



**COASTAL AND MARINE  
ENVIRONMENT**

Photo: Rob Tucker



## COASTAL WATER QUALITY

The high standard of water quality is principally a product of the region's exposed coastal environment, although there have been significant investments in improving discharges to the coast. 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
- the main influence on coastal water quality is now 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 hill country rivers.

The Council's *Regional Coastal Plan*, (made operative in 1997) contains policies and methods to protect the high water quality of the Taranaki coast.

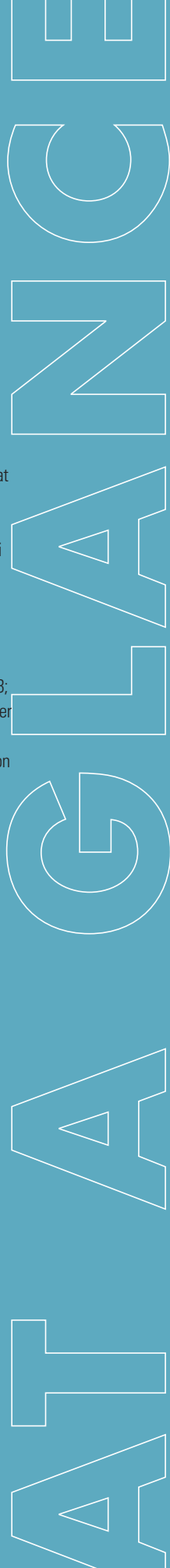


## NATURAL CHARACTER

The rugged nature of the Taranaki coastal environment means much of the coastal area has retained its distinct natural character. Features that contribute to this natural character include natural coastal processes, marine life and ecosystems, coastal landscapes and seascapes, surf breaks, areas of natural vegetation, open space and farmland. Taranaki has an active, high-energy coastline with natural erosion occurring at numerous points. 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 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 over the last five years;
- activities authorised by resource consent generally have negligible effects on the natural character of the coast; and
- foreshore 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. Coastal biodiversity is influenced by currents, the high-energy coast and the nature of the ocean floor substrates. 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;
- 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 under a marine reserve;
- there is a range of disparate views on trends in local fish stocks, and quality of recreational fishing;
- a number of 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.

Coastal and marine biodiversity is managed by a number of agencies operating under various pieces of legislation. It is safeguarded through the *Regional Coastal Plan*, the fisheries quota management system, and through the setting aside of marine reserves or marine protected areas.



## PUBLIC ACCESS

The Taranaki coastal environment offers an extensive and important recreational resource for fishing, diving, swimming, surfing, windsurfing, walking, and boating. 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.



Rob Tucker

Taranaki's western coastline with Cape Egmont in the distance.

## OUR 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 recreational amenity values of the coast. Protecting coastal water quality, the

natural character of the coast and biodiversity are all considered to be very important<sup>1</sup>.

Fitzroy Beach, Ngāmotu Beach, Opunake Beach and the New Plymouth coastal walkway are the most frequently visited coastal locations in the region. Also popular for recreation

are East End, Urenui and Ōnaero Beaches. Walking, swimming and relaxing are the most popular activities undertaken at the coast<sup>2</sup>. The South Taranaki-Whanganui coastline is considered by locals there to be a special area for many reasons, valued for its ruggedness, remoteness, beauty, peace, unspoilt nature and the ability to catch a wide range of fish<sup>3</sup>.

Taranaki's coast is particularly significant for local iwi and hapū as kaitiaki or guardians of the coast. Tangata whenua are particularly concerned that kaimoana (seafood) is protected and that their cultural and spiritual values associated with the coast are maintained. These feelings are captured in the case study on the *Mana Whenua Mana Moana* project.

The generally excellent coastal water quality found in Taranaki is the combined result of few 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. The number of coastal point source discharges in Taranaki has decreased over the past 30 years from some 25 major dairy factory and industrial and municipal discharges in 1975 to just six major point source discharges today (Figure 5.1).

