



Be amazed by Auckland!

As Aucklanders we're the guardians of a unique environment! From the internationally recognised native forests of the Waitakere and the Hunua ranges to the Gulf islands, the volcanoes, streams and lakes; Auckland is a special place.

This booklet is a snapshot of Auckland's environment today. It shows how the region's air, seawater, freshwater, land, plants, animals and heritage are holding up under the pressure of a large population – 1.3 million and rising. It outlines where and how the environment is suffering or improving and also explains how natural hazards such as volcanoes and landslides might affect the region.

What you see here is the result of over 20 years of careful monitoring and analysis. We've also brought in monitoring results from other organisations to complete the picture.

All this work helps us build a picture of the natural processes occurring in the world around us, and to track any environmental changes.

With this information, we can work out a list of priorities that need our help and better still, work out ways to avoid the damage that we cause.

Collectively, it is our job to keep Auckland's natural environment pristine, and to restore those areas that have become damaged over time.

The array of life found on land, in the rivers, lakes and sea needs our help to thrive and every one of us has a part to play.

For a more detailed information check out the full State of the Auckland Region report which can be found at www.arc.govt.nz

Auckland's inventory

Covering about 16,141km², this is a brief inventory of the Auckland region:

- **about 4,518km²** of mainland, mostly soft sandstone and mudstone with some areas of hard greywacke (a type of hard sandstone) and volcanic basalt. Most rural land has low but sometimes steep hills with patches of native bush, exotic forest and scrublands. Large areas of native bush cover the Waitakere and the Hunua ranges.
- **abundant freshwater.** Most Auckland rivers are short, but together they make up more than 16,500km of permanent waterways. Freshwater is stored in 10 artificial reservoirs in the Waitakere and the Hunua range. Geothermal hot springs can be found at Waiwera and Parakai.
- **about 1,800km of coastline.** The rugged west coast is exposed to the prevailing west to south-westerly winds and has wide black sandy beaches. In contrast, the more populated east coast is fairly sheltered with beaches of pale sand, often fringed by low cliffs and sprawling pohutukawa trees. Estuaries, harbours and small inlets make up two thirds of the region's coastline.
- **about 11,117km² of sea** (about 69 per cent of the region). The Tasman Sea begins at the west coast, while the east coast opens onto the island-studded, sheltered Hauraki Gulf that leads into the Pacific Ocean.
- **numerous islands** that together contain about 506km² of land. Some support permanent populations (Waiheke, for example) and others (like Tiritiri Matangi) have been made into predator-free nature reserves.
- **three main large shallow harbours.** The Waitemata Harbour on the sheltered east coast is the main commercial port around which Auckland city developed. On the west coast are the Manukau and Kaipara harbours. The Manukau has a dangerous sandbar and the Kaipara is one of the largest harbours in the Southern Hemisphere.
- **urban area.** Stretching across the Auckland isthmus and around the Waitemata and the Manukau harbours, this is the largest urban area in New Zealand. It contains about 90 per cent of all the people in the Auckland region. Many of us love our city, and so do people overseas: in the 2009 Mercer Quality of Life survey Auckland rated as joint 4th best city to live in, up there with Vancouver, Geneva, Vienna and Zurich.

Weather and climate

The mild, wet Auckland climate has helped to define the ecosystems that have developed here, such as the dense vegetation in the native forest. The Southern Oscillation influences Auckland's climate and it has two states. During El Niño years, stronger westerly winds make for wetter summers, and stronger southerlies make for colder winters. During a La Niña state, tropical storms and cyclones are brought in by north-easterly winds.

Current climate change projections suggest that the Auckland region could experience hotter, drier weather punctuated by more heavy rainfall events. Drought could lead to water shortages (heavy rainfalls can simply run off dry land), changes to ecosystems, sub-tropical diseases like malaria, and threats from invasive plant and animal species. The regional and local economy could be damaged if climate changes affect agricultural or primary sector (raw material) production.

How the region will adapt and respond to climate changes will depend on the amount and speed of the changes, our knowledge, skills and resources, access to new technology, and the level of commitment to reducing greenhouse gas emissions.

Looking back in time

Before humans arrived, most of the Auckland region was covered by evergreen forest. A huge diversity of life flourished on the land, in the rivers and in the sea. The ecological habitats that were filled by mammals elsewhere in the world were here occupied by unique creatures that evolved in our geographically isolated environment. Even today New Zealand is renowned internationally as a biodiversity hot spot.

Humans have had a huge impact on the region's natural environment and we've now got many environmental problems. Some are old, such as those resulting from historic forest clearance, and some more recent, such as air pollution.

There is no quick-fix to Auckland's problems; technology doesn't have all the answers, and natural systems can respond unpredictably. But by understanding the environment and the impacts humans have made on it, good planning can help avoid mistakes being repeated, and allow conservation and restoration of natural areas as the population continues to grow.

Whether at home, work or passing through, by reducing waste, changing the way land, air and water is used and by conserving native areas, we can all help keep Auckland's environment healthy.

*'Kia whakatomuri te haere ki mua'
'To walk into the future, our
eyes must be fixed on the past'*

