

"J"

Reprint
as at 19 November 2004



**Water Conservation (Mohaka
River) Order 2004**

(SR 2004/397)

Silvia Cartwright, Governor-General

Order in Council

At Wellington this 15th day of November 2004

Present:

The Right Hon Helen Clark presiding in Council

Pursuant to sections 214 and 423 of the Resource Management Act 1991, Her Excellency the Governor-General, acting on the advice and with the consent of the Executive Council, makes the following order.

Note

Changes authorised by section 17C of the Acts and Regulations Publication Act 1989 have been made in this reprint.

A general outline of these changes is set out in the notes at the end of this reprint, together with other explanatory material about this reprint.

This order is administered by the Ministry for the Environment.

1

This is the exhibit marked "J" referred to in the affidavit of Toro Edward Waka
affirmed at NAPIER this 17TH day of FEBRUARY 2014
before me Signature [Signature]

A Solicitor of the High Court of New Zealand / Justice of the Peace

Hilton F. Verry
Solicitor
Napier

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Order

- 1 Title**
This order is the Water Conservation (Mohaka River) Order 2004.
- 2 Commencement**
This order comes into force on the 28th day after the date of its notification in the *Gazette*.
- 3 Interpretation**
In this order, unless the context otherwise requires, **Act** means the Resource Management Act 1991.
- 4 Outstanding characteristics and features**
The Mohaka River and its tributaries include the following outstanding characteristics and features:
 - (a) an outstanding trout fishery in the mainstream upstream of the State Highway 5 bridge and in the tributaries; and
 - (b) outstanding scenic characteristics in the Mokonui Gorge; and
 - (c) outstanding scenic characteristics in the Te Hoe Gorge; and
 - (d) an outstanding amenity for water-based recreation from the State Highway 5 bridge to Willow Flat.
- 5 Waters to be protected**
Because of the outstanding characteristics and features described in clause 4, or because of the contribution of the waters

to those characteristics and features, the following waters of the Mohaka River are protected in the manner specified in clause 6:

- (a) all waters in the areas described in clause 4(a) and (b); and
- (b) all waters described in clause 4(c) and all waters contributing to the waters in the Te Hoe Gorge that are upstream of the northern end of the Te Hoe Gorge; and
- (c) all waters in tributaries not covered in paragraph (b) from the State Highway 5 bridge to the upstream end of the Mokonui Gorge, except for those waters downstream of the southern end of the Te Hoe Gorge.

6 Manner of protection

- (1) No water permit under the Act may be granted to dam the waters described in clause 5 or to dam any other waters of the Mohaka River system that would affect the level of the waters described in clause 5, except where—
 - (a) the dam does not detract from the outstanding characteristics and features described in clause 4; and
 - (b) the dam is less than 3 m in height; and
 - (c) the dam is situated on a tributary.
- (2) Water permits may be granted and rules made for other water uses provided that their exercise does not detract from the outstanding characteristics and features described in clause 4.

7 Scope of order

- (1) Nothing in this order may be construed as limiting any right to the use of water for domestic needs, for the needs of animals, or for or in connection with firefighting purposes.
- (2) Water permits may be granted and rules made, under the Act, for the purposes of—
 - (a) the removal of gravel;
 - (b) the construction, maintenance, or protection of roads, bridges, river crossings, pylons, and other necessary public utilities;
 - (c) soil conservation or river protection.

-
- (3) However, the exercise of any authority referred to in subclause (2) must not detract from the outstanding characteristics and features described in clause 4.

Diane Morcom,
Clerk of the Executive Council.

Explanatory note

This note is not part of the order, but is intended to indicate its general effect.

This order, which comes into force on the 28th day after the date of its notification in the *Gazette*, declares that the waters described in *clause 5* are to be protected because of their outstanding characteristics and features. The order specifies how the waters are to be protected.

177°59.00'E) in the north, and Blackhead Lighthouse (at 40°13.2'S and 176°47.2'E) in the south, or from the waters within 1 000 metres of the coast of Portland Island or the waters within 1 000 metres of the coast of East Island.

Regulation 10: amended, on 1 October 2009, by regulation 16 of the Fisheries (Central Area Commercial Fishing) Amendment Regulations (No 2) 2009 (SR 2009/241).

Regulation 10: amended, on 1 October 2001, by regulation 4 of the Fisheries (Central Area Commercial Fishing) Amendment Regulations (No 3) 2001 (SR 2001/261).

11 Taking of finfish from Wairoa Hard prohibited

No person shall take any finfish from all those waters of Hawke Bay enclosed by a line commencing at the mouth of the Moeangiangi River at a point 39°14.75'S and 177°01.32'E; then in a south-easterly direction to a point 39°16.6'S and 177°07.6'E; then in a north-easterly direction to a point 39°11.3'S and 177°21.2'E; then in a north-westerly direction to the Waihua River mouth to a point 39°05.51'S and 177°17.60'E; then along the mean high-water mark to the northernmost bank of the mouth of the Mohaka River (at 39°07.03'S and 177°11.03'E), then by a straight line to the southernmost bank of the mouth of the Mohaka River (at 39°07.22'S and 177°11.03'E); then along the mean high-water mark to the point of commencement.

Regulation 11: amended, on 1 October 2009, by regulation 17(a) of the Fisheries (Central Area Commercial Fishing) Amendment Regulations (No 2) 2009 (SR 2009/241).

Regulation 11: amended, on 1 October 2009, by regulation 17(b) of the Fisheries (Central Area Commercial Fishing) Amendment Regulations (No 2) 2009 (SR 2009/241).

