social, cultural and economic impact.

This report aims to answer the following questions:

- What is happening in the environment?
- Why is it happening?
- Are there knowledge gaps and what can be done to address these gaps?
- How effective are the current responses including positive environmental benefits?

Most of these questions are answered by looking at the results from 2002 and assessing the trend over the last five years. Not all of the indicators reported on in 2002 have been considered again in this report, and there are a number of reasons for this. Some indicators have been improved as better information is now available. Other indicators were unable to be repeated due to a lack of data and some new indicators have been introduced as new requirements have been set and information has become available.

This report has a number of parts, with the main one being the description and discussion of the indicators. Before the indicators are discussed in detail the rest of this introductory section is dedicated to providing a snapshot of the key features of the district and an overview of monitoring results of the last five years in relation to the state of Rotorua's environment. The indicators have been grouped according to the themes of the Environmental Well-Being Statement that forms part of Council's Ten Year Plan 2006-2016. Through the community consultation process for the Ten Year Plan the people of Rotorua placed a high priority on having a community that respects its environment. The major themes of the Environmental Well-Being Statement and this report are:

- Freshwater sustainability
- Geothermal resources
- Culture, heritage and tourism
- Biodiversity
- Open spaces
- Rural land
- Urban design and amenity
- Sustainable waste management
- Sustainable infrastructure
- Transport
- Energy resources
- The global environment



Introduction: Rotorua snapshot

This snapshot describes the key features and flavours of Rotorua. It is not intended to be an exhaustive description - there are many sources for this type of information some of which are listed at the end of this report.

Rotorua's history, natural features, landscapes, culture and people are what makes it a unique place to live, work and play. The lakes, geothermal landscape, mountain biking in the Redwoods and Maori culture are features that most readily spring to mind when people think of Rotorua.

Rotorua is a volcanic landscape lying on one of the North Island's major fault lines. The city lies in the basin of a caldera, and Mount Tarawera is a prominent landmark. Hot springs, mud pools, and geysers are other key features of this dynamic landscape.

There are 16 lakes in the district, with Lake Rotorua being the largest (Figure 3). The lakes to the south-east of the city (Okataina, Tarawera, Okareka, Tikitapu, Rotokakahi and Rotomahana) are collectively regarded as having national significance. All our lakes are of local significance and provide Rotorua people and visitors with various recreational opportunities.

Maori culture

Rotorua is famous throughout New Zealand, and the world, for its Maori culture and manaakitanga. 'Manaakitanga' means a proud spirit, a deep sense of history, enveloping warmth and a quick humour.

Rotorua's Te Arawa people are at the forefront of tourism, leading the way to the natural wonders that have been part of the district's landscape for many years.

Although Rotorua's Maori community is predominantly urban, there are approximately 35 marae in the district, at least 20 of which are situated in rural areas. Marae have a significant influence in the district and some are of major interest to visitors. The earliest Maori villages in the area, around which modern Rotorua is based, were close to geothermal sites.

Tourism

Due largely to the presence of Maori culture, lakes and geothermal features, Rotorua is one of the country's leading tourism centres, attracting more than one-third of all international visitors to New Zealand. According to a report by the Ministry of Tourism, Rotorua had 3.4 million visitor nights, with \$470 million spent by domestic and international visitors in 2005/ 2006.

Census information from 2006 shows one in five people in the district's labour force are employed in tourism-related activities. There are over 300 accommodation and hospitality businesses. The development of the Energy Events Centre and the continued development of tourism and other business activity will be key drivers of future economic growth and employment.

Economy

Land cover information (2001) from Terralink shows dominant land use remains primarily pastoral (42.6%) followed by production forest (24.8%). Most of the agricultural land in Rotorua is used for dairy, beef, sheep, and deer farming. Horticulture remains a relatively minor industry, but there is scope for introducing new crops based on specific soils and microclimates.