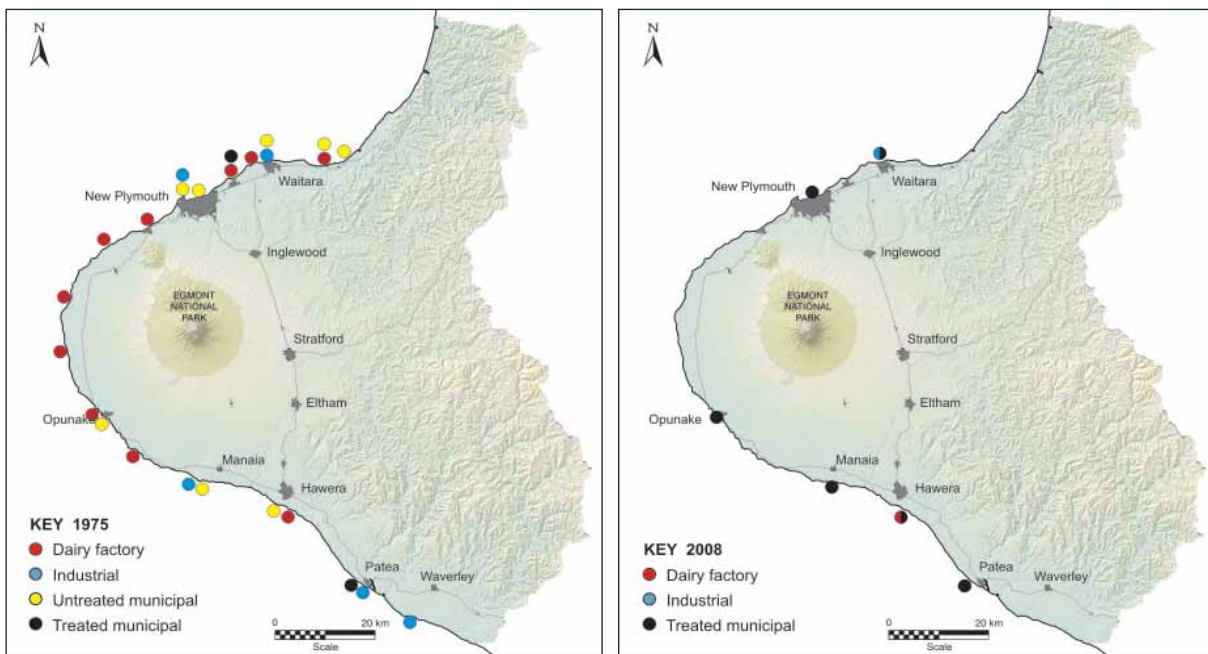


Figure 5.1: Major point source discharges to the coast in 1975 compared to today, (excluding stormwater and dredging activities).

1 Community Outcomes project Team, 2004. *Future Taranaki: A report on community outcomes*.  
 2 Taranaki Regional Council, 2008. *Recreational Use of Coast, Rivers and Lakes in Taranaki 2007-2008*.  
 3 Rush, M. 2006. *Netting Coastal Knowledge: A report into what is known about the South Taranaki-Whanganui marine area*. Published by the Department of Conservation.

Furthermore, improved quality of the few remaining direct discharges is resulting in less pressure on coastal water quality overall.

The main influence now on coastal water quality is rivers and streams that discharge to the sea, carrying with them the cumulative effects of activities within their catchments, including natural erosion materials, urban stormwater run-off, suspended sediments and agricultural and industrial wastes. Inland hillcountry rivers drain sandstone, siltstone and mudstone catchments, and discharge a naturally high load of suspended solids into coastal waters. The effects on coastal water quality are most noticeable after significant rainfall. The short, steep ring plain rivers, particularly those draining eroding headwater catchments, transport considerable amounts of sediment in the form of sand, rocks and boulders to the coast.

Taranaki's natural character is made up of coastal processes, coastal landscapes and seascapes including surfbreaks. Most stretches of the coastline are untouched by significant developments, although there is increasing pressure on coastal areas from urban development and subdivision which also have an expectation for protection from coastal erosion, invariably through protection structures such as sea walls. Industrial development (particularly oil and gas exploration) has also increased in the region over recent years.