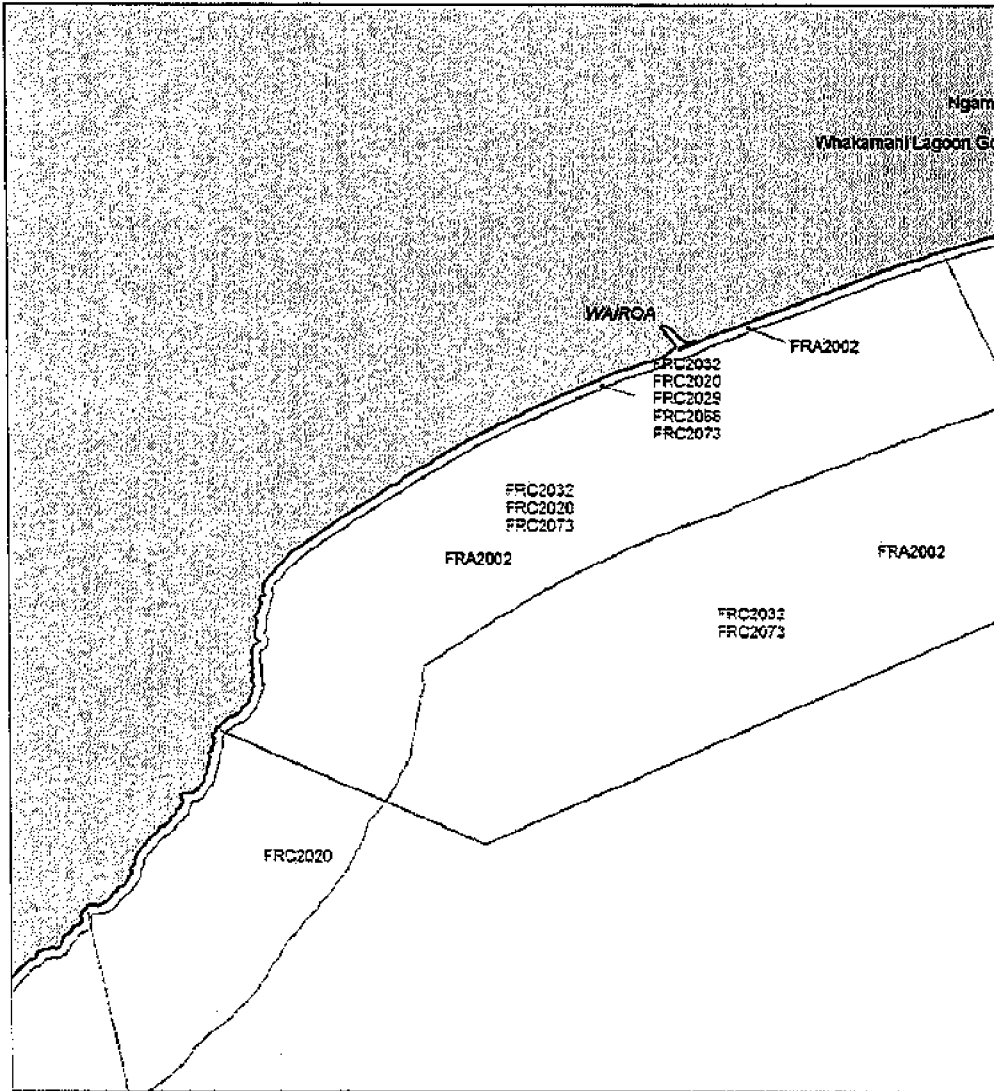
Regulation 11: amended, on 1 October 2009, by regulation 17(c) of the Fisheries (Central Area Commercial Fishing) Amendment Regulations (No 2) 2009 (SR 2009/241).

12 Shellfish prohibitions

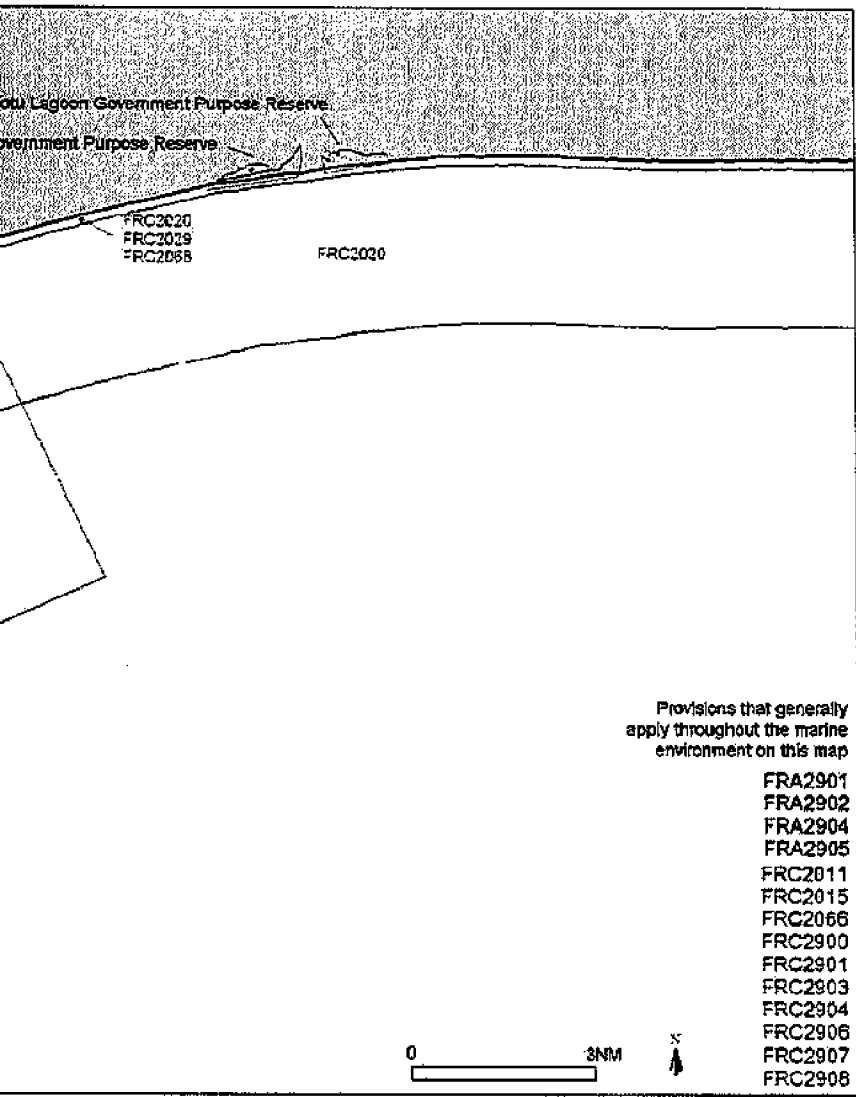
- (1) *Paritu to Nuhaka River*: no commercial fisher shall take or have in possession any shellfish (except rock lobsters) taken from the area below the mean high-water mark between Paritu (at 38°56.90'S and 177°54.23'E) and the mouth of the Nuhaka River (at 39°03.5'S and 177°45'E), or from the waters within