Rotorua's economy includes tourism, agriculture, forestry, wood processing, manufacturing, retail, business services, education, health and other services. According to the Economic Development Unit of Rotorua District Council, the Rotorua economy has an estimated aggregate output of \$2 billion per annum.

Rotorua's economic base has been changing at a rapid pace due to considerable innovation in traditional sectors such as tourism, forestry and agriculture. The recent implementation of the Bright Economy Strategy has resulted in six key development areas: research and development, biomaterials, land use optimisation, lifestyle and immigration, local energy generation and water.

Introduction: Rotorua snapshot

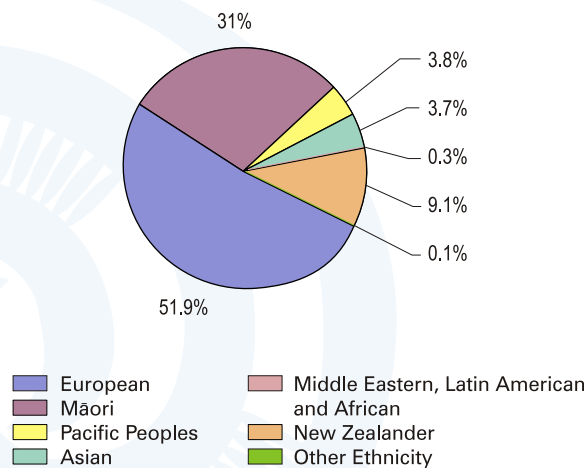
Population

Rotorua has experienced an average of 0.2% population increase per year since 2001 with 67,500 people estimated as living in the district at the time of the 2006 census count (Figure 2). Almost 55,000 (or 80%) of Rotorua's population lives in the urban area.

According to the 2006 Census, approximately 31% of Rotorua's population is Maori (Figure 1). These statistics also indicate that over 11,000 people speak two or more languages.

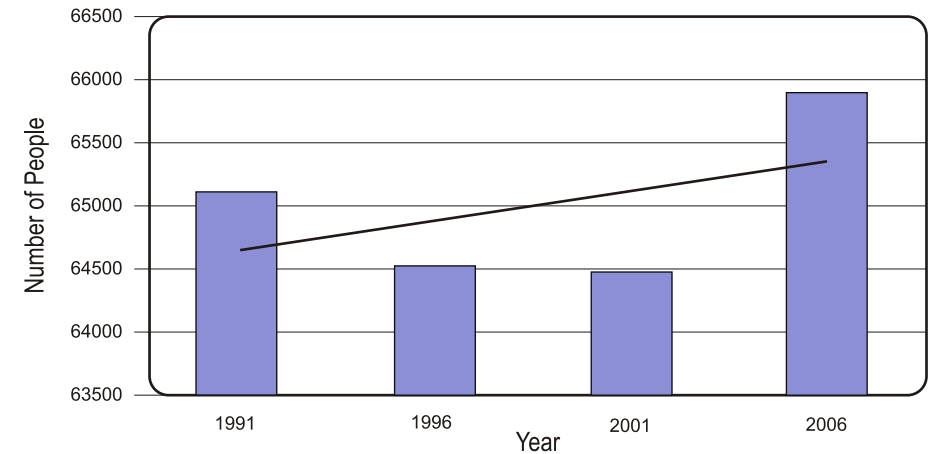
Rotorua's ethnic composition is changing. The European population has decreased from 72% in 2001 to 51.9% in 2006. The Maori population has also decreased from 35% to 31%. 'Other' New Zealanders comprise 9.1% of Rotorua's population, while Pacific and Asian ethnicities make up 3.8% and 3.7% respectively.

