



TARANAKI

WHERE WE STAND

STATE OF THE ENVIRONMENT REPORT 2009 – SUMMARY



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TARANAKI – WHERE WE STAND

MESSAGE FROM THE CHAIRMAN AND CHIEF EXECUTIVE

We're proud to present the Taranaki Regional Council's third major state of the environment report, and this booklet which summarises it. We have much pleasing news for the people of the region, while we also highlight areas where more work is needed.

The report itself is the result of a major effort by the Council – but that's not the main story. The fact that Taranaki enjoys a generally high-quality environment reflects a high level of commitment, energy and expertise among all sectors of the region. This is borne out in the improvements we report on here, and in our pen-portraits of a wide range of people and organisations who are taking practical steps to ensure a more sustainable future.

This booklet is a summary of the full 282-page report, which is freely available if you want more detailed information. Enjoy your read.



David MacLeod (Chairman) and Basil Chamberlain (Chief Executive), Taranaki Regional Council.

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TARANAKI – WHERE WE STAND



Waiwhakaiho River and Mount Taranaki.

TARANAKI – THE STATE OF OUR ENVIRONMENT

This booklet summarises the Taranaki Regional Council's third state of the environment report for Taranaki – the earlier reports were prepared in 1996 and 2003.

This time the picture can be more complete. Much of the 2009 report's information is based on comprehensive monitoring programmes established by the Council in the mid-1990s. These programmes have now been running long enough to enable statistical testing of trends.

The report generally presents Taranaki as having a high-quality environment, which is valued and well-managed by the community.

Like any report card, though, there are positives and negatives. In summary, the report finds that:

- more of the eastern hillcountry land is being managed sustainably;
- our soils are generally healthy;
- agencies and community groups have stepped up efforts to protect indigenous biodiversity by undertaking predator control programmes;
- the ecological health of rivers and streams has measurably improved at a number of sites and not measurably deteriorated at any site over the past dozen years;
- measures of ecological health, such as the communities of invertebrates living in streams, are good to excellent in the upper catchments where there is more stream

bank vegetation cover but only fair further down the catchments where land use is more intense;

- fresh water usually meets the bacteriological guidelines for swimming, except after floods or in some intensively farmed catchments. Phosphorus levels, already naturally high and exceeding guidelines, are generally increasing further. Nitrogen levels meet guidelines in upper catchments but not further down;
- regionally significant wetlands have on the whole been adequately protected but small wetlands and streams are under pressure from land development;
- coastal water quality for ocean swimming is excellent, and rocky shore ecological health is reasonably stable;
- overall air quality in the region is excellent;
- landscape, amenity and heritage values are of high quality; and
- while the whole region is now serviced by just one landfill, the quantity of waste has increased by 20% over 12 years.

The 2009 report finds total spending on the environment by the Taranaki community is conservatively estimated at \$85.1 million a year, an increase of \$28 million a year since our 2003 report. Our high-quality environment has not come about by accident but by the co-operative and increasingly proactive actions of the community.

The *2009 State of the Environment Report* describes policies, programmes and actions that are the result of combined efforts of the Taranaki Regional Council, district councils, the Department of Conservation, the Ministry of Fisheries, community groups, iwi and landowners. In total, these achievements represent a significant step along the path to sustainable management in Taranaki. The Taranaki Regional Council's slogan of 'working with people, caring for our environment' summarises the approach seen as critical to successful environmental programmes in the future.

TARANAKI – THE PEOPLE AND THE PLACE

Geographically defined by one of New Zealand's most recognisable landmarks, Taranaki has a unique natural environment that firmly underpins the well-being, livelihoods and lifestyles of our 104,000-plus people.

Taranaki's 723,610 ha make up approximately 3% of New Zealand's total land area. The region consists of four distinct landforms, each of which requires a different type of environmental management. These are:

- the volcanic landscape and ring plain centred on Mount Taranaki;
- the dissected Taranaki hill country;
- the coastal and inland marine terraces of the North and South Taranaki coast; and
- the coastal and marine environment.

Many rivers and streams flow across the landscape. Of these, some 530 are named.

The region lies in the path of weather systems moving east over the Tasman Sea and the climate is generally sunny and windy, with moderate temperatures and regular rain throughout the year.

Annual rainfall varies markedly, ranging from less than 1,400 mm in coastal areas to more than 8,000 mm at the summit of Mount Taranaki. The climate and subsoils are suited to high-producing pastures, with about 60% of the region used for high-intensity pastoral farming.

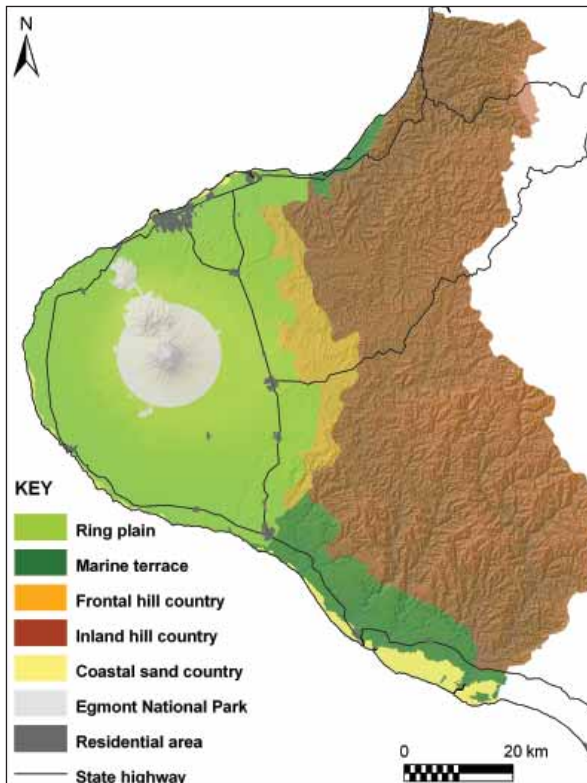
Approximately 40% of the region is in indigenous forest and shrubland, mostly within Egmont National Park and areas of the inland hill country.



Children at play, Ngāmotu Beach.

Agriculture, particularly dairying (and to a lesser extent, sheep and beef farming), has dominated the local economy for more than a century. However, since the second half of the twentieth century, oil and gas exploration and development has become increasingly important. Taranaki remains New Zealand's only commercially-producing oil and gas area and an area of continuing exploration activity.

Taranaki's population was 104,127 at the March 2006 census. This represents a 1.2% increase since 2001, reversing a 3.5% decline between 1996 and 2001. Over the past 10 years, however, the region's population decreased slightly from 106,590 to 104,127. Taranaki accounts for 2.6% of New Zealand's population.



Landforms of the Taranaki region.

The general trend has been for a decrease in the population of smaller rural towns and an increase in concentration of population in North Taranaki.

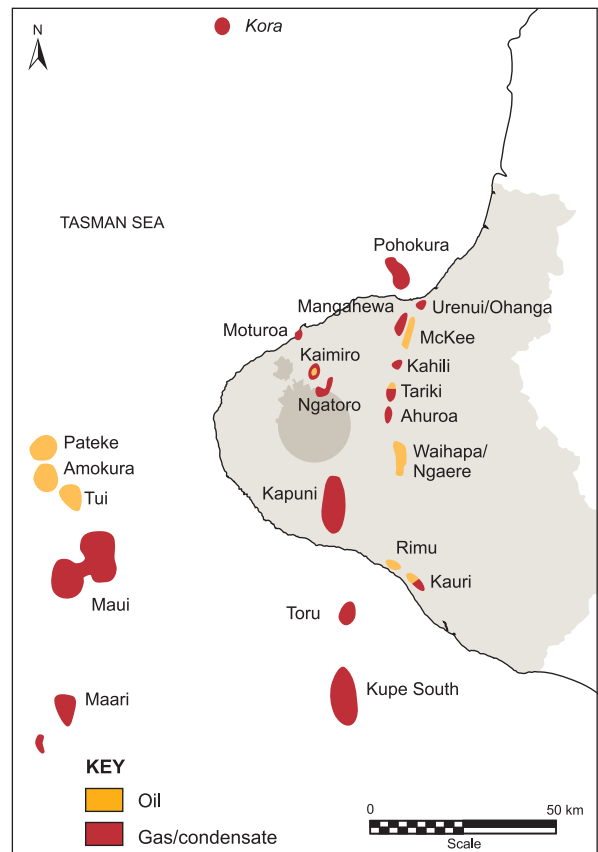
The Taranaki population is both older and younger than the national average, with a higher proportion of children aged under 15 years (21.8%) and adults aged over 65 (14.8%). The percentage of Māori continues to increase – from 11.9% in 1991, 14.7% in 2001 and 15.8% in 2006. Nationally, Māori make up 14.6% of the population.

