Wāhanga tuarima:

Nō Takaroa

Section 5:

Coastal and marine environments

Coastal lagoons	Coastal plants	River mouths
Coastal dunes	Muriwai	Marine mammals
Kaitōrete Spit	Pingao	Estuaries
Rakaia huts	Foreshore and seabed	Coastal tendering
Beach areas	Customary fishing	Ocean

Nō Takaroa - Coastal and marine environment

The boundary of the Te Taumutu Rūnanga takiwā extends along the eastern coast of the South Island, from the Port Hills and shores of Te Waihora along the coastline south to Hakatere (Ashburton River). It spreads to the open sea and eastern coastline of Te Waipounamu. In some areas, ancestral connections to coastal areas are shared with other hapū.

The sheltered coastal areas and fishing harbours along the eastern coast of Te Waipounamu were created by Tūterakiwhānoa, mokopuna (grandson) of Raki, in order to enable human occupation of the land. Coastal areas have remained central to human use and settlement, in terms of mahinga kai, travel routes and pā sites. The coastline from Taumutu to Rakaia was an important north-south route for the ancestors of Ngāi Te Ruahikihiki ki Taumutu. This area, seaward of the Coastal Hazard Line, is now a wāhi taonga management area.

While coastal and marine environments are predominately managed by the Crown, the issue of ownership of the foreshore is unresolved. In many cases, Ngāi Tahu believe that the sea was never ceded. While the Crown has come a long way in recognising tāngata whenua values associated with land, there has been less progress with regards to coastal and marine areas.

5.1 Ngā Mea Hira - *Values*

- Clear coastline
- Mauri of coastal areas
- Ākau (reefs), motu (islands) and tauranga ika (fishing grounds)
- Ara moana (coastal trails and access routes)
- Ability to fish off Kaitōrete Spit
- Sites of past occupation (middens, ovens)
- Whitebait spawning areas
- Long line fishing/raft fishing
- Coastal plants such as pingao
- Kōhanga – paua, mussel, kina and other shellfish
- Extensive history of settlement along the coast
- Wāhi tapu and wāhi taonga
- Wāhi pakanga (places where historical battles took place)
- Muriwai
- Tauranga waka (vessel landing sites)
- Mahinga kai – kaimoana and sea birds
- Urupā
- Waha awa (river mouths)
- Spiritual and cultural significance of the Kaitōrete Spit to the people
- Stories that go with the coast, wāhi ingoa (place names)
- Te Waiomākua is a mahinga kai site on the Kaitōrete Spit

5.2 Ngā Whāinga - *General policy objectives*

- *That the history of tāngata whenua remain on the landscape, through the protection of wāhi taonga, wāhi tapu, mahinga kai and wāhi ingoa.*
- *All mahinga kai must have unlimited access between the rivers and the sea, at all times.*
- *Protection and sustainable management of coastal wetlands.*
- *Protection of kaimoana for future generations.*
- *Protection of coastal dune areas for their ecological significance, and as landscapes that hold tāngata whenua history.*
- *That natural resource management in coastal regions reflect catchment based planning (integration of land and sea) and the continued capacity for future generations to access, use and protect the resource.*
- *Support for further research on coastal erosion and other processes occurring in coastal areas from Kaitōrete Spit to the Rakaia River.*

The Story of Pingao

At the beginning of time there was great conflict between Tane, God of the Forest, and his relation Takaroa, God of the Sea, Takaroa was jealous of Tane, jealous of his success in separating Ranginui the Sky Father from Papatūānuku the Earth Mother.

Tane sought to end the warring between them and as a sign of peace, he plucked out his eyebrows and gave them to Takaroa.

Takaroa could not find it in his heart to forgive and he threw the eyebrows back onto the shore. There they grow today as pingao, the sand sedge, at the boundary between the forest and the sea.

5.3 Ō Te Whenua

The coastal areas of the Te Taumutu Rūnanga takiwā are critical areas. The shores of Te Waihora, Banks Peninsula, the Kaitōrete Spit coastal barrier, and the coastline from Taumutu south to the Rakaia River mouth are significant ecological areas in New Zealand.