Biodiversity of the coastal and marine environment is an integral part of the coast's natural character and is highly dependent on natural processes (e.g. sand movement is critical for sand dune ecosystems and the organisms found in them). Water quality and the nature of substrate play important roles in the maintenance of marine biodiversity. For example, seaweeds which are important nursery areas for fish, grow best where there is clear water.

Management of the coast is under the jurisdiction of numerous agencies and legislation. There are 20 agencies with policy and operational functions relating to the management of the ocean. The key agencies are the Ministry of Fisheries, the Department of Conservation, the Ministry for the Environment, the Ministry of Transport, Maritime New Zealand, regional councils, the National Marine Co-ordination Centre and the Ministry of Economic Development. The district councils manage land use on the landward side of the sea, regional councils prepare coastal plans containing objectives, policies and rules governing activities from the mean high water spring out to 12 nautical miles, the Department of Conservation acts under legislation relating to marine reserves and marine mammals and the Ministry for Fisheries manages fish stocks and fishing (Figure 5.2).

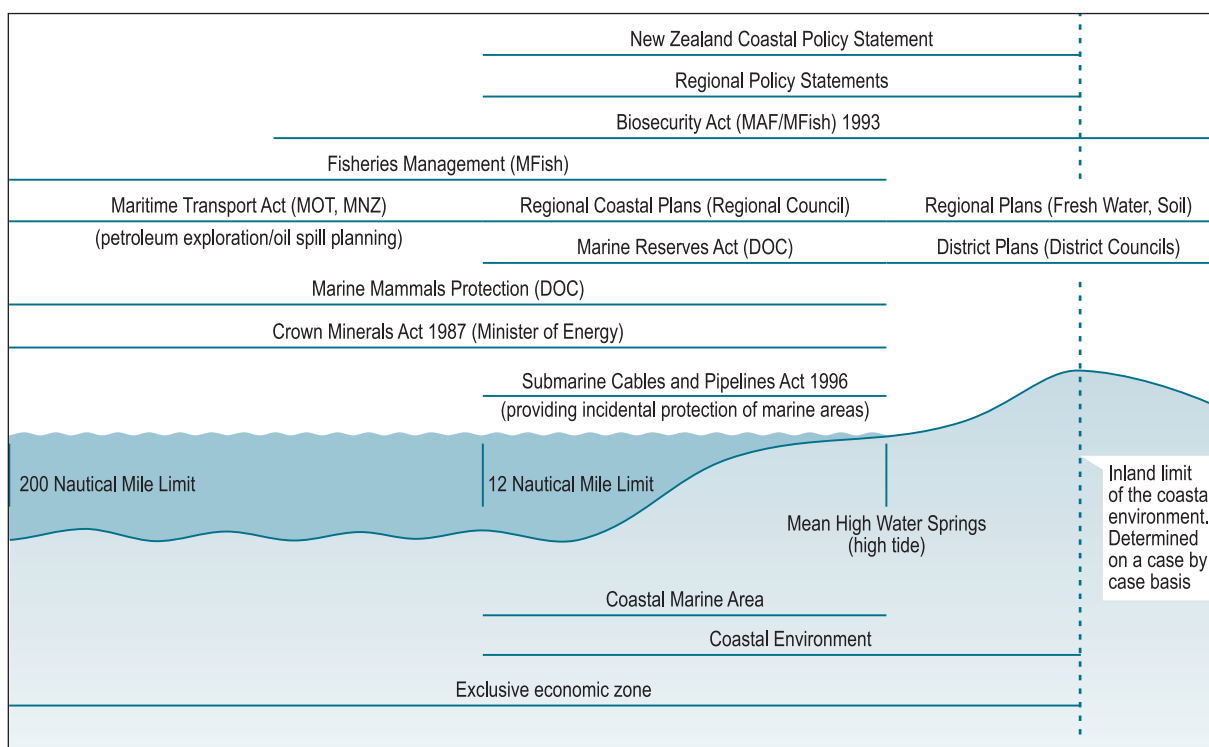


Figure 5.2: Some of the jurisdictional boundaries in the management of the coastal marine area.