Since 2004, economic growth in Taranaki has been consistently above the national growth rate, with the rate of growth slowing from early 2007. From 2004 to 2006 Taranaki recorded among the highest rates of economic growth in the country.

Overall, Taranaki makes up 2.5% of national employment and contributes 2.8% of national gross domestic product.

Under the Local Government Act 2002, Councils must promote the social, economic, environmental and cultural well-being of their communities, and are required to identify 'community outcomes' – the things that the community thinks are important for its well-being and want to see as the desired end result.

The four local authorities in the region have undertaken extensive consultation to identify Taranaki people's desired 'outcomes' as:

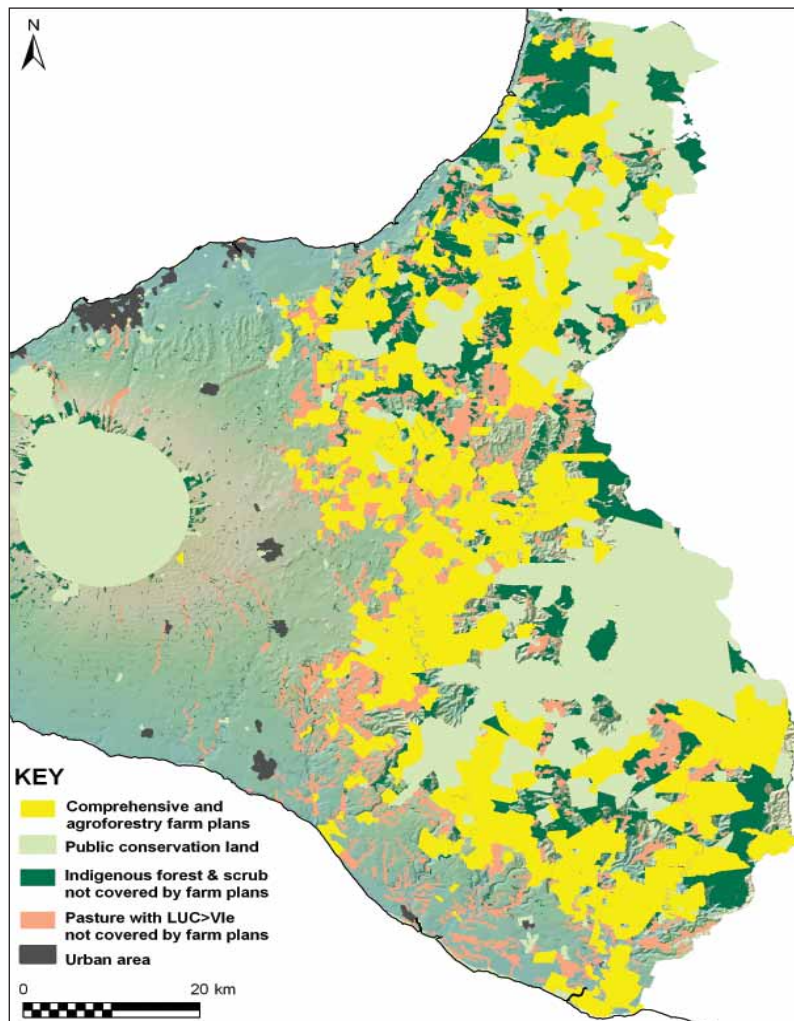


Main oil and gas fields in Taranaki.

TARANAKI – WHERE WE STAND

- **A secure and healthy Taranaki:** a region that provides a safe, healthy, and friendly place to live, work or visit.
- **A prosperous Taranaki:** a region that boasts a sustainable, resilient and innovative economy that prospers within the natural and social environments.
- **A skilled Taranaki:** a region that values and supports learning so that all people can play full and active roles in its social, cultural and economic life.
- **A connected Taranaki:** a region that delivers accessible and integrated infrastructure, transport and communication systems which meet the needs of residents, businesses and visitors.
- **A sustainable Taranaki:** a region that appreciates its natural environment and its physical and human resources in planning, delivery and protection.
- **A together Taranaki:** a region that is caring and inclusive, works together, and enables people to have a strong and distinctive sense of identity.
- **A vibrant Taranaki:** a region that provides high-quality and diverse cultural and recreational experiences and encourages independence and creativity.

The state of the environment has an important influence on the achievement of a number of these community outcomes.



Coverage of comprehensive and agroforestry farm plans in the hill country up to June 2008.

LAND, SOIL AND BIODIVERSITY

Soil is one of Taranaki's most important resources. The region's rural-based wealth depends on the amount of grass produced, which in turn depends on the sustainable management of soils. The region is fortunate to have naturally robust soils that retain their structure, nutrients and organic matter, a product of their volcanic nature. However, good management is still required to retain this advantage.

SOIL EROSION

Soil erosion rates vary throughout the region according to geology, slope, vegetation cover and land use. Land uses that are sustainable are those that match the capabilities of the land. Monitoring undertaken by the Taranaki Regional Council shows that:

- 87.4% of the hill country is being used sustainably with no significant soil erosion problems;
- there has been a 2.4% increase in sustainability over the past five years;
- the area of land in sheep and beef farming has continued to decline;
- 30.8% of hillcountry land is now reverting to scrub;
- the area in plantation forestry has doubled since 1994;
- a total of 269 comprehensive farm plans and 24 agroforestry plans have been prepared; and
- 178,580 ha, or 58% of privately-owned hillcountry land, and 5,233 ha, or 41% of privately-owned sand country, are now included in the Council's sustainable land management programme.

The Council will continue to monitor soil erosion in Taranaki.

SOIL HEALTH

The Council has continued soil quality investigations and monitoring projects to ascertain whether there are any emerging trends in Taranaki relating to soil compaction, depletion of soil nutrients, and residual soil contamination, each of which would affect soil health. This research shows that:

- 97% of Taranaki soils are of very low to moderate vulnerability to soil compaction;
- there is evidence of soil compaction on some Taranaki farms during wet weather, but this compaction is generally reversible with appropriate pasture and stock management;



Rob Tucker

A comprehensive farm plan is one of the tools Rod Pearce uses to sustainably farm his Waitōtara sheep and beef property.

- the carbon content of Taranaki soils is not changing, suggesting that soils are not becoming depleted of their organic content;
- phosphate levels, while increasing, are considered appropriate;
- total nitrogen levels are higher than optimal on all dairy farms surveyed, although most nitrogen is in the organic form which does not so readily leach out of the soil;
- nitrogen levels indicate vigorous pasture growth and have only minor implications for nutrient balancing;
- levels of cadmium available for uptake by plants are well below amounts that would give rise to environmental concerns, although they are increasing slowly;
- there is no evidence of any issue of residual or cumulative agrichemicals in the soils of the region; and
- baseline studies have been undertaken to explore soil fauna diversity.

CONTAMINATED SITES AND HAZARDOUS SUBSTANCES

The Council's register of selected land uses records 1,281 sites where past or current activities could have resulted in contamination. Of these:

- 757 sites (59%) have been investigated and no contamination found to be present;



Taranaki Regional Council

Taranaki Regional Council staff prepare to move hazardous waste after the fire at the former Pātea freezing works.

- 16 sites have been remediated, so levels of contamination no longer pose an unacceptable environmental risk;
- 480 sites contain hazardous substances, but based on current knowledge, not at levels that would pose an unacceptable environmental risk, or they are currently being managed so that there is no unacceptable risk, including the site of the former Pātea freezing works where a major fire occurred in February 2008;
- 28 sites have been classified as being low-risk, but require further investigation to complete classification; and
- No sites have been deemed 'contaminated', i.e. found to pose an unacceptable risk.

Council inspects industries and businesses to assess compliance with relevant regulations. Potentially contaminated sites are managed through the register of selected land uses and through district plans.