People come home to walk along the beach near Taumutu. We have to think of what that coastline and beach provides for them. It is special to them; they need that beach.

5.3.1 Kaitōrete Spit

Kaitōrete Spit is a barrier between Te Waihora and the open sea, and was once an important Ngāi Tahu thoroughfare to and from Horomaka (Banks Peninsula). Oral history and archaeological study show extensive mahinga ka related sites concentrated in the beach dune areas of the spit. Coastal beach dunes are sensitive environments and particularly susceptible to damage.

Ngā Take /Issues:

- Impact of mining, gravel extraction and other land use activities on coastal dunes
- Recognition of coastal values
- Impact on endemic coastal plants such as pingao by recreational vehicles
- Extensive beach erosion, impact on plants and natural landscape
- Spread of marram grass
- Protection of wāhi tapu sites. There are extensive archaeological finds on Kaitōrete Spit.
- The impact of recreational vehicles on coastline, foreshore, coastal dunes and wāhi tapu sites
- Mahinga kai access
- Potential impact on Kaitōrete Spit from lake opening regime

KAUPAPA - POLICY

1. No motorbikes or other recreational vehicles on Kaitōrete spit where they may disturb pingao or wāhi tapu sites.
2. No mining or extractions of sand or gravel on Kaitōrete Spit.

3. When Te Taumutu Rūnanga cannot prohibit activities that have adverse effects on the Spit environment, then it will attach protocols and conditions to any consent application, such as Accidental Find protocols.
4. The re-establishment of pingao in coastal dune areas.
5. Ensure sufficient tāngata whenua access from Kaitōrete Spit to Te Waihora, the sea, and other sites where mahinga kai is accessed for customary uses.
6. Any archaeological finds remain the cultural property of Ngāi Te Ruahikihiki and Te Taumutu Rūnanga. This information is not to be made public unless provided for by the hapū or the Rūnanga.
7. Tikanga Māori shall be observed on all wāhi tapu and wāhi taonga sites.
8. All applications for activities associated with Kaitōrete Spit are subject to Te Taumutu Rūnanga places of significance/wāhi tapu/wāhi taonga management guidelines (Section 5.9).

Kaitōrete is an important location for fishing for tuna. In earlier times, tāngata whenua dug channels from Te Waihora into the spit, and the tuna would enter these channels during their migration. The tuna were then easily caught and stored in paarua (storage pits) ready for further processing.

5.3.2 Coastal areas, beaches and dunes

The coastal area of the Taumutu takiwā is largely comprised of steep gravel and sand beaches. This is a dynamic coastal zone with active coastal erosion.

Agricultural activity occurs along the coastal areas, but is heavily reliant on sea protection measures and drainage schemes. Other land usage includes recreational areas, campgrounds, conservation lands, and public access points.

Ngā Take /Issues:

- Maintenance of peace and tranquillity of coastal areas
- Sensitivity of the coastal environment and impact from intensive agricultural use
- Litter on the beach

- Stock access in coastal areas
- Sea protection measures and drainage schemes
- Conservation lands management
- Recreational activates and impact on coastline and foreshore
- Coastal erosion
- Impact on coastal plants from land use
- Damage to beach dunes, and thus archaeological sites
- Loss of pingao and impact on dunes
- Decline in health of customary food gathering areas and impact on ability of tāngata whenua to manaki (take care of) manuhiri
- Access to beaches and coastlines for customary food gathering
- Gravel and sand extraction - taking gravel promotes further erosion in areas already experiencing coastal recession through erosion