This is the exhibit marked "K" referred to in the affidavit of Toro Edward Waaka affirmed at NAPIER this 7th day of FEBRUARY 2014 before me Signature [Signature] Solicitor [Signature]
A Solicitor of the High Court of New Zealand / Justice of the Peace

Wairoa Hard



These maps are a guide only and should not be relied upon for determining actual boundaries.



Government Purpose Reserve
Government Purpose Reserve

FRC2020
FRC2019
FRC2068

FRC2020

Provisions that generally
apply throughout the marine
environment on this map

- FRA2901
- FRA2902
- FRA2904
- FRA2905
- FRC2011
- FRC2015
- FRC2066
- FRC2900
- FRC2901
- FRC2903
- FRC2904
- FRC2906
- FRC2907
- FRC2908

0 3NM



Wairoa Hard

Explanatory table for restrictive provisions as at February 2004

Provisions that apply to part of the map*

Code/category	Location or name	Description of restriction
FRA2002	Wairoa Hard	No person shall use a net for taking finfish (amateur)
FRC2020	Lower North Island	No commercial fisher may use a Danish seine net
FRC2029	Cape Runaway to Blackhead Lighthouse	No commercial fisher shall take or possess any paua or mussels
FRC2032	Wairoa Hard	No person may take any finfish (commercial)
FRC2068	Cape Runaway to Blackhead Lighthouse	No person may take paua (commercial)
FRC2073	Wairoa Hard	No person shall take finfish (commercial)
Wildlife management reserve	Ngamotu Lagoon #	See table
Wildlife management reserve	Whakamahi Lagoon #	See table

* There may be additional protected areas administered under the Reserves or Conservation Acts, where small portions lie within the intertidal.

Map shows general location of this provision rather than exact boundaries because the areas concerned are small relative to the scale of the completed map. This provision may straddle MHW (mean high water) and so may only partly lie in the marine environment

Provisions that generally apply throughout the mapped area

FRA2901	Amateur maximum daily number of fish by species that can be taken or possessed by one person in any day
FRA2902	Amateur minimum mesh size for catching different species of fish
FRA2904	One person may set or possess a maximum of 3 rock lobster pots; where two or more people on a vessel a maximum of 6 pots can be set
FRA2905	No person can take or possess snapper <27cm length (amateur)
FRC2011	No commercial fisher shall use a trawl net towed by more than one vessel
FRC2015	No commercial fisher shall use any New Zealand vessel >46m in length for trawling
FRC2066	No person shall use a trawl net towed by more than one vessel
FRC2900	Commercial fishing minimum mesh size by species fished
FRC2901	No commercial fisher shall use or possess a set net with a total length >500m, unless either (a) the net is set in waters greater than 30m deep and no part is within two metres of the water surface; or (b) where the net is set in waters less than 30 metres deep or the upper part of the net is within two metres of the water surface, then the net is to have surface floats not more than 500 metres apart
FRC2903	No commercial fisher shall take kina for sale except by hand harvest
FRC2904	No commercial fisher shall take any sea cucumber for the purpose of sale, except by hand gathering. No more than 15 tonnes may be taken in a fishing year.
FRC2906	No commercial fisher may take any paddle crab with external eggs
FRC2907	No commercial fisher may use methods other than hand gathering or pots to fish for octopus or hagfish. This does not apply to any commercial fisher lawfully fishing for rock lobster or where octopus or hagfish are caught as bycatch.
FRC2908	No person may take seaweed except by hand gathering. Unattached seaweeds from Rhodophyceae are not included.

SA 14 Wairoa Hard

Site Name: Wairoa Hard
Site Number: Hawke's Bay SA 14
Map Reference: NZMS 262-07-866216
NZMS 260-W20-690170

BRIEF LOCALITY DESCRIPTION AND SUMMARY

The Wairoa Hard is a very large area extending along the coast from the mouth of the Moeangiāngi River to the mouth of the Waihua River (24 km), and offshore to a depth of 35-45 m (approximately 11 km). It is characterised by coarse marine sediments (i.e. those with a significant pebble and/or cobble fraction), and is recognised as a significant snapper nursery area.

BOUNDARY OF SIGNIFICANT AREA

That part of the Coastal Marine Area enclosed by a line commencing at the mouth of the Moeangiāngi River at point 39°14.9'S and 177°01.4'E; then proceeding in a southeasterly direction to a point 39°16.6'S and 177°07.6'E; then proceeding in a northeasterly direction to a point 39°11.3'S and 177°21.2'; then proceeding in a northwesterly direction to the Waihua River mouth at a point 39°05.7'S and 177°17.1'E; then proceeding along the line of Mean High Water Springs to the point of commencement.

PRINCIPAL REASONS FOR THE OBJECTIVES

1. *Maori Cultural Values*

The iwi of Ngāti Kahungunu consider the entire Coastal Marine Area to be of significance to Maori (Hawke's Bay Regional Council, 1994).

Coastal pa and settlement sites were situated at Waihua, Mohaka, Waikari and Arapaoanui. A coastal track used by Maori, and later by European settlers, extended from Waipatiki to Waikari, and burial sites are situated between Arapaoanui and Waikari (Guthrie-Smith, 1921; Henriques, et al., 1990). The inshore environment all along the coast continues to be an important source of kaimoana (Henriques et al., 1990).