BIODIVERSITY

Biodiversity is significant to the people of Taranaki. It provides economic benefits in the form of ecosystem services (such as pollination, soil stability and fertility, and maintaining water quality), tourism opportunities, and potential commercial and medical uses. The Taranaki region, despite its modest size, is a biologically diverse region. In summary:

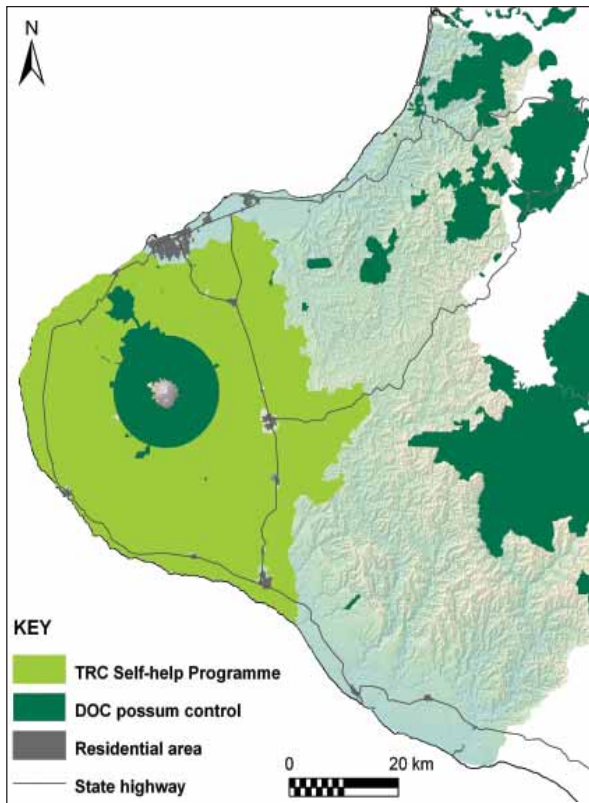
- Over 140,000 ha, or 20% of the region, are set aside as public conservation land;
- 3,374 ha of indigenous vegetation on private land are protected by landowners through QEII covenants, and this area is increasing;
- 57% of remaining indigenous vegetation is either in public conservation land or private land protected by a QEII covenant;
- 40 birds, mammals, reptiles and invertebrates have been identified as threatened in Taranaki, with about seven of them either stable or improving in numbers;
- predator control programmes, aimed at protecting threatened birds, are undertaken by a range of agencies, landowners and community groups;



East Taranaki Environment Trust

Adrian and Anna Mansell maintain stoa trap lines for the East Taranaki Environment Trust.

TARANAKI – WHERE WE STAND



Areas under sustained possum control under the Taranaki Regional Council's self-help possum programme and the Department of Conservation programmes.

- research into kererū and tūī in New Plymouth highlighted the importance of both native and exotic flowering and fruiting trees in the city;
- threatened plants often occupy coastal, cliff edge habitats and are threatened by weed species such as giant gunnera;
- possum levels are kept at low levels by landowners through the Taranaki Regional Council's self-help possum control programme on the ring plain and by Department of Conservation programmes in priority conservation areas;
- areas with goat control are healthier with higher numbers of regenerating seedlings of plant species vulnerable to goat browse;
- restoration of riparian, or stream side, vegetation results in an increase of both plant and bird biodiversity; and
- the number of community-led biodiversity projects is increasing.

Biodiversity on land is managed by a number of agencies. The Taranaki Regional Council has prepared a *Biodiversity Strategy* to guide all the various biodiversity actions undertaken by the Council, for working alongside landowners to maintain and enhance biodiversity on private land.



Ruka Holden and David Rangitawa grow native species at Kii Tahī Nursery for the riparian plant scheme.

KII TAHI, THE HUMAN FACTOR IN BIODIVERSITY

They grow plants and they grow people at Kii Tahī Nursery and Land Care, which is based at Wai-o-Turi Marae south of Patea

Most of the plant output – about 44,000 per year, all of them native species – is destined for Taranaki stream banks where they protect and enhance water quality and promote biodiversity.

And many of the young workers who have come through the nursery have found it to be a springboard to a career, not only in horticulture but also with organisations like the Navy.

“A lot of people think the youngsters don't want to work but there are plenty keen to work here,” said the Operations Manager, Heremia Taputoro. “And many have done well. We're growing our people.”

An enterprise of Ngā Rauru Kii Tahī, the nursery has a 'catchment' of 11 marae to call on and currently has satellite growing operations at two others besides Wai-o-Turi.

Heremia leads four full-time staff at the 1.6 ha main site, set amongst the marae's 4 ha. A stunning garden of native flaxes and grasses graces the road frontage, a clear signal to visitors about this enterprise's kaupapa.

Kii Tahī produces 20 varieties of native plants and flaxes, most under contract to the Taranaki Regional Council for its riparian management programme. Nursery workers also get involved in the on-farm planting and follow-up maintenance work.

The nursery was established in 2000, growing vegetables at first but soon made the switch to native species, as the Council's riparian scheme offers a relatively secure customer base.

Kii Tahī shares the Council's ambition to greatly increase the rate of riparian planting in the region – in this case for the extra employment opportunities it will create for the iwi, as well as the biodiversity and environmental benefits of the project.



Manganui River at Everett Park.

FRESH WATER

Fresh water is important to the people of Taranaki, and is vital for community water supplies, major industrial users and agriculture. Maintaining and enhancing the mauri (life force) and wairua (spirit) of water is of fundamental importance to tangata whenua. Water is also highly valued for its association with a wide range of amenity and recreational uses such as swimming, angling, enjoying picnics, walking and tramping.

The region contains hundreds of rivers and streams, and the quality of their water is strongly influenced by their use and by the adjacent land. Pastoral and urban development over the past 150 years has resulted in dramatic changes to the character of Taranaki's rivers and their catchments. The predominant agricultural pressure on our freshwater resources comes from the dairying sector, which covers the majority of the ring plain. Dairy herds are increasing in size, with the number of cows in Taranaki steadily increasing from 350,000 in the late 1970s to what appears to be a plateau of about 480,000. Pressures on freshwater quality and quantity also come from industrial uses.

FRESHWATER QUALITY

Management of water quality has been a significant issue for the Taranaki Regional Council and its predecessors for the past 40 years. Monitoring has shown:

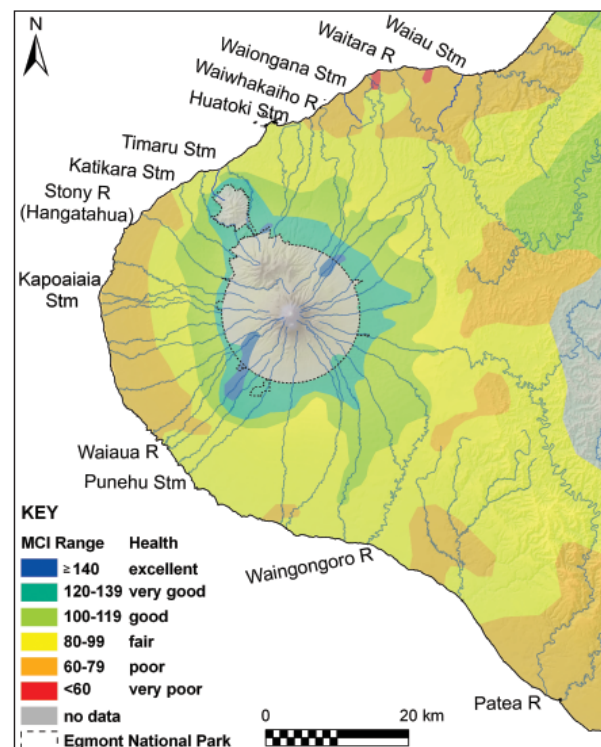
- over the past 12 years, the ecological health of streams (measured by studying the communities of invertebrates living in them) has demonstrably improved at a number of sites, including a number in the middle and lower reaches of catchments, and has not demonstrably deteriorated at any sites;
- measures of ecological health are good to excellent in the upper catchments where there is more stream bank vegetation cover but only fair further down the catchments where land use is more intense;
- the region's fresh water usually meets the bacterial guidelines for swimming, although at certain times of the summer (immediately after a flood event) or in certain catchments (such as the small intensively farmed catchments) water quality may not meet national guidelines;
- the region's water quality comfortably meets guidelines for dissolved oxygen and clarity;



Kaponga farmer Tom Gibson with well-established riparian planting on the banks of the Kaupokonui Stream.

- measures of levels of organic pollution (BOD), bacteriological pollution (faecal coliforms and enterococci) and toxicity (ammonia) are now stable regionally, after past improvements;
- Taranaki rivers are naturally high in phosphorus and so do not meet national guidelines, furthermore levels of phosphorus are generally increasing further; and
- nitrogen levels meet guidelines in the upper reaches of catchments, but not further down, where impacts of agriculture are more intense.

Council officers regularly monitor for compliance with the *Regional Fresh Water Plan* and resource consents, undertaking enforcement action where necessary. Management highlights over the past five years:



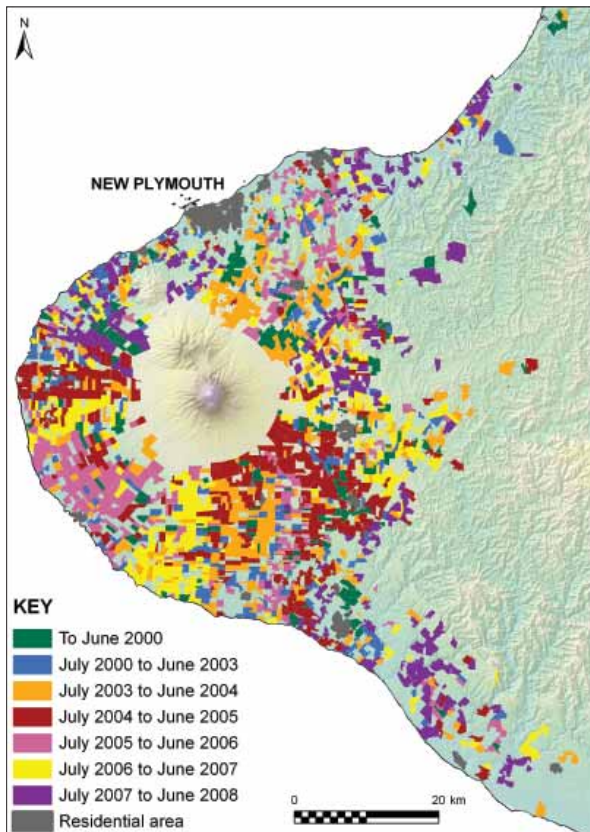
Stream health, as measured by the Macroinvertebrate Community Index (MCI), a measure of ecological health based on the number and type of stream invertebrates.