Figure 1. Ethnicity of Rotorua residents



Source: Statistics New Zealand, 2007

Figure 2. Rotorua district resident population

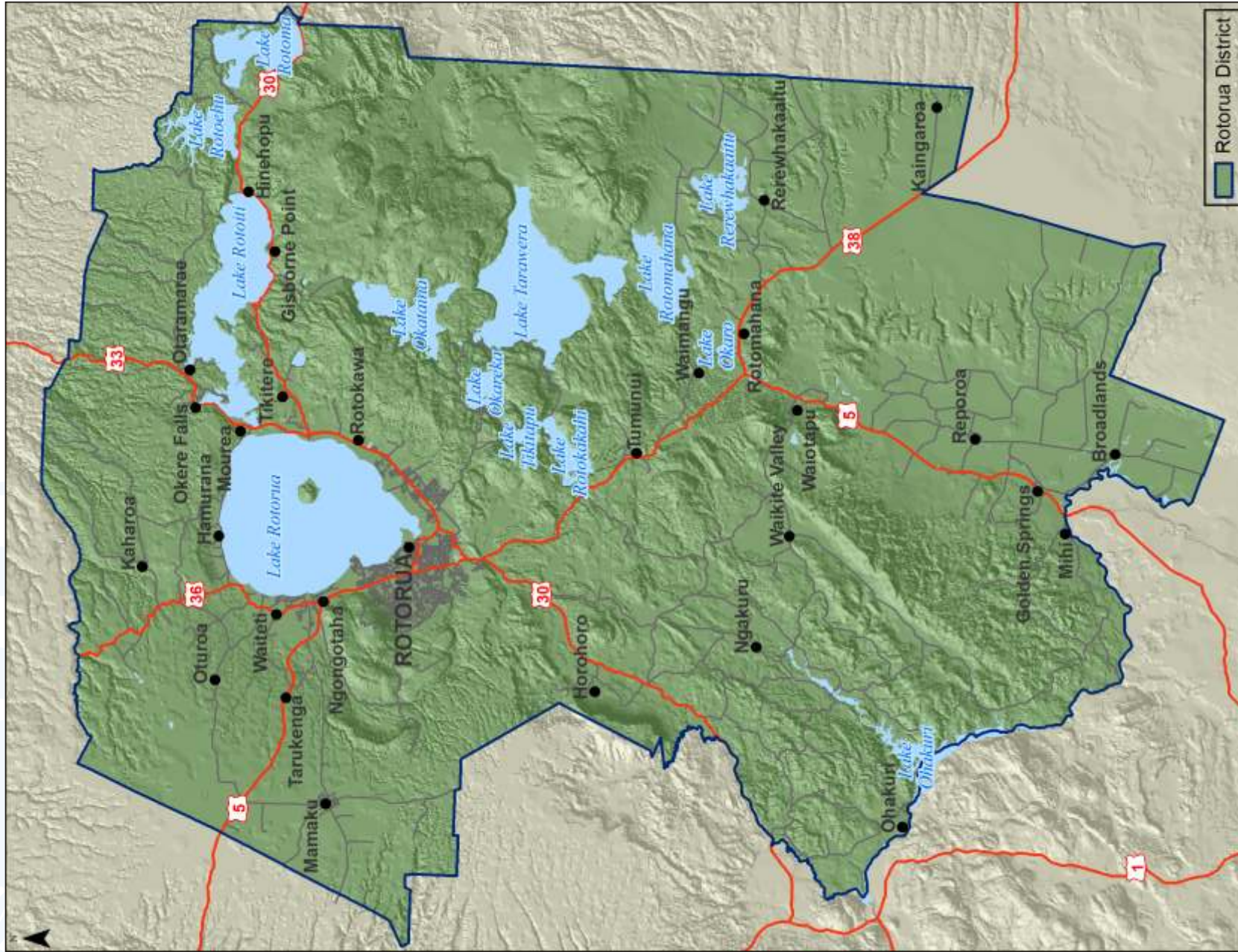


Source: Statistics New Zealand, 2007



Rotorua district

Figure 3. Rotorua district map



Source: Rotorua District Council 2007