The North Taranaki coastline has a rich cultural history and is a source of kaimoana.

## PEOPLE OF THE SEA<sup>4</sup>

Beware the taniwha named Rangitotohu who protects the Taranaki coastline! He snatches passers-by and draws them into his cave if they violate rāhui (temporary restrictions) or are disrespectful when fishing or gathering kaimoana.

That is just one of the fascinating stories woven into a recent report prepared by representatives of tangata whenua of the New Plymouth District<sup>5</sup>. *Mana Whenua Mana Moana* describes issues, opportunities and history of the relationship of iwi with the coast as part of the New Plymouth District Council's Coastal Strategy.

Developed by the Mana Whenua Reference Group, a group of representatives from iwi and hapū around the New Plymouth coastline, the report outlines issues and opportunities within the coastal environment that impact on the protection, enhancement and management of mana whenua aspirations and cultural values. It describes the history of mana whenua through stories about specific coastal areas.

A cornerstone of the report is a practical description of the concept of kaitiakitanga. Kaitiakitanga was traditionally the obligation and responsibility of tangata whenua to be protectors and caretakers of natural resources, including putting in

place such protection methods as rāhui. Today, kaitiakitanga is the responsibility to advocate and practice sustainable development. Members of the group believe that the mistakes of the past pertaining to environmental management will not be repeated if the implementation of kaitiakitanga practices becomes the basis for future sustainable management alongside existing management practices.

And there have certainly been some issues in managing the natural values of the coast in the past.

In 1881 Port Taranaki was constructed close to the Ngā Motu islands. Rock from Paritūtū was blasted away and used for the construction of the port. The shape of Moturoa was altered in the 1920s when the port authority carried out major quarrying. Extensive land reclamation around the port for the construction of the power station and Ngā Motu beach led to the destruction of mussel and pāua reefs and the original beach was drastically altered.

In the 1980s, the Waitangi Tribunal released the Motunui-Waitara Report. The claim was based on the failure of the Crown to properly control discharge of sewage and industrial waste into the sea between New Plymouth and Waitara which adversely affected fishing grounds and caused irreversible damage to a larger area of seabed on which the iwi relied on for food. As a result of this claim, the land-

based treatment plant we have today was installed, protecting the coast from pollution.

The coast has always provided an abundance of kaimoana and this has important cultural value. Feeding guests, and ensuring that they don't go hungry, is one thing, but impressing visitors with an abundance of traditional foods is a symbol of tribal mana and standing.

In North Taranaki, an important feature is the high papa rock cliffs. Several iwi perfected a risky fishing technique for catching makō, snapper and trevally off the ledges hewn out by nature at the bottom of these cliffs. Other sites along the coast have significance to iwi as pātiki (flounder) and tāmure (snapper) breeding grounds, while the reefs have provided iwi with a consistent supply of food resources since time immemorial: pāua, kina, mussels, cats eye, crabs, pipi and many other species.

Coastal sites are not only significant for food gathering, but also for the rich cultural history of the area – battle sites, burial sites and areas that formed part of a complex defence network for battles both before and after Europeans arrived in Taranaki.

Understanding the importance of coastal sites is the first step towards achieving the vision of the report: A cherished environment which through kaitiakitanga, embraces, preserves, protects and enhances the spiritual, cultural and physical values to retain the natural rhythm of river, sea and coastland for future generations.

The first step is for the concept of kaitiakitanga to be understood, valued and supported by local government and the wider community.

If we all work in partnership to look after the coast, we might be able to achieve all of that, as well as keep the taniwha happy.

<sup>4</sup> Tom Hunt and Jack Knuckey were kaitiaki involved in this project whose passing is acknowledged.

<sup>5</sup> Mana Whenua Reference Group, 2006. *Mana Whenua Mana Moana*. Position paper prepared by the Mana Whenua Reference Group. Kaitiaki o Ngāti Tama, Ngāti Mutunga, Te Ātiawa, Ngā Mahanga-a-Tairi for the New Plymouth Coastal Strategy.