TARANAKI – WHERE WE STAND



Viewing a black disc to assess water clarity.

- a decline in the number of point source discharges to surface water from 1,612 in 2003 to 1,413 in 2008;
- significant investments made by agriculture, industry and the community in waste water treatment and disposal systems;
- 100% of dairy farms have effluent treatment and disposal systems that are monitored and inspected each year;
- the rate of compliance with consent conditions is high, with an average of 96% of farm dairy discharges complying with consent conditions, and overall, 93% of consent holders showing high or good levels of performance;



Coverage of riparian plans to June 2008.

- a significant growth in the Council's riparian management programme – 2,009 riparian plans have now been prepared (treble the number of plans that had been prepared by 2003 (385), covering a total of 10,818 km of stream bank;
- 1.3 million riparian plants have been provided at low cost to riparian plan holders since 1997; and
- landowners have fenced 504 km and planted 426 km of stream bank through implementing riparian plans, which, added to existing fencing and planting means that 60% of stream bank, on the ring plain under a riparian plan, is fenced, and 43% is vegetated. The Council will continue to promote fencing and planting of ring plain streams to meet the target of 90% of riparian plans implemented by 2015.

FRESHWATER QUANTITY

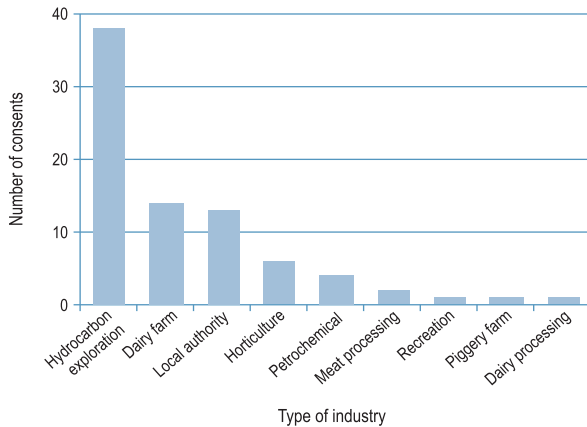
The region is well-endowed with fresh water, having no less than 530 named rivers or streams. For most of the time, there are no significant water use pressures in Taranaki.

Since 2003 the region has experienced some of the biggest floods and lowest flows on record, with floods for the Waitōtara region in 2004 and the May 2007 flash flood event between Ōākura around to Egmont Village. Conversely, the region experienced a drought over the summer of 2007-08, recording extremely low rainfall totals, and low stream flows. The main features of water quantity are that:

- there are 150 resource consents to take and use surface water, and 52 consents to direct and use surface water;
- total surface water use is over 474,371 m³ (the equivalent of 194 Olympic-sized swimming pools) per day;
- the single largest use category is for municipal and rural water supply schemes, with a total allocation of 152,333 m³ per day (1,763 litres per second) or 32% of all allocated water use;
- overall there has been a 7% increase in surface water used since 2003;
- more than 30% of the average low flow is allocated for use in 8% of catchments, but flows at which abstraction must cease are set to safeguard ecological values; and
- interest in irrigation has increased in recent years, especially in the coastal and southern areas of the region.



Boom spray pasture irrigation near Manaia.



Groundwater allocation by use category.

The *Regional Fresh Water Plan* contains provisions to manage water use to protect aquatic life and other values. Measures are required to be put in place to mitigate or reduce the environmental effects of water use and these are closely monitored by the Council.

GROUNDWATER

The region's groundwater is increasingly becoming an important source for domestic, industrial, agricultural and domestic water supply, particularly in South Taranaki. Groundwater systems are complex, being influenced by the nature of geological systems. In summary:

- there are 81 resource consents for groundwater use in Taranaki;
- a total of 1,550 wells are recorded on the Council's database. Most of them are used for farm and domestic water supplies, although it is estimated that a large number of bores are not recorded on the Council's database;
- 44,022 m³ (the equivalent of 17 Olympic-sized swimming pools) of groundwater a day are currently allocated, twice the amount reported in 2003, but still not a significant pressure on groundwater levels;
- the deeper aquifers mostly show less variation in groundwater levels than do the shallower aquifers;
- groundwater quality in Taranaki is generally high, with no problems associated with pesticide residues, microbial contamination or saltwater intrusion and mineral levels reflect the geology of the aquifers;



Field day on riparian planting and wetland protection.

- 94% of the 68 groundwater wells monitored had nitrate levels that met national drinking water standards, although nitrate levels have been found above the guidelines in a few wells tapping into shallow aquifers in South Taranaki; and
- shallow groundwater quality, in terms of nitrate levels, is generally improving.

BIODIVERSITY

Taranaki rivers and streams support a diverse range of native fish and invertebrates. In summary:

- regionally significant wetlands have, on the whole, been adequately protected through formal mechanisms and proactive protection works such as fencing and planting;
- 63 small wetlands have been drained or reclaimed since a study undertaken in 1995;
- over the past five years, consents have been granted for 25.5 km of small stream to be piped underground, and the realignment of almost 7 km of stream for the purpose of land improvement with consequential losses of native fish habitat;
- of 108 structures that have the potential to impede fish passage, 49 provide adequate fish passage, two have been removed and the others need remedial work;
- since 2001, fish passage has been improved over 12 structures; and
- four out of five sites monitored for the threatened brown mudfish show healthy breeding populations.

The Council works with landowners to protect regionally significant wetlands.

PUBLIC ACCESS

Public access to rivers and lakes in Taranaki is often provided by way of public roads, or directly through parks and reserves. However, access to many rivers and stream sites requires the permission of the adjoining landowner. Respondents to several surveys have indicated that public access to freshwater sites is 'about right'. No major constraints on public access to rivers and streams exist in Taranaki.

District plans prepared by the New Plymouth, Stratford and South Taranaki district councils provide for the creation of esplanade reserves and esplanade strips alongside rivers and streams.



Trout fishing on a ring plain stream.



Rob Tucker

Riverlands Chief Executive Trevor Johnston (left) and farmer Russell Joblin.

WIN-WIN DEAL HELPS KEEP WAINGONGORO CLEAN

The inspiration could have come from the name: Riverlands is doing its bit for the environment by diverting discharges from river to land.

The busy meatworks, which sits on the banks of the Waingongoro River at Eltham, has more than trebled its throughput since the mid-1990s and has also taken on the processing of bobby calves.

That level of increase could have been expected to put greater stress on the Waingongoro – but monitoring by the Taranaki Regional Council is in fact suggesting a gradual improvement in the quality of the river water.

Why? Because during crucial summer seasons, when river flows are at their lowest, an increasing amount of treated effluent from the plant is discharged to land via irrigators on a neighbouring dairy farm.

It's the classic win-win: Riverlands keeps its impact on the environment to a minimum and pastures on the Joblin family farm next door get a boost at precisely the time they need it.

"We're very pleased with the arrangement," said the Riverlands Chief Executive Officer, Trevor Johnston. "It's good to keep our own operation as environmentally clean as possible, it's good to work in with a neighbour and it's good that it's going towards boosting production."

Farmer Russell Joblin agrees: "It's been really good for the farm, especially during the dry summer we've just had. It is a real win-win, and it's going to be more important as time goes on."

The soil acts as a living filter for the treated effluent, processing it physically, chemically and biologically. Ultraviolet radiation in sunlight and the drying effect of the elements also have an effect.

And, of course, the spraying brings nutrients and moisture to pastures – crucial for maintaining production in dry summers.

Riverlands' discharges to land began in 2001 and rapidly increased so that by 2005, they accounted for 62% of the plant's annual treated effluent. During this time, bacterial colonies known as 'sewage fungus' have disappeared from the river, and studies of invertebrate populations downstream of the meat plant indicate that water quality may be improving.

The effects of the discharges to land are also monitored and no significant impacts have been detected.

Meanwhile, a resource consent has been approved allowing treated municipal wastewater from Eltham to be piped to Hāwera and then out to sea via the Fonterra Whareroa outfall.