KAUPAPA - POLICY

1. No recreational vehicles on beach areas where they might disturb dune areas, sites of significance, pingao and other coastal plants.
2. No mining/extractions of sand and gravel in the coastal area from Kaitōrete Spit to Taumutu, as it will accelerate erosion processes already occurring.
3. When Te Taumutu Rūnanga cannot prohibit activities that have adverse effects on the coastal environments, then it will attach protocols and conditions to any consent application.
4. Advocate for the re-establishment of pingao and restoration of coastal environments.
5. Te Taumutu Rūnanga Accidental Find Protocols will be attached to significant sites managed by the Department of Conservation and Regional Council, as well as private land.
6. Tāngata whenua shall have access to coastal areas where mahinga kai is gathered for customary uses.
7. That coastal wetland areas shall be protect and restored.
8. That Ngāi Tahu history and use of coastal areas is recognised through the use of wāhi ingoa and the protection of wāhi tapu.
9. That consideration be given to re-nourishing the coastal area between the lake opening site and the Rakaia river, as this area is experiencing extensive coastal erosion.

The coastal environment is protected under the RMA 1991. Section 6 provides for matters of national importance, including

(a) the preservation of the natural character of the coastal environment (including coastal marine areas), wetlands, lakes and rivers and their margins, and the protection of them from inappropriate subdivision, use and development.

5.3.3 Rakaia huts

The Rakaia Huts are located where the Rakaia River meets the sea. The small semi-permanent settlement occupies the highest point of coastal land in the area. The land and waters around the Rakaia River mouth and Rakaia Huts are of special interest to Te Taumutu Rūnanga and Te Rūnanga o Ngāi Tahu historically, culturally and archaeologically. The area around the Rakaia river mouth is a known moa-hunter site. Due to the significance of the area, Te Taumutu Rūnanga has developed specific policies that apply to any activities (e.g. earthworks) undertaken in the area.

Ngā Take /Issues:

- Earthworks and building activity and potential impact on wāhi tapu
- Recognition of the historical association of Ngāi Tahu to the Rakaia River and coastal areas
- Enhancement of nohoanga site at Rakaia
- Access to mahinga kai
- Accidental find of kōiwi tāngata
- Sewage disposal at the huts

KAUPAPA - POLICY

1. Any earthworks, including building, in the area of Rakaia huts requires consent from Te Taumutu Rūnanga.
2. Accidental find protocols will be attached to any consent application.
3. An archaeologist is to be on site when any excavations occur, as recommended by the Rūnanga.
4. If any artefacts of significance are found during any excavation activities, these will be returned to Te Taumutu Rūnanga.

5. If any kōiwi tāngata (human remains) are uncovered, Te Taumutu Rūnanga is to be notified immediately. The Rūnanga will give urgent priority to any such notification so that the resulting disruption to the excavation activity is kept to a minimum.
6. Consistent with the wider Ngāi Tahu policy, Te Taumutu Rūnanga will take full responsibility for seeing that any remains are reinterred appropriately and in full consultation with the police.
7. Due to the large amount of springs in the area and the importance of Rakaia lagoon as mahinga kai, these waterways must be monitored for contamination from any disposal of treated sewage to the land.
8. That consents for sewage disposal at the Rakaia Huts be for a duration of 15 years, with a review every 5 years.
9. That at such time a reticulated sewage system is established for the Rakaia Huts community, all properties will be required to connect to the system.

5.4 Ō Te Wai

5.4.1 Te moana - *the sea*

From the mountains to the sea, the ocean waters are the end of the line. The cumulative effects of upstream and upper catchment land use, discharge and water abstractions are all reflected in the health of a waterway when it reaches the sea.

Ngā Take /Issues:

- Point source discharges into the sea in the form of agricultural chemicals and pesticides, storm water discharge (oil and other toxic heavy metals)
- Discharge of sewage into the sea
- Risk to kaimoana from discharges in the water
- Lights from squid boats and impact on celestial darkness (people have to keep their curtains drawn)
- Access for eels and other fish between rivers and the sea
- Discharges into the sea as a result of agricultural chemicals and pesticides washing down through rivers