2. *Ecosystems, Flora and Fauna Habitats*

The benthos of the Wairoa Hard has not been studied in any detail. However, New Zealand Oceanographic Institute grab samples described by McKnight (1969) indicate that the coarse sediments of the Hard support distinctive infaunal communities (i.e. *Tawera spissa-Venericardia purpurata* and *Glycymeris laticostata-Venericardia purpurata* assemblages). Limited underwater observation has revealed a series of low relief reefs, projecting above the sediment in the southern part of the Hard (Central Fishery Management Planning Team, 1987a).

The Wairoa Hard is recognised as a significant snapper (*Pagrus auratus*) nursery within the MAF Fisheries Central Region (Central Fishery Management Planning Team, 1987a, 1987b). In addition to snapper the juveniles of a wide range of other inshore fish species also use the area as a

nursery. These include hammerhead shark (*Sphyrna zygaena*), bronze whaler (*Carcharhinus brachyurus*), school shark (*Galeorhinus galeus*), rig (*Mustelus lenticulatus*), John Dory (*Zeus japonicus*), trevally (*Pseudocaranx dentex*), red moki (*Cheilodactylus spectabilis*), blue moki (*Latridopsis ciliaris*), hapuku, (*Polyprion oxygenios*) and common warehou (*Seriotelebra brama*) (Pearson, pers. comm.).

The Wairoa Hard is protected as a fish nursery habitat by Fisheries Regulations that close it to all forms of commercial fishing, except crayfishing, and prohibit recreational set netting (Central Fishery Management Planning Team, 1987a, 1987b).

3. **Marine Sediments and Associated Processes**

The Wairoa Hard is the largest of two significant occurrence of off-shore gravels in Hawke Bay. The second runs for only 8 km between the mouth of the Tukituki River and Cape Kidnappers, and extends offshore to a depth of only 18-27 m (Pantin, 1966).

Both are believed to represent fluvial sediments brought down by the Mohaka and Tukituki Rivers, and deposited as flood plains during the low stand of sea level in the late Pleistocene. During the subsequent rise in sea level these would have been reworked into beach gravels. The porous nature of the beach deposits allowed sand and mud deposited after they were submerged to percolate down through the interstices, leaving the gravel exposed at the surface (Pantin, 1966).

OBJECTIVES

1. Protection of the habitat of the Wairoa Hard;
2. Preservation of those physical and biological features of the marine environment that either individually, or collectively contribute to the significance of this area as a fish nursery habitat.

REFERENCES

Central Fishery Management Planning Team (1987a): *Regional Background Discussion Paper on Areas to be Investigated for Proposed Marine Protected Areas in the Central Fishery Management Area*. Unpublished report, reference copies lodged in Ministry of Agriculture and Fisheries Central Library, Wellington.

Central Fishery Management Planning Team (1987b): *Proposed Central Fishery Management Plan Phase 1: Marine Finfish (b) Policies, Objectives and Controls*. Unpublished, reference copies lodged in Ministry of Agriculture and Fisheries Central Library, Wellington.

Fisheries (Central Area Commercial Fishing) Regulations 1986, 1986/217.

Guthrie-Smith, H. (1921): *Tutira: The story of a New Zealand sheep station*. William Blackwood & Sons Ltd., Edinburgh & London, 3rd ed. (1953).

Hawke's Bay Regional Council (1994): *Minutes of a Meeting of the Maori Committee, Napier, 26 April 1994*.

Henriques, P. R.; Binmore, H.; Grant, N. E.; Anderson, S. H.; Duffy, C. A. J. (1990): *Coastal Resource Inventory First Order Survey Hawke's Bay Conservancy*. Department of Conservation, Wellington, 78pp.

McKnight, D. G. (1969): *Infaunal benthic communities of the New Zealand continental shelf*. New Zealand Journal of Marine and Freshwater Research, 3: 409-444.

Pantin, H. M. (1966): *Sedimentation in Hawke Bay*. New Zealand Department of Scientific and Industrial Research Bulletin 171 (N.Z. Oceanographic Institute Memoir No. 28.), Wellington, 71 pp.

Personal Communication: *B. Pearson*, former Fisheries Officer and commercial fisher.

“L”



Kopututanga Taonga o Te Wairoa
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(06) 838-3108
info@wairoamuseum.org.nz
www.wairoamuseum.org.nz

6th November 2014.

To whom it may concern.

Wairoa Museum continues to foster a positive working relationship with Ngati Pahauwera, which began several years ago. The following is a list of taonga the Wairoa Museum holds with Ngati Pahauwera provenance or relevance. These taonga are cared for by the Wairoa Museum under several different arrangements.

Photographs



Many images of people, Mohaka, the Mohaka Viaduct, the Mohaka river, Raupunga, Waihua, Waikare and Putorino - all of which fall in the Ngati Pahauwera domain. The above is a selection of these. Donated to the Wairoa Museum.

Tumatarao Memorabilia



This collection consists of mementos sent home from overseas by the Tumatarao brothers during WWII. On deposit with semi-formal arrangements with the custodian of these taonga.

Stone Sinker Z10568



Ownership awarded through Taonga Tuturu legislation to Ngati Pahauwera Development Trust. On deposit, for safe-keeping, from Ngati Pahauwera Development Trust to Wairoa Museum.

Conch & harakeke kono



Cara Bennett
Solicitor
Napier

This is the exhibit marked "L" referred to in the affidavit of Tara Edward Reginald Waaka affirmed at
Napier this 5th day of
December 2014 before me
Signature: 
A Solicitor of the High Court of New Zealand / Justice of the Peace

Presented to Ngati Pahauwera at one of their settlement signings. On deposit, for safe-keeping, from Ngati Pahauwera Development Trust to Wairoa Museum.


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St. Georges Church Bible 84/55



Presented to St George's Church, Mohaka by R. Norman Strachan 24th April 1880. Donated to the Wairoa Museum.

Toki 97/44



Found on knoll above seaside of Kakaka Creek, Mohaka. Found approx 300mm below ground, the knoll is one of two that may be the Waiparuparu Pa site. Donated to the Wairoa Museum.

Reti-board 84/525/2



This reti-board has no provenance. Donated to the Wairoa Museum.