That will bring an end to the discharge of Eltham municipal wastewater into the Mangawhero Stream, a tributary of the Waingongoro River. The new pipeline is expected to be completed in mid-2009.



Rob Tucker

Opunake Beach.

COASTAL AND MARINE ENVIRONMENT

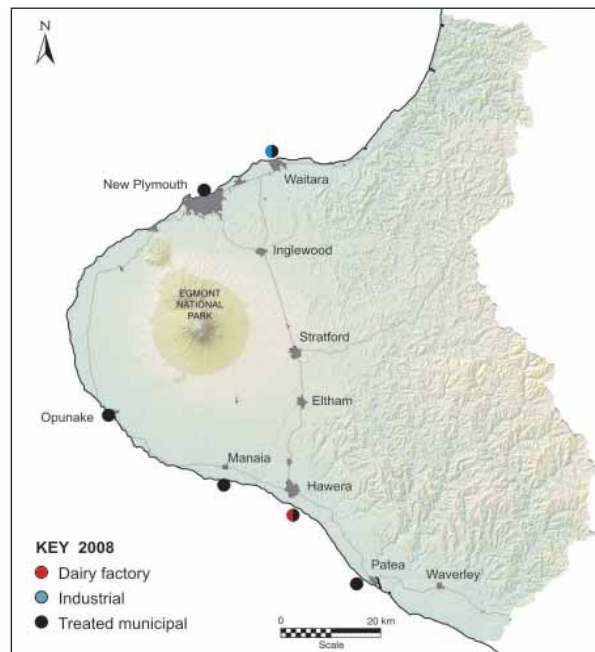
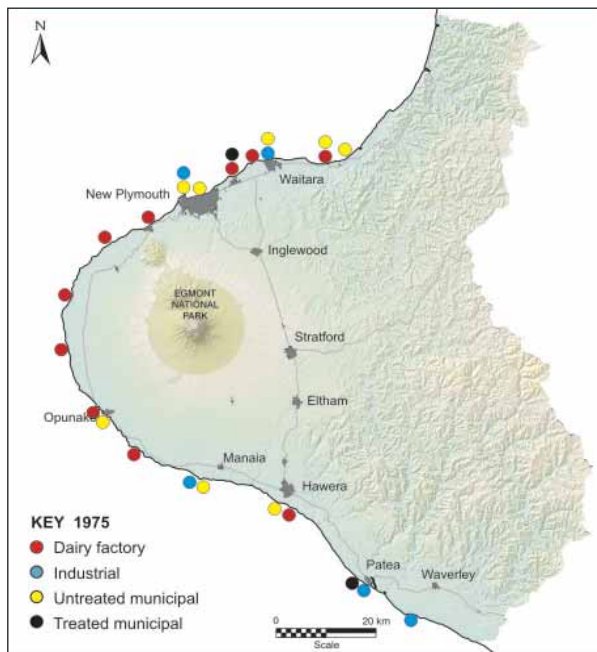
The Taranaki region has a long coastline with rocky shores and cliffs, sandy beaches, subtidal reefs, river mouths and estuaries. Taranaki people value the landscape, natural character and amenity recreational values of the coast. It is particularly significant for local iwi and hapū as kaitiaki or guardians of the coast.

The generally excellent coastal water quality found in Taranaki is the combined result of a low and declining number of point source discharges to the coastal marine area, improvements in waste treatment and disposal options and an exposed coastline with currents and high-energy waves.

COASTAL WATER QUALITY

The Taranaki Regional Council monitors marine ecology, beach bathing water quality and compliance with resource consent conditions. In summary:

- Taranaki's coastal water quality for swimming is excellent, with most popular bathing beaches complying with national bathing standards;
- rocky shore ecological health is reasonably stable at most sites monitored. Sand inundation reduces rocky shore species diversity, but this returns to normal once the sand moves on;
- 43 consents are held for discharges to the coast, but there are now only six major community or industrial treated wastewater discharges direct to coastal waters, compared to some 25 major discharges 30 years ago;
- compliance monitoring shows that significant improvements continue to be made in terms of waste treatment and disposal systems; and



Major point source discharges to the coast in 1975 compared to today, (excluding stormwater and dredging activities).



The spectacular North Taranaki coastline and distinctive fragments of eroded cliffs.



Red moki and encrusting sponges.

- the main influence on coastal water quality now is rivers and streams discharging to the sea, carrying with them the cumulative effects of land uses within their catchments. This is most noticeable from catchments draining the more erodible hillcountry rivers.

NATURAL CHARACTER

The rugged nature of the Taranaki coastal environment means much of the coastal area has retained its distinct natural character. In relation to natural character:

- since the *Regional Coastal Plan* became operative, 238 coastal consents have been granted, reviewed or varied for activities in the coastal marine area; 96 new coastal consents have been granted since 2003;
- most coastal permits are for coastal protection works and stormwater structures, followed by foreshore disturbance and discharges;
- an estimated 11.6 km of seawall have been built to protect the region from coastal erosion; about 2 km of this have been constructed over the past five years;
- activities authorised by resource consents generally have negligible effects on the natural character of the coast; and

- foredune restoration works and sand dumping trials have been conducted to restore natural character to parts of the coast.

The Council's *Regional Coastal Plan* contains policies and methods to protect the natural character of the coastal marine area, and district plans contain policies and methods to protect the natural character of the landward section of the coastal environment.

BIODIVERSITY

The steep cliffs, rocky shores, sandy beaches, subtidal reefs, river mouths and estuaries along the Taranaki coast provide a wide range of ecological habitats for native plant and animal species. Since the last state of the environment report, 3,248 ha have been fully protected in two marine reserves. Monitoring of coastal and marine biodiversity is undertaken by Taranaki Regional Council (estuaries and rocky shore communities), the Department of Conservation (marine protected areas and threatened marine mammals), the Ministry of Fisheries (fish stocks) and the Ornithological Society (birds). In summary:

- ecological conditions in both the Tongaporutu and Waitōtara estuaries are generally stable although they can be affected by severe floods;

TARANAKI – WHERE WE STAND

- more than 70 different bird species use the monitored estuaries;
- the legally protected subtidal habitats around the Sugar Loaf Islands (Ngā Motu) provide shelter for a greater diversity and higher numbers of fish and other organisms than neighbouring areas of reef;
- extensive reef ledges in North Taranaki support a highly diverse collection of rare and exotic sponges now protected from human activities by a marine reserve;
- there are disparate views on trends in local fish stocks, and quality of recreational fishing;
- threatened marine animals are observed in Taranaki waters, including great white sharks, orcas, humpback whales, southern right whales, and Māui's dolphins; and
- reclusive beaked whales have been washed up on Taranaki beaches, enabling scientists to study them.

PUBLIC ACCESS

Generally, the public has very good access to most parts of the coast in Taranaki. A recent inventory of sites of local or regional significance found that:

- 58% had excellent to good public access;
- some sites are physically difficult to access due to high tides or eroding cliffs;
- public roads provide the greatest degree of public access to the coast;

- subdivision offers opportunity for public access to be increased through the provision of esplanade reserves of strips; and
- the biggest constraint to public access is lack of signs or formed roads, and the difficulty of distinguishing between public and private access.

Public access to the coast is primarily protected through district plans. A *Regional Walkways and Cycleways Strategy* has been developed to promote walking and cycling opportunities, including access to the coast, which are best illustrated by the success of the award-winning New Plymouth coastal walkway.



Paragliding, Back Beach New Plymouth.

COAST WILD BUT ALSO VULNERABLE

The harshest of environments can also be vulnerable – as was dramatically illustrated when large amounts of crude oil washed up on the wild and windswept west coast near Ōkato in October 2007. It was the largest ever crude oil spill in New Zealand and the second largest oil spill in New Zealand in recent history.

Residents, iwi and the surfing community were alarmed as nearly 15 km of sand and rocks along the coast were fouled by the waxy oil, mostly in the form of small tarballs that melted in the sun.

Taranaki Regional Council staff began planning the clean-up operations under the *Marine Oil Spill Response Plan* within two hours of the oil being reported. They were later joined by a team from Australian Worldwide Exploration (AWE), which admitted responsibility for a 23-tonne spill from processing equipment associated with the Tūi oilfield it operates 60 km offshore.

While the spill was an unwelcome reminder of the coastline's environmental vulnerability, quick action and fortunate timing kept long-term effects to a minimum.

The oil came ashore on a spring tide, which meant most was deposited at the highest point possible on the beach – well away from the zone where marine life is active.

The waxy blobs were quickly scooped off beach surfaces so the fast-melting oil did not have a chance to penetrate deep into the sand. If it had, a far more extensive and expensive clean-up operation would have been needed.

The oil in the rocks was left to weather and break down, as any clean-up action would have caused more environmental damage. Beaches



Oil spill clean-up.

were monitored after every spring tide and oil that had dissipated from the rocks was cleaned up.