- Impacts on the sea from sediments from rivers, as a result of farming practices upstream ad the lack of riparian zones
- Water quality (pollutants entering the sea and coastal lagoon areas)
- Hectors dolphins
- Aquaculture/sea based marine farms
- Beached marine mammals
- Impact on the mauri and life supporting capacity of the sea
- Cumulative effects of runoff by the time it reaches the ocean -- impact on lower catchment by upper catchment activities.
- Impact on sea from discharge from Te Waihora opening activity
- Abstractions from rivers and effect on shingle and beach formation
- Inshore trawling and impact on customary fishery
- Sewage discharge from ships
- Impact on sea bed/profile

KAUPAPA - POLICY

1. Generally no aquaculture off the coast, but will consider on a case by case basis. See box Ngāi Tahu Perspectives on Aquaculture.
2. Protection and enhancement of the mauri of the sea.
3. To undertake further investigation into the impact of discharge of water from Te Waihora into the sea, as a product of the lake opening activity.
4. That no sewage is discharged off the coast into the sea.
5. All mahinga kai must have uninhibited access between the rivers the flow into the sea and the sea, at all times.
6. Active protection of coastal areas for mahinga kai (e.g. long line fishing).
7. Te Taumutu Rūnanga must be contacted and involved, where appropriate, in the recovery operations, disposal and distribution of beached marine mammals and marine mammal materials, in conjunction with the Department of Conservation.
8. That the concentration of inshore trawlers near the Taumutu coastline be of a level as to prevent impact on customary fisheries.

Ngāi Tahu perspectives on Aquaculture and Aquaculture Management Areas

Aquaculture in New Zealand, especially mussel farming, is a growing industry.

Examples of criteria for excluding aquaculture:

-Offshore landforms such as sea mounts, reefs and islands
-Kōhonga, -- pāua, mussel, kina and other shellfish/wetfish
-Dolphin habitat and migration routes
-Kai moana – inshore areas of particular importance
-Tauranga ika – traditional offshore and coastal long line fishing areas
-Waha awa – river mouth areas
-Wāhi tapu/taonga
-Taiapure, mātaitai/rāhui

Examples of Conditions on aquaculture:

-Must be a 500 metre buffer from offshore landforms
-Site specific management plans prepared before starting
-Cultural impact assessments prepared
-Assessment of carrying capacity of surrounding area
-Limited to local species (no importations)
-Provision for cultural harvest
-Length of consents
-Money must be set aside for iwi monitoring
-Ngāi Tahu must be included in any decision making process

Source: Defining Aquaculture Management Areas from a Ngāi Tahu Perspective. Natural Resources Unit, Te Rūnanga o Ngāi Tahu, July 2002

5.4.2 Muriwai and other wetland areas

Historically, the entire length of the coastline between Taumutu and the Rakaia River was a string of wetland areas, although very little remains today. Muriwai (Cooper's Lagoon) is one wetland area that has not been completely drained. In the past, it joined Te Waihora to the east. Muriwai was the place where tāngata whenua caught eels for manahuri (visitors), and thus it had special value as mahinga kai. Under section 184 of the Ngāi Tahu Claims Settlement Act 1998, Te Rūnanga o Ngāi Tahu owns the bed of Muriwai fee simple.

Ngā Take /Issues:

- Decline in health of customary food gathering areas and impact on ability of tāngata whenua to manaki (take care of) manuhiri
- Decline in the number of eels in Muriwai
- Loss of quality wetland habitat
- Maintenance of ability to support mahinga kai
- Impact of exotic weeds
- Discharge of contaminants into wetlands or springs
- Impact on springs from surface takes from other waterways
- Decline in the number of Waipuna (springs)
- Leaching of herbicides and agricultural runoff
- Stock access to wetland areas and tributaries such as the Lee River and Muriwai
- Drainage and impact on fish passage

KAUPAPA - POLICY

1. To ensure that Muriwai and the springs and waterways that are associated with it are protected.
2. No abstractions from springs or waters connected to Muriwai.
3. That efforts are made to restore eel populations in Muriwai and other wetland areas.
4. Restoration of the capacity of coastal wetland ecosystems to support mahinga kai and provide vital ecosystem services.
5. There shall be no further draining of existing wetland areas.
6. That the spread of willow and gorse in coastal wetland areas be controlled, and that restoration occurs with indigenous plant species.
7. Buffer zones of at least 20 m must be observed around any wetland area, with regards to any agricultural activity.
8. No stock access to wetland areas.
9. No discharge of any contaminant within at least 20 m of any wetland area.