Crabtree Fossil Collection



Collected from Mangahouanga Stream. Fossils of New Zealand dinosaurs over 65 million years old. Purchased by the Wairoa Museum.

Yours faithfully,



Mike Spedding, Director.

"M"

Grant of \$2m for restoring waterways



A two-million-dollar river restoration fund from the Government to Ngati Pahauwera Development Trust provides an exciting opportunity to bring money into the community and achieve wiser land use, said the trust's chairman.

"We have been talking about this for so long — it's both great and exciting for us to finally have the money," said trust chairman Toro Waaka.

The funding will see 100 kilometres of waterways fenced off and riparian land along the waterways planted in natives to filter nitrates and phosphates from groundwater before it enters the waterways.

A supervisor will manage the fencing contracts, starting this month, and it is expected to take around two years.

The Mohaka, Waikare and Waihua rivers will all benefit from this grant, said Mr Waaka.

Mr Waaka said people relied on rivers, streams and springs for their daily need including drinking water but with the advent of intensive farming, a lot of these areas have been polluted from the headwaters down.

The trust and the Hawke's Bay Regional Council have been working to reduce effluent going into the waterways.

"We saw up there how bad some farmers were in terms of managing their dairy stock," Mr Waaka said.

"We would oppose any dairying in the lower half of the Mohaka River.

"Environmental issues and human need come first.

"Throughout the Hawke's Bay at certain times it's unsafe to swim in the rivers.

"We would want people to be able to swim safely and not have their dogs poisoned by drinking the water and farmers need good water too."

□ A \$2m river restoration fund will see Ngati Pahauwera repair the damage to its waterways from intensive farming upstream.

CONTINUED ON P...

Article published in the Wairoa Star – Thursday 12 December 2013

This is the exhibit marked "M" referred to in the affidavit of Toro Edward Waaka
 affirmed at NAPIER this 7th day of FEBRUARY 2014
 before me Signature [Handwritten Signature] Hilton R Verry
Solicitor
 A Solicitor of the High Court of New Zealand / ~~Justice of the Peace~~ Napier

Hilton R Verry
Solicitor
Napier

Pahauwera keen to show a lead

FROM PAGE 1

The scale of the environmental degradation from intensive farming in the upper reaches of the Mohaka River is a particular concern for Pahauwera.

In 2006 when Genesis completed native fisheries reports on the health of the river for a dam study, there were grave concerns for the kahawai, long fin eel and white bait fisheries.

In 2008 the trust gained an undertaking from the Crown that they would be given \$2m to restore the rivers.

The trust is determined to show good leadership and sustainable environmental practices on their own land use that affects waterways.

When he was growing up in Kotemaori, he said one of their main pastimes was fishing for freshwater crayfish but in a lot of areas they had now gone too.

"Our main focus of our project will be fencing off waterways from stock and we will also plant up a riparian strip with natives to filter out the phosphates."

He said this would soon be a requirement from the HBRC so it made sense to start early.

PAPERSPAST

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THE ATTACK ON MOHAKA.

West Coast Times , Issue 1117, 21 April 1869, Page 2

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THE ATTACK ON MOHAKA.

FULLER DETAILS.

The following "Extra" was issued by the *Wellington Independent* on April 12:—

We have been kindly favored by the Government with the following telegrams, which arrived last night:—

NAPIER, Sunday morning.

This is the exhibit marked "N" referred to in the affidavit of Toro Edward Waaka affirmed at NAPIER this 7~~th~~ day of FEBRUARY 2014 before me

Signed M. R. Verry

A Solicitor of the High Court of New Zealand/
~~Justice of the Peace~~ Hilton R Verry
 Solicitor
 Napier

About 7 p.m. last (Saturday) Mr Davis came in from Petane, reporting that a man had arrived there with accounts that Hau Haus attacked Mohaka in the morning.

About 10 o'clock p.m. the Mohaka settler Stark came in and gave an account of what had happened up to the time he left. His story was that about 5 a.m. (on Saturday), he heard firing, and rode across the river to the pah, when the natives told him the Hau Haus were attacking them. Stark then recrossed the river to his own house, and says he was fired on by three Hau Haus near his stockade, and he made his way to the beach, and saw Hudson, who told him that Sim had gone to bring away his family. He also saw Henrici and another launching the whaleboat. He then rode off for Napier, and gave the alarm to the settlers on the road. It was about 9 a.m. when he left Mohaka, and he saw some of the whares on fire, with Hau Haus on both sides of the river, firing at the pah at long distances. Up to the time he left he saw no one killed or wounded.

About two o'clock on Sunday morning the whaleboat arrived at Napier with seven men. They confirm Stark's report.

Armstrong saw about thirty men marching with a flag in regular order for the pah.

The whaleboat has been sent from Napier to Mohaka for intelligence.

Colonel Lambert, with about 400 militia, volunteers, and constabulary, have marched to Petane. The cavalry will push on, and will be followed by the infantry if the enemy makes a stand. The Mounted Constabulary, under Captain Richardson, left Waipukurau this morning to join Colonel Lambert.

Great credit is due to Mr Henry Russell and Colonel Lambert for the excellence of their arrangements. The spirit of the troops is admirable. As the militia and volunteers passed through the town, headed by the band, their appearance was quite imposing.

There have been reports about a massacre of Europeans, but these are not authenticated and are not believed. There is no panic at Napier, and the inhabitants look on this day's movement as a triumph of self-reliance.

10.20 p.m.

The scout, a half-caste, stationed under Ensign Lavin, at Mohaka, who lives about five miles up the river from its mouth, has just come in. At present it is exceedingly gratifying to report that several of the missing Europeans, for whose safety we trembled, have arrived at Petane this evening, viz., Mr Sim, wife and six children, George Bee, Samuel Holloway, and George Ferrer. The scout reports that at the distance of a mile he saw a native pah in flames on opposite side of river to Lavin's, and about half-an-hour afterwards Lavin's house. He thinks, however, that Lavin would have time to escape with his wife and two children. The half-caste woman was in one of the paks when attacked by the Hau Haus, and escaped down the river in a canoe. Were fired upon, and lost an old man and two children killed, and a woman wounded. She heard an old man cry to get out the ammunition from one of the paks and set fire to the whares, which was done, but does not know the fate of the ammunition. She left the pah and

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original page. The article can be seen in its original form in the [page view](#).

found the boat. This woman thinks a considerable number of Native women, children, and old men, have fallen victims, and that it was a party of Te Waru's people.