Sea water, sediment and kaimoana samples tested by Council staff and by the Cawthron Institute, the latter under contract to AWE, showed no significant increase in hydrocarbon or metal levels.

A feature of the response to this incident was the close liaison between the Council, other agencies, local residents, iwi and surfers, with all consulted as the monitoring programme was developed.

Coastal landowners were also very co-operative, despite it being a busy time of year for farmers. Council staff were given free access over their properties, and the farmers also made equipment available for the clean-up operation.

Maritime New Zealand has taken legal action over the spill. Both AWE and Prosafe (the operators of the floating offshore production station) have appeared in court and entered guilty pleas. The decision on sentencing was yet to come at the time of printing.



Monitoring air quality in Stratford.

ATMOSPHERE

Overall, Taranaki has excellent air quality. This is because of the region's windy and exposed nature, together with its dispersed and low population, absence of heavy industry and its low number of vehicles. However, air quality in some locations is reduced through point source discharges or diffuse discharges of contaminants to air.

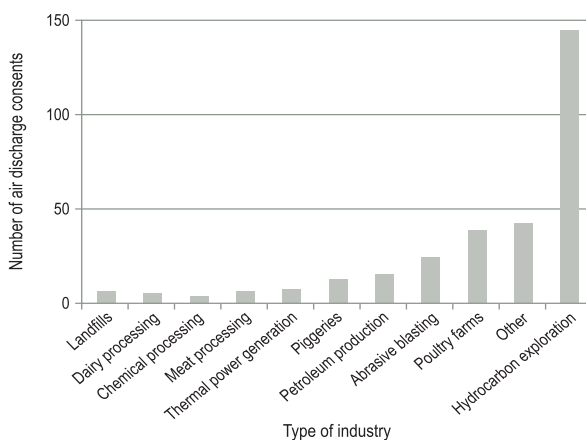
Diffuse sources of emissions are the biggest contributors of emissions to air. These include natural sources (sea spray, vegetation, landcover and farm animals) and human sources such as industries, homes or motor vehicles. Natural sources emit far greater quantities than human sources.

The Council promotes tree-planting and other initiatives that will help to mitigate greenhouse gas emissions, the cause of climate change.

AIR QUALITY

Clean, fresh air is an important and valued part of our quality of life in Taranaki. In summary:

- on the basis of national guidelines, air quality in Taranaki is rated as excellent, enabling the Taranaki community to enjoy one of the healthiest regions in New Zealand in terms of air quality;
- there are no significant widespread pressures on air quality in the region so levels of monitoring of general air quality have been reduced, although the Council still carries out comprehensive monitoring of consented activities;



Air discharge permits held by industry type.

- 306 air discharge permits are held in Taranaki (compared to 230 in 2003);
- consent conditions are generally more stringent, reflecting better control options and heightened community expectations;
- major air discharge permit holders continue to make significant investments in emission controls and production technology; and
- a few concerns exist about specific discharges to air, primarily involving odours, but these are managed, in order to reduce effects on neighbours as far as possible;

The Council's *Regional Air Quality Plan*, which contains policies, methods and controls to maintain and enhance air quality in Taranaki, is in the process of being formally reviewed.

CLIMATE

Gases such as carbon dioxide, methane and nitrous oxide have the ability to trap infra-red energy that would otherwise be radiated off the Earth's surface. The accumulation of these greenhouse gases in the upper atmosphere is leading to global warming and global climate change. Average New Zealand temperatures have increased by 0.3-0.7°C since 1950. In Taranaki:

- the significant sources of greenhouse gases are from agriculture, energy and petrochemical industries;
- industry is the largest source of carbon dioxide emissions and agriculture is the largest source of methane;
- emissions from industry and livestock are decreasing but emissions from soil and fuel use are increasing;
- climate is expected to become marginally wetter overall, with increased frequency of extreme weather events; and
- climate change is expected to result in an increase in pasture productivity and an increase in cropping.

The Government and members of the international community are addressing climate change with a range of initiatives including those to implement the Kyoto Protocol. Initiatives at the regional level include management of point source emissions through the *Regional Air Quality Plan* and advocacy for sustainable land management which may lead to increased tree planting (which will mitigate greenhouse gas emissions) and better management of fertiliser (which will reduce greenhouse gas emissions).



The highest rate of methane generation is from dairy cows.

TARANAKI – WHERE WE STAND



From every angle Mount Taranaki dominates the landscape.

LANDSCAPE, HERITAGE AND AMENITY VALUES

Taranaki's landscapes, historic heritage and amenity values are important aspects of the environment because they contribute to our quality and enjoyment of life. These features or values hold social, emotional, historical or cultural significance and are important economically, attracting many domestic and international visitors to the region.

Mount Taranaki, a landscape of national and international significance, dominates the landscape. Taranaki's rural hillcountry landscapes, coastal and marine natural features and rivers and lakes are also distinctive and highly valued. They form an integral part of the region's identity, natural character and appeal. Many have cultural significance for Māori.

Various use and development activities can impact on landscape, heritage and amenity values. One of the challenges of effectively managing landscape, heritage and amenity values is that it is often hard to define these values. There may also be a lack of information and awareness of important sites or values. Good information is necessary to define sites, areas or values, and advice and assistance to landowners and owners of heritage buildings or structures are required to assist in the protection of these values.

LANDSCAPE

Taranaki has a number of outstanding and regionally significant landscapes. Mount Taranaki, together with the Kaitake and Pouākai ranges, is of national and international significance. Outstanding landscapes are identified in each district plan. For most areas identified in the New Plymouth District, there have been no significant changes since 1995 that have adversely affected landscape qualities. While there have been some developments along State Highway 3 in the past five years, these have not had significant adverse effects overall on



Mimi river mouth.

landscape qualities identified for the Stratford District. South Taranaki District Council is to undertake a landscape assessment of the district.

HERITAGE

The Taranaki region has significant historic heritage resources that provide important links with the past. In summary:

- a total of 1,345 heritage buildings or structures and 1,774 archaeological sites have been identified;
- 193 historic heritage sites are protected by the three district councils through their district plans;
- the New Plymouth District Council has identified 80 Category A heritage buildings which have not been damaged over this period, although a number of Category B and C heritage buildings have been destroyed;
- archaeological sites in Taranaki are susceptible to damage from land uses and development and a number have suffered damage from stock, erosion, bulldozing for farm tracks, or in some cases by earthworks for buildings, roads and quarries.



Manaia Memorial Band Rotunda and old post office building, South Taranaki District.

AMENITY VALUES

Amenity values are those natural and physical qualities and characteristics that contribute to people's appreciation and enjoyment of the environment. Taranaki residents place high value on the region's clean and quiet environment, the scenic, aesthetic and recreational opportunities provided by parks, reserves, farmland, waterways, coastal areas, bush and walkways, a pleasant environment free of nuisance from excessive noise and odour, and attractive development of the built environment.

Over the past five years there has been continued provision, development or upgrading of a number of community recreational and cultural facilities such as events centres, the coastal walkway, public gardens and upgrades of most business districts in the region.



The 'low density' character of the region is an important amenity value.



Visitors explore the splendour of the gardens.

VISTAS COME WITH HISTORY ATTACHED

A major refurbishment at a historic Taranaki property has extended its appeal beyond the attractive gardens and beautiful vistas it has long been known for.

Tūpare, on Mangorei Road at New Plymouth's outskirts, now offers an authentic taste of life in the mid 20th century heyday of the two prominent and strong-willed men who shaped the property's original development.

James Chapman-Taylor, the renowned 'arts and crafts' architect, designed Tūpare's stylish house for businessman Sir Russell Matthews in 1932. Unusually for the architect, though, he relinquished control of its construction to Matthews, who had firm ideas about what he wanted.

The result was a unique stately home with the unmistakable Chapman-Taylor stamp but also reflecting the dreams and aspirations of the innovative Matthews, whose accomplishments included laying the first bitumen road in New Zealand.

Changes crept in over the ensuing years and now the property is owned and administered by the Taranaki Regional Council, which

launched a renovation project in 2007 as it implemented a new management plan.

"We've taken out some of the later influences that have impacted on the house over the years," the Council's Regional Gardens Manager Greg Rine.

"Visitors can now get an authentic insight into the work of James Chapman-Taylor, the vision of Sir Russell Matthews, and the lifestyles of their era. It really cements Tūpare as a cultural and historical attraction.

"They can get a feel for what life was like for the Matthews family back in the 1950s. This is certainly adding depth and character to the functions that the house is hired for."

The work on the house was part of a wider project at Tūpare, which included major restoration work in the hillside property's landscaped garden containing majestic trees, a water feature and extensive plantings in different settings.

The cottage is now the interpretation centre for the property and a gathering point for garden workshops.