Muriwai is a small coastal lagoon that has a permanent outlet (culvert drainage system) to the sea through the beach area. The resource consent granted to Selwyn District Council to put in the drainage culvert at Muriwai was approved by Te Rūnanga o Ngāi Tahu and Te Taumutu Rūnanga with the condition that the activity could not impact fish passage between Muriwai and the sea.

There are concerns that this condition has not been met. In 1995-6 Muriwai was chosen by the Ministry of Fisheries and NIWA as a pilot study on shortfinned eels and the restoration of customary fisheries. It was chosen for its proximity to Taumutu, its importance historically as a customary fishery, existing reports that eels stocks were low, and also because recruitment was seen as likely adversely affected by the culvert drainage system.

A sample of 1919 commercially undersized (juvenile) eels was tagged and transferred from Te Waihora to Muriwai. The study measured the performance of these eels with the growth rates, age and size composition and reproductive status of the resident population of eels in the lagoon.

When Muriwai was surveyed, few shortfinned eels under 10 years of age were found. It was concluded that recruitment has been virtually nil for the past 10 years. Because Te Waihora experienced a large influx of glass eels during that time, the lack of recruitment into Muriwai was attributed to the conditions at the permanent outlet, rather than the lack of glass eels. The study indicated that the it was likely that the flap floodgate at the outlet of the drain connecting Muriwai to McLachlans Culvert was restricting glass-eel elver access to the lagoon. Concluding comments in the final report stated that the long-term best interests of the Muriwai eel population lie in ensuring natural recruitment, rather than the goodwill of locals to transfer juvenile eels.

5.5 Taonga o te Taiao – *Flora and fauna*

As with other regions, coastal regions of the Taumutu takiwā support a diverse range of fish, plants, waterfowl, and other wildlife. These transition zones between land and sea provide habitat for many species not found in other areas. They provide spawning and migration grounds for fish species in the areas where rivers and streams meet the sea. The coastal dune ecosystems of Kaitōrete Spit support the endemic pingao, a sand binding coastal plant only found in New Zealand. Coastal lagoons such as Muriwai support large numbers of bird and fish species with their unique wetland habitats.

5.5.1 Pest control and pest management strategies

Ngā Take /Issues:

- Pest management strategies and pest control in coastal regions
- Role of tāngata whenua in developing pest management strategies
- Spread of exotic weeds such as marram grass, willow and gorse on coastal margins
- Impact on coastal lagoons and other ways from the use of sprays and poisons used to control pest species
- Removal of indigenous species for the enhancement of exotic species
- Protection of the food chain and biodiversity

KAUPAPA - POLICY

1. Te Taumutu Rūnanga shall have input into the definition of "pest species" and all pest management strategies.
2. All pest management strategies should be conducted in such a way as to minimise impact on non target species.
3. Pest management strategies shall focus on running a good process and science and knowledge transfer.
4. Monitoring of all pest management activity for adverse effects on indigenous species shall be a component of all pest management strategies.
5. That the management of waterways for trout and salmon habitat not override the need to protect indigenous species.
6. Marram grass in beach and coastal dune areas shall be controlled, in order to protect pingao and other sand dune ecosystem plants.
7. Large scale spraying of weeds such as gorse should be done in stages, in order to minimise impacts on non target species.
8. Weed species on private coastal land shall be controlled.
9. Soil and vegetation disturbances in coastal dune areas (e.g. recreational vehicles) that allow for the establishment of weed species shall be limited.
10. That those authorities responsible for recreational and conservation reserves on the coastal margins actively control the spread of weed species such as willow and gorse.
11. There shall be no use of poisons near waterways, regardless of the size of the waterway.
12. Te Taumutu Rūnanga shall receive notification of any spraying or other pest management, at least two weeks in advance.