The affair, so far as the Europeans are concerned, looks much better now than was hoped for.

His Honor Donald M'Lean, Superintendent of Hawke's Bay, favored us with the following telegram received last night:—

Henrici arrived from Mohaka in a boat. He saw thirty or forty Maoris marching four deep down to Paora Kepu's pah with a flag flying. There were fourteen casks of ammunition in the pah. He afterwards saw smoke at the pah, and at Pearce's house.

The Hau Haus were supposed to be living in Hudson's house.

Hudson and Stark were fired on near the residence of the latter—all settlers at Waikare.

The Arapawanui are coming in; M'Kinnon and Stark have also arrived.

The Paora men are with the Wairoa expedition, only an old man being left to defend the pah.

"O"

Y BAY

THE FOUNDER OF POVERTY BAY

then went on to Kapiti (James Stewart). That peninsula, whither she had led of his warriors, on his *Leabeth* got back to Syd-

Burns, reached Poverty Bay), it is highly probable Mr. Montefiore on 12 than Burns's date, and in the *Darling* when she en, is the date which it dies a list of the vessel's

9 cases of muskets, 8 cases of cask of oil, 32 casks of iron of rum, 5 baskets of

Harris, it seems, set up and from it also supplied to trade.

and waters until 6 July, month later, her captain's the "N" clearly being a icial who made the entry, page 5 of the *Memoirs*.

on a vessel commanded by William Stewart), who had did not form portion of o stay with his old friend of 1849, dying in 1851, and (Opou) at the south-east

it voyage to New Zealand under a Captain Skelton. Montefiore and Co. had that Harris, Burns and vessel which, at the time, most likely is that the long been acquainted with he sites for, and to make chiefs for the opening of red on the northern shore ahia.

OBSCURE TRADER AT MAHIA

The pioneer trader at Mahia cannot now be identified, but it is certain that he was not Harris. Polack (who was there in 1835 and 1836) says (*New Zealand: Travels and Adventures*, Vol. 1, p. 315) that he was a shipmaster; that he introduced a horse for his own use; and that, when he quitted the country, the natives, who had become very much attached to the animal, would not allow him to take it away. He adds: ". . . and it yet remains with Apatu" [a chief, who died in 1853]. The work mentioned was published in 1838, and the date of this pakeha's sojourn was then placed at "some years back."

There are some vague references to this trader in the report of the Hereheretau No. 2 block case (Wairoa Native Land Court minute book, No. 3), which was heard at Wairoa in 1888. His name is given as "Henare," or "Hare," and it is stated that he got into Waikokopu in a vessel named "Pane te Rahi" ("Fanny," large). Two chiefs, Waaka Torowhiti and Kowhai, made a trip with him to Sydney. When Rangiwahia, of Ngaitahaupo tribe, died *Te Wananga* (11/1/1875) said: "It was his ancestor, the Kowhai, who put the pakeha at Kaiuku (Mahia) who was called 'Hare' (Harry)."

According to the witnesses, "Hare's" first visit took place about the time at which Te Wera, the Ngapuhi warrior, and some of his followers settled, by invitation, at Mahia (1824 or 1825). "Hare" was the first pakeha to sell guns there. Henare Mihingaere was under the impression that "Hare" lived at Nuhaka. The fact that this trader had a horse is especially interesting: it must have been the first to be landed on the East Coast. "Hare's" sojourn at Mahia might not have been as early as 1825, but, apparently, it was not long afterwards.

Lambert (*Story of Old Wairoa*) was mistaken in suggesting that "Hare" was Captain Harris. He says (page 355): "Harris used to visit Te Mahia until the arrival of a man named Barnett Burns (1829)." It is, however, beyond question that Harris and Burns, together with Ralph, did not reach New Zealand until 1831. Polack, during his calls at Poverty Bay in 1835 and 1836, could not have failed to become acquainted with Harris, and, if he had been reputed to be the pioneer shore-trader at Mahia, he (Polack) would not have written that the trader whom he had in mind had quitted the country before the date of his own visits to Northern Hawke's Bay. In any case, if "Hare" was at Mahia as early as 1825, Harris was then too young (16 or 17 years old) to have had charge of a vessel trading out of Sydney.

This is the exhibit marked "O" referred to in the affidavit of Toro Edward Waaka affirmed at NAPIER this 7th day of FEBRUARY before me Signature Hilton F. Verry Solicitor Napier
A Solicitor of the High Court of New Zealand / Justice of the Peace

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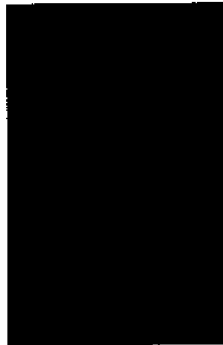


▼ ABOUT THIS PAGE

Title: Historic Poverty Bay and the East Coast, N.I., N.Z.

Author: Joseph Angus Mackay

Publication details: Joseph Angus Mackay, 1949, Gisborne



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CONNECT



HISTORIC POVERTY BAY AND THE EAST COAST, N.I., N.Z.

OBSCURE TRADER AT MAHIA

OBSCURE TRADER AT MAHIA

The pioneer trader at Mahia cannot now be identified, but it is certain that he was not Harris. Polack (w 1835 and 1836) says (*New Zealand: Travels and Adventures*, Vol. 1, p. 315) that he was a shipmaster; that he introduced a horse for his own use; and that, w , would not allow him to take it away. He adds: "... and it yet remains with Apatu" [a chief, who died in 1853]. The work mentioned was published in 1838, and the date of this pakeha's sojourn was then placed at "some years back."

There are some vague references to this trader in the report of the Hereheretau No. 2 block case (Wairoa Native Land Court minute book, No. 3), which was heard at Wairoa in 1888. His name is given as "Henare," or "Hare," and it is stated that he put into Waikokopu in a vessel named "Pane te Rahi" ("Fanny," large). Two chiefs, Waaka Torowhiti and Kowhai, made a trip with him to Sydney. When Rangioraho, of Ngaitahaupo tribe, died, *Te Wananga* (11/1/1875) said: "It was his ancestor, the Kowhai, who put the pakeha at Kaiuku (Mahia) w (Harry)."

According to the witnesses, "Hare's" first visit took place about the time at which Te Wera, the Ngapuhi warrior, and some of his followers settled, by invitation, at Mahia (1824 or 1825). "Hare" was the first pakeha to sell guns there. Henare Mihingaere was under the impression that "Hare" lived at Nuhaka. The fact that this trader had a horse is especially interesting: it must have been the first to be landed on the East Coast. "Hare's" sojourn at Mahia might not have been as early as 1825, but, apparently, it was not long afterwards.

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The chief who became Harris's protector in Poverty Bay in 1831 was Toti, or Pototi, who, later, went by the name Paratene Turangi. [Writing to Mr. McLean in 1868, following upon the murder of Paratene at Oweta upon Te Kooti's instructions, Harris described him as "the most truthful and most reliable native that I have ever had any dealings with." Lady Carroll was a granddaughter.] Harris junior says that the natives of Poverty Bay were enjoying a respite from the hostile attentions of their neighbours at the time of his father's arrival; but, as they had only a few firearms, they were uneasy lest further attacks might be made upon them. Their main occupation, apart from the rearing of pigs and the cultivation of potatoes, was dressing flax to enable them to barter for firearms. By 1832, when sections of the Whakatohea (of Opotiki) invaded Poverty Bay, the local tribes were fairly well off for arms, and, on account of the ease with which they overwhelmed these intruders at Kekeparaoa, no further raids occurred within their borders.

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Waka

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Waka and the Crown

Honouring Royal Visitors

Waka were used to honour royal visitors and their representatives in New Zealand. For example, a regatta was organised in Auckland in 1868 in honour of Prince Alfred, Duke of Edinburgh.

The centrepiece of this event was the waka race, which featured five war canoes including Te Toki-a-Tapiri (Anne Nelson, Ngā Waka Māori. MacMillan New Zealand, Auckland: 1991).

In 1901, the Te Arawa people presented a model waka to the Duke and Duchess of Cornwall and York as a token of their affection for the Royal Family. The waka was 10 feet in length, and was presented with full tribal ceremony (Auckland Star, 15 June 1901: 5).

In 1919, the Prince of Wales (later King George VI) was greeted in Wellington Harbour by the Waiapu, a waka prepared by the local tribes for the visit (Best, Op Cit: 127, Evening Post 8 May 1920:9). Several Governors-General were ferried by waka to attend meetings with Māori.

Queen Elizabeth and Waka

The tradition of honouring royal visitors to New Zealand through waka was maintained in 1974 and 1990, when Queen Elizabeth II visited New Zealand.

In 1974, she was hosted at Ngānuawāhla by the Māori Queen, Dame Te Atairangikaahu. As part of the ceremonial welcome, Her Majesty and her party were saluted by a fleet of waka, including three full sized war canoes (Te Ao Hou, March 1974: 22).

In 1990, Queen Elizabeth II was accompanied ashore at Waitangi by a flotilla of 25 waka to mark the sesquicentenary of the Treaty of Waitangi (signed in 1840).

Waka at Annual Henley Royal Regatta

Waka have featured prominently on the River Thames a number of times with the earliest known visit made by renowned Te Arawa guide Maggie Papakura.

In 1911, she took a Te Arawa waka to the Annual Henley Royal Regatta and her crew paddled down the River Thames in a "splendid display. The Henley regatta is 171 years old. Click here to read a report from the Evening Post.

Seventy-nine years later in 1990 the late Te Arikiniui Dame Te Atairangikaahu took the Tainui waka taua Taheretikiki II to Henley. The Queen was accompanied by her husband Whatumoana Pahi, 24 paddlers and six kaumatua.

Māori Contingent to Queen Victoria's Diamond Jubilee 1897

The last time the British Royal family celebrated a Diamond Jubilee was in 1897 for Queen Victoria. Then, as now, a Māori contingent took part.

A Jubilee Day military procession for Queen Victoria was held on 22 June 1897 and included Colonial and Imperial troops. Newspaper reports from that era estimated four million people attended and watched the one hour procession.

New Zealand sent 54 men of the Mounted Rifles and 18 were Māori led by Captain Hoani Tunuiarangi (Ngāiū Kabungunu). The New Zealand contingent left on the RMS "Ruahine" on 30 April and arrived in at the Royal Albert Docks in London on 11 June. It was fine weather and plain sailing all the way, with much of the time taken up with drills and training for the procession.

The report in Parliament of the visit by Lt Col Albert Pitt, who commanded the New Zealand troops.

This is the exhibit marked "P" referred to in the affidavit of Toro Edward Waaka affirmed at NAPIER this 7th day of FEBRUARY 2014 before me
Signed H A Verry
A Solicitor of the High Court of New Zealand/Justice of the Peace
Hilton R Verry
Solicitor
Napier

Waka and the Crown

describes the resounding success of the visit. The contingent was very popular amongst the millions who gathered to watch; especially the Māori troops.

On 11 August 1897 "The Thames Star" reported on the Pageant of "Unparalleled Brilliancy" with "Scenes of wildest enthusiasm".

Considered the major news event of the day, pioneer film crews fought for prime spots from which to record the event. Almost all of the films are held by the British Film Institute.

[Click here to view one of the many film clips on You Tube.](#) It's likely that the New Zealand contingent were part of the Mounted Riflemen which starts at about 2:39.

Maori art is inseparable from Maori culture. It is like a living organism that exists in the spirit of our people and drives them toward wider horizons and greater achievement.