The project also included a new car park and gatehouse, new paths and lookouts and a new glasshouse.



Tūpare has been restored to the original Matthews' style.



Flood damage, Waitōtara township, 2004.

NATURAL HAZARDS

Taranaki is subject to a range of natural hazards, the most significant of which are flooding, volcanic activity, earthquakes, high winds, tornadoes and land instability.

Potential increases in the severity and frequency of natural hazards, such as flooding and rising sea levels, are expected as a result of climate change. Rainfall in Taranaki is predicted to decrease in summer and increase in winter with a likely increase in extreme rainfalls through the 21st century as the temperature increases. South Taranaki is likely to become drier on average, in terms of the moisture available for pasture growth, with more frequent droughts. Gale and storm-force winds from the west are likely to increase.

The Taranaki Regional Council operates an extensive river level monitoring and flood warning system, as well as wind and rainfall recorders. In addition, eight seismometers (instruments used to measure earthquakes) are located around Mount Taranaki to monitor potential seismic and volcanic activity. Over the past five years:

- monitoring has shown no volcanic activity;
- four significant flood events and a number of minor events have occurred in the region;
- 102 special weather warnings were issued by Met Services;
- 200-300 earthquakes have been recorded each year in Taranaki, but only a few have been felt; and



One kilometre of forest was destroyed when a lahar breached the Maero Stream on Mount Taranaki. April 2008.

- the swarm of tornadoes that hit Taranaki in July 2007 triggered a declaration of a state of emergency. The emergency response systems functioned well.

Both regional and district plans identify natural hazards and contain controls to reduce hazard risks. Significant hazards and risks to be managed by the Taranaki Civil Defence Emergency Management Group are identified in the *Taranaki Civil Defence Emergency Management Plan*. A volcanic strategy has also been prepared and updated. The Taranaki Regional Council has prepared and updated a flood event standard operating procedure. In addition, community awareness and education on natural hazards, risk reduction measures, and responses are carried out on an ongoing basis.



Clean-up operations after the 5 July tornado hit Ōākura.

TARANAKI COMMUNITY TACKLES TORNADOES

Nature threw a tantrum in July 2007 – and Taranaki mobilised to clean up the mess left in its wake.

Besides the severity and randomness of the damage and the miraculous lack of death or serious injury, a notable feature of the tornado swarm that struck Taranaki in July 2007 was the community response.

Taranaki people may shrug that off but outsiders were impressed. After visiting the badly damaged Ōākura Kindergarten, the then Civil Defence Minister Rick Barker told a media briefing that “there were quite a number of people who were from out of the area helping the Kindergarten because they had kindergartens themselves and said ‘if my kindergarten was damaged like this, I would want other people to come and help me too’.”

An unknown number of tornadoes struck the region on 5 July 2007, a day after one had devastated a building in the New Plymouth CBD. Region-wide, some 73 properties were damaged across a wide area including Motunui, Stratford, Hāwera, Kaponga, Okaiawa, Normanby and Rahotū. But it was Ōākura that bore the brunt of the damage.

Like Rick Barker, Fire Chief Pat Fitzell was impressed with the way the community rallied around in the aftermath. “Not only the community out at Ōākura but the community in greater Taranaki. We’ve had people arriving with hammers, with nails, saying ‘I’m here to help’ from Urenui, from Stratford, from all over Taranaki. So it’s been fantastic,” he said the day after the swarm.

The mess was devastating, enough to awe even those experienced and trained to cope with disasters.

"We saw trampolines up trees," Taranaki Civil Defence Emergency Management Group Controller David Lean said after visiting Ōākura. "We saw glass embedded in steel. Literally embedded in steel.

"We saw a 40 ft container – a fully loaded container – blown some 60 ft down into a swamp. We saw a garage that had been moved 100 m over the neighbour's fence and into a paddock, and the lawnmower was still sitting in the place where somebody parked it . . . how nobody got hurt beats me."

A state of emergency was declared by the Taranaki Civil Defence Emergency Management Group at 8pm on Thursday, 5 July 2007 and terminated at 10am on Saturday, 7 July 2007.

Insured losses from the tornadoes were put at more than \$8 million.

The event was the first major test for a new regional Civil Defence Emergency Management structure in Taranaki and all those involved agreed it worked well. But it was the community as a whole that earned the most credit.

"I just have to say the people of Taranaki have rallied around magnificently," said Rick Barker. "I think they should all take a bow. As a community they have performed just outstandingly. Couldn't have asked for anything better."

WASTE

The term 'waste' describes materials or substances that are no longer needed or have lost their economic value and require disposal. In our increasingly consumer-driven society, with its throwaway philosophy, the management of waste is a major issue, with the challenge being to find new uses for materials no longer required (i.e. recycling) or to find ways of cutting down on the quantity of materials that end up being discarded (i.e. minimising the amount of waste generated). There is also a need to ensure that large volumes of waste can be safely disposed of.

All sectors of the community must be engaged in waste management awareness and implementation. It is no longer a case of leaving it to the local council rubbish truck crew.



The regional landfill at Colson Road, New Plymouth.



Festival patrons sorting waste for recycling at one of the many recycling stations. March 2008.

WORLD OF MUSIC, ARTS AND DANCE – AND RECYCLING

It's quickly become an event that defines Taranaki almost as much as the mountain does. And now WOMAD is adding status and standards to the zero waste campaign.

Thanks to a year of planning and the efforts of 40 volunteers, three-quarters of the almost 15 tonnes of waste material generated in the three-day festival in 2008 were diverted from landfill for recycling or composting.

Festival food sellers were required to use recyclable or biodegradable packaging and utensils, recycling centres were set up around the Bowl of Brooklands site and the volunteers were busy both behind the scenes and also out the front, helping Festival patrons sort their rubbish.

As befitting a festival that promotes harmony, patrons were happy to co-operate and were impressed by the resulting cleanliness of the site.

The Taranaki Arts Festival Trust Chief Executive Suzanne Porter said the effort was hard work but very worthwhile.

"We were really impressed with the volunteer support. Their enthusiasm was contagious and the concept caught on among everyone at the Festival – patrons, artists, traders and staff.

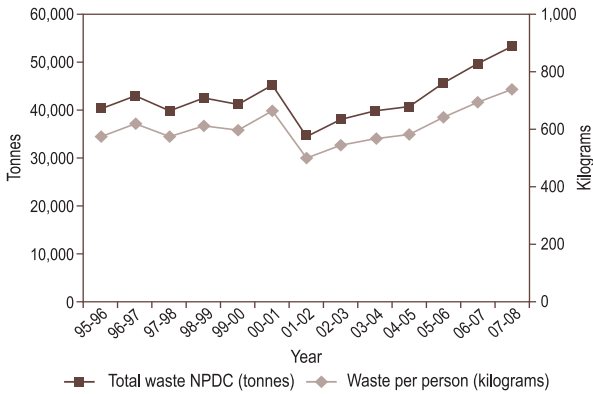
"We're also conscious we've set a benchmark for other large events, locally and nationally. People who were at WOMAD will be expecting to see this elsewhere, so event organisers need to take notice."

The operation was supported by the Ministry for the Environment Sustainable Management Fund, and the success of the Trust and the volunteers was marked with a Taranaki Regional Council Environmental Award.

In Taranaki:

- the whole region is now serviced by just one landfill, at Colson Road in New Plymouth, maintained to 'best practice' standards, with a future site secured. This compares with the situation 15 years ago when the region was serviced by about 20 sites, some of them just 'dumps';
- the quantity of waste discharged to the landfill has increased by 20% between 1996 and 2008;
- increasingly wastes are discharged to cleanfills, which have grown in number from 13 (in 2003) to 23;

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Trends of waste to landfill from New Plymouth District.

- approximately 70,000 used tyres are produced per year, but demand for uses such as silage pit covers and culverts, is matching supply;
- council kerbside recycling collections have expanded in the region with a kerbside green waste collection now being offered in South Taranaki;
- since 1991, the Taranaki Regional Council has collected and disposed of more than 40 tonnes of redundant, unknown or hazardous wastes; and
- waste minimisation and recycling is being promoted in the region and increasingly businesses are taking up the challenge.

The *Regional Waste Strategy* has been prepared and adopted by all four councils in the region. The Strategy provides specific waste minimisation and management goals for local authorities, industry and the community on matters relating to waste minimisation, hazardous wastes and waste disposal.

ENERGY

Taranaki, the energy province, produces energy, from both non-renewable fossil fuels (oil, gas, coal) and from renewable sources such as water (hydro-electricity), wind, solar or biomass.

Under the *New Zealand Energy Strategy to 2050*, the Government proposes to increase the proportion of renewable energy used in electricity generation and transport, reduce reliance on imported fossil fuels, increase energy efficiency and reduce emissions of greenhouse gases from the energy sector. The challenges for Taranaki in the years ahead are to produce energy efficiently and environmentally sustainably from a variety of sources, and then use that energy wisely.