13. Consideration be given to a replanting program for pingao and other indigenous coastal plants in the Taumutu area.

5.5.2 Indigenous flora and fauna

Ngā Take /Issues:

- Protection of taonga and all indigenous species
- Protection coastal dune ecosystems and pingao
- Maintenance of undisturbed habitat for bird life in coastal areas
- Decline in eel populations in Muriwai
- Enhancement of coastal and marine areas for customary use
- Impact on fisheries from pollution discharges at river mouths
- Impact on coastal spawning areas from drainage and pollution
- Lake edge indigenous vegetation are dependent on periodic inundation
- The need to retain wetland habitat in order to support other indigenous flora and fauna
- Access to mahinga kai and other resources of significance to tāngata whenua
- Loss of coastal wetland habitat and eels
- Research collection permits for indigenous species
- Beached marine mammals

Pingao (*desmoschoenus spiralis* or golden sand sedge) is a indigenous sand-binding, dune building plant.

Pingao is not found anywhere else in the world. It has now declined to the extent that it has dispapeared from many areas in NZ, and is vulnerable elsewhere. Increasing pressure from recreational use, grazing, fire, introduced invasive plants coastal reclamation and sand mining have all contributed to the reduction of pingao in coastal dune environments.

KAUPAPA - POLICY

1. All management decisions must take into account the preservation and survival of indigenous species of flora and fauna (rare and common) in their natural habitats/ecosystems.
2. All mahinga kai must have access to and from the sea, river mouths and coastal wetlands, especially during spawning and migration periods.

3. Te Taumutu Rūnanga opposes any needless destruction of culturally significant plants such as raupō, harakeke, wīwī and toetoe and pingao.
4. Any impact/removal of indigenous vegetation on a mahinga kai site is limited to that undertaken by tāngata whenua, for mahinga kai purposes.
5. Advocate for habitat enhancement and reintroduction of indigenous species programmes.
6. Protection of taonga species.
7. All kōhanga (breeding and spawning sites) must be protected.
8. All research on, about or within the takiwā, that relates to culturally significant flora, fauna, places or other resources, shall include provisions for consultation with Te Taumutu Rūnanga (see Part IV, 4.10 and 4.11).
9. Te Taumutu Rūnanga must be contacted and involved, where appropriate, in the recovery operations, disposal and distribution of beached marine mammals and marine mammal materials, in conjunction with the Department of Conservation.

"...Muriwai is a very important place to tāngata whenua. This is place where we caught eels for the visitors (manahiri). This place has changed now. There is silt in it now, and it is not as deep, and there are no more eels (except for the ones Fish and Game released in there)." -- Uncle Pat Nutira, Te Taumutu Rūnanga

".... The better eels were from Muriwai and the whitebait at Coopers Lagoon. When we used to go whitebaiting, we would drive the horse and cart down to the beach to Coopers Lagoon and go whitebaiting there, because the Lake wouldn't be open at Lake Ellesmere. If the Lake was open, you could stand in our kitchen and look down at the Lake Opening... if the seagulls were dipping you knew to run your net down to the Lake, catch a feed, run home again and they would still be alive". -- From interview with Aunty Ake Johnson, in The Nature and Extent of Te Waihora Customary Eel Fishery, Te Taumutu Rūnanga

"...I liked it when fishing for tuna at Muriwai. The tuna there are a very special tuna with a different colour and even size. The skin was a golden colour different to the ordinary black eel. When we used the patu to kill the eels, it was important to strike just below the head as every useful part of the flesh should not be damaged. If it was marked or damaged these could be seen when you pawhara the eel. When served to manuhiri or given as a koha you wanted them to see the lovely golden colour of the flesh."-- Ruku Arahanga, in The Nature and Extent of Te Waihora Customary Eel Fishery, Te Taumutu Rūnanga