PORIRUA

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 A Solicitor of the High Court of New Zealand/Justice of the Peace

HONORIFIC TERMS, SACERDOTAL EXPRESSIONS,
 PERSONIFICATIONS, ETC., MET WITH IN
 MAORI NARRATIVE.

(Continued from Vol. 36, p. 291.)

Hine-korito } The Moon Maid-
Hine-kotea } ens. Fair-haired,
Hine-makehu } fair-skinned off-
Hine-korako } spring of Tanga-
 roa, viewed as atua, helpful to
 mariners. "Na, ko Hine-kotea,
 ko Hine-makehu, ko Hine-huru-
 huru, ko Hine-korito, enei he
 Tinirau, he Tangaroa." Hine-
 korako is said to appear in the
 form of a lunar bow or halo.
 The word korako is used to de-
 scribe a fair-haired, fair-skinned
 person. Hine-korako and
 the others acted as guides or
 objective points, etc., to deep-
 sea navigators. "Ka takoto
 tonu te ihu o Takitimu ki roto i
 a Hine-korako i te po, ki roto
 i a Kahukura [rainbow] i te
 awatea." In one recital she is
 spoken of as the sister of Ka-
 hukura. "Ka haere ko te tua-
 hine, ko Hine-korako, ki mua
 ki te ihu o te waka tu mai ai."
 She was appealed to by mari-
 ners. "Ka tu ko Hine-kora-
 ko te atua taki i te waka, a ao
 noa te ra." "Ki te tu te
 kopere he koma ahua pukohu
 nei . . . ko Hine-korako tena
 kopere." Apparently a pale,
 light-hued rainbow was known
 by this name. Hine-korako
 was appealed to in child-
 birth and other matters con-
 cerning women, a natural
 sequence of her connection
 with the moon. See Hina,
 vol. 35, p. 334. These beings
 are sometimes alluded to as
 though they were ocean levia-
 thans that protected and bore
 a vessel across the ocean. "Ko
 Ruamano, ko Hine-korito, ko
 Hine-kotea, ko Hine-makehu
 etc., nga taniwha tenei nana a
 Takitimu i mau mai i Tawhiti."
 "Ko Ruamano hei taki i te
 waka nei; ko Hine-korito, ko
 Hine-kotea, ko Hine-makehu
 nga kaiamo i te waka." The
 words korito, kotea, korako,

and makehu are all employed
 to denote paleness or fairness,
 as of hair or skin colour. Hine-
 huruhuru, mentioned above, is
 not usually included among
 these fair-haired beings. Hine-
 korako is the name of a mythi-
 cal being, a spirit said to have
 abode at the falls of Te Rei-
 nga, Wairoa district, being
 probably a personified form of
 the iridescent display occasion-
 ally seen at the falls. The
 name of Tu-korako also ap-
 pears in recitals as a variant
 form of Hine-korako. In Poly-
 nesia we find the same myth
 of the fair-haired offspring of
 Tangaroa, who is connected
 with the moon in Maori myth,
 as the moon is connected with
 the ocean.

Rona. This being is looked upon
 as the guide or conductor of
 the moon, and also as one of
 the two controllers of the tides,
 hence her full name of Rona-
 whakamau-tai. The Awa folk
 of Whakatane have it that
 Rona was the child of Tanga-
 roa and Hine-te-iwaiwa (alias
 Hina), i.e., a child of the per-
 sonified form of the moon.
 Rona mated with the moon,
 who appears as a male in this
 tale, and who also took to wife
 one Tangaroa-a-roto. The fire-
 side tale concerning Rona is
 that she was a woman of this
 world, who was take up to the
 moon as a punishment for her
 having reviled that orb, but the
 dictum of the superior myth is
 —"Ko Rona-whakamau-tai te
 kaiarataki i te marama," and
 "Ko Rona hei tiaki i te mara-
 ma whiro." An eclipse of the
 moon, as also its dark phases,
 are caused in popular belief
 by its being consumed by
 Rona. "Ko Rona he atua
 whiro e kai ana i te marama."

**“R”
Photographs**

Clearing the Bar at Mohaka 1993

Note with these photos “James Spooner opening the bar at Mohaka Beach 1993”



Toro Waaka photo 1: Mohaka Beach full of driftwood looking South towards Waikare 1993



Toro Waaka photo 2: Digging out the Bar at Mohaka Beach/River Mouth 1993



Toro Waaka photo 3: Digging out the Bar 1993



Toro Waaka photo 4: Digging out the bar 1993

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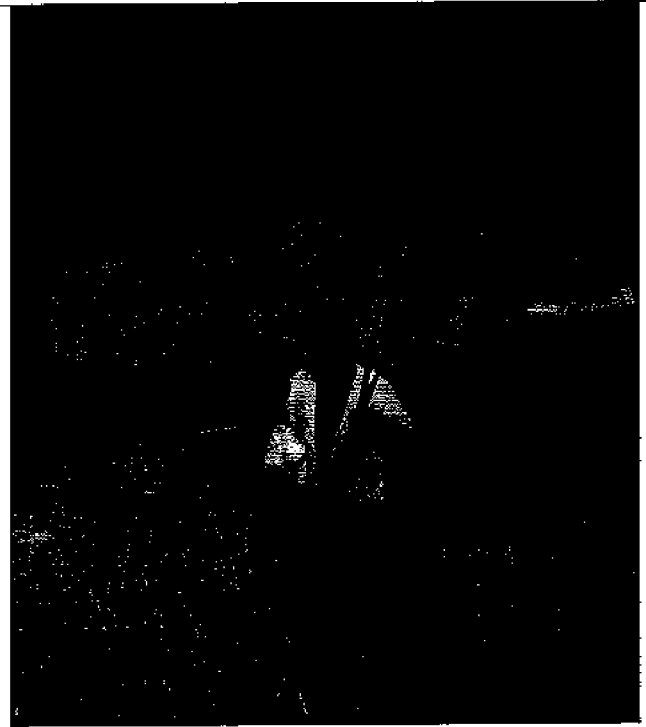