Māui A production platform and supply vessel, offshore from Opunake.

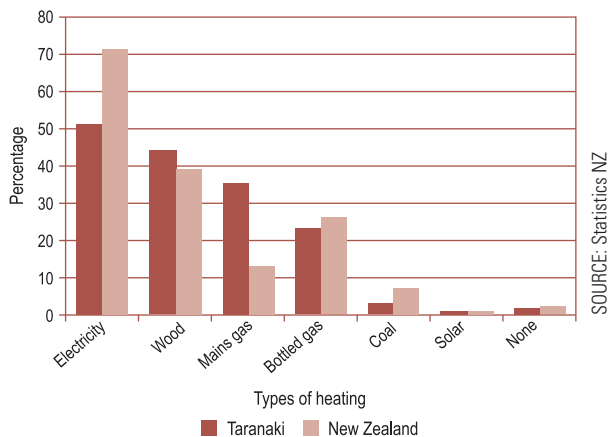


Passengers board a City Link bus, New Plymouth.

The following summarises the key facts about Taranaki's production and use of energy:

- Taranaki accounts for 3.2% of the total energy used in New Zealand;
- all of the oil and gas produced in New Zealand is from Taranaki;
- 477 resource consents have been issued by the Taranaki Regional Council relating to petroleum exploration activities over the past five years and 48 relate to production stations;
- four hydro-electric power generation schemes in Taranaki can produce up to a total of 47 megawatts;
- Taranaki has currently no wind farms, although one has been proposed in South Taranaki;
- industry uses 38% of all energy used in Taranaki, with households using the next greatest proportion (28%);
- petrol use in Taranaki has remained relatively stable over the past six years but use of diesel has increased;
- significantly more use is made of mains gas in Taranaki for home heating (35%) than across New Zealand as a whole (13%); and
- little is known of the state of energy efficiency in Taranaki compared to the rest of New Zealand as no regional data is collected.

Energy production and use is primarily managed by Central Government (e.g. the Ministry of Economic Development). Two national level strategies guide energy development, transmission and use: *The New Zealand Energy Strategy* and the *Energy Efficiency and Conservation Strategy*. At the local level, energy, and effects associated with the production of energy, are managed under the *Proposed Regional Policy Statement*, and regional and district plans.



Percentage of fuel types used to heat private occupied dwellings.



Teacher Warwick Foy and student Abbie Fowler with the environmental award presented by Council Chairman David MacLeod (right).

STUDENTS SWITCH ON TO ENERGY EFFICIENCY

Inglewood High School has been supplementing the three Rs with CGE – conservation, generation and education – in the cause of energy efficiency and sustainability.

They were the three strands of a \$100,000 Enviropower pilot programme at the 380-student school, funded by Venture Taranaki and the Ministry for the Environment and supported by EcolInnovation and EnviroSchools. It was believed to be the first of its kind in New Zealand and it earned a Taranaki Regional Council Environmental Award in 2008.

The most obvious sign of the project is a 10-metre wind turbine in the school grounds, a renewable source for electricity that is used on site. The school also has two sets of solar panels – one to generate electricity and one for water heating.

According to teacher Warwick Foy, the turbine generates about 800 watts on the average breezy day in Inglewood, while the photovoltaic

solar panels can produce 300 to 1,000 watts and the hot water panels can supply the needs of the administration block.

On the conservation side, the school has eliminated unnecessary hot water heating by wrapping, timing and in some cases turning off cylinders. More energy-efficient lighting and computer systems have been introduced and power consumption is constantly monitored, allowing students and staff to see immediately the result of efficiency measures.

Tangible benefits of the year-long project included a 17% reduction in power consumption, exceeding the target of 15%. Biggest gains were made in daytime consumption, especially at weekends. Energy use is down 22% on weekdays and 57% in weekend daytime.

But it's the third strand of the project, education, that was probably the most important, said Warwick.

Students have been involved in many aspects of the project – wrapping the cylinders, digging the turbine foundations and so on – and they have taken real ownership of the project.

That zeal has been taken back to their homes, where they have been monitoring the family power consumption and generally raising awareness and promoting efficiency. This will have real long-term benefits.

The school also incorporated Enviropower aspects in geography, social studies, maths, science and art lessons, with a four-week social studies unit covering issues such as peak oil and gas, global warming, renewable and non-renewable energy and sustainability issues.

The Enviropower project was a great learning experience for all involved, said Warwick. "As we enter into a future of energy and environmental uncertainty, it's good to know that our students will be better prepared."

The programme was designed to support the Government's *Energy Strategy* and Venture Taranaki reported that it was delighted with the enthusiasm demonstrated by teachers, pupils and the wider school community in the project. Venture Taranaki is considering what the next stage will be.



Tahana O'Carroll of Ngāi Tama discusses possum control with Daniel Cuming (TRC).

TOWARDS SUSTAINABLE DEVELOPMENT IN TARANAKI

The purpose of this booklet, and the full document it summarises, has been to report to the community on the state of the environment in the Taranaki region and to record changes since the last state of the environment report in 2003.

The majority of the environmental indicators reported on demonstrate that environmental quality and overall sustainability in the Taranaki region remains high. Significant progress has been made on a number of issues since the last report. Some issues continue to require priority

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Mount Taranaki and New Plymouth.

attention and strategic action from the Council into the foreseeable future, but these are considered to be manageable with continued targeting of appropriate resources to the task.

Many of the programmes described in the *State of the Environment Report 2009* have relied on a combination of methods. The Council has continued to implement its suite of regional plans prepared in the late 1990s – the *Regional Soil Plan*, the *Regional Fresh Water Plan*, the *Regional Coastal Plan* and the *Regional Air Quality Plan*.

These contain formal policies and rules to manage the adverse environmental effects of activities. Resource consents issued in accordance with the plans are monitored and enforced. This is a necessary part of effective environmental management and the Council places considerable emphasis on compliance with the conditions of resource consents to ensure that acceptable environmental standards are maintained.

The combined effect of all the actions noted in this report represents a significant step along the path to sustainable development. Sustainable development, a concept endorsed internationally, as well as nationally, is that which meets the needs of the present without compromising the ability of future generations to meet their own needs. Local Government, along with Central Government, primary producers and industry, communities and other sectors of society, has a pivotal role in educating, mobilising and promoting sustainable development because it is the level of governance closest to people.

The overall approach of the Council to all of its environmental work, however, is encapsulated in its slogan 'working with people, caring for our environment'. The Council has continued to give effect to this slogan and to strengthen it further by getting alongside farmers, landowners, industry and individuals and taking practical actions to protect and improve the environment. This can be seen not only in the sort of actions taken to continuously improve environmental performance through the resource consent process, but also in the efforts of the Council and the community in the very significant voluntary programmes run by the Council such as its riparian, sustainable land management, self-help possum control, and biodiversity programmes.

The positive outcomes in this report towards achieving sustainable management have not come about by mere good fortune or by accident. The Taranaki community can feel justifiably proud of the efforts it has made in recent years to ensure that Taranaki's natural



Sustainable development means looking after the environment for future generations.

resources – vital to our economic and social well-being – are managed for the benefit of present and future generations. These efforts have come at some considerable effort, hard work and serious money. It has been conservatively estimated that over the past five years environmental capital investments on water resources, air and noise, land management, energy efficiency and environmental services totalled \$216.7 million – almost two and a half times the expenditure identified in 2002 for the previous five-year period. Local actions by the community, both proactive and reactive, are perhaps the single most important change towards sustainable development in Taranaki.

However, Taranaki's clean, green image must never be taken for granted. This report does raise concerns regarding the effects of continued intensification of our dairying industry on soil compaction, modification of stream and wetland habitats for land development, and nutrient run-off from pasture with effects on water quality in the lower reaches of our rivers and streams. These pressures will intensify with continued growth in our agricultural sector. They will require ongoing attention and responses. Restoring the riparian vegetation along the length of our rivers and streams is our biggest challenge.

The Taranaki Regional Council is greatly heartened by the extent to which the Taranaki community has moved to embrace environmental stewardship and the concept of sustainability. This bodes well for future issues that will almost certainly challenge us.

The Council believes that sustainable development – a balanced, integrated approach to development that ensures we look after people and the environment in the long term – is the key to prosperity. This will involve working alongside other environmental agencies, farmers, landowners, industries and businesses to bring about practical, positive and permanent results over the next five years and in the decades beyond.

The Taranaki Regional Council welcomes and encourages feedback on the issues discussed in this report – phone 06 765 7127, email info@trc.govt.nz, visit the Taranaki Regional Council at 47 Cloten Road, Stratford or the web site: www.trc.govt.nz. Source references for material in this summary can be found in the full document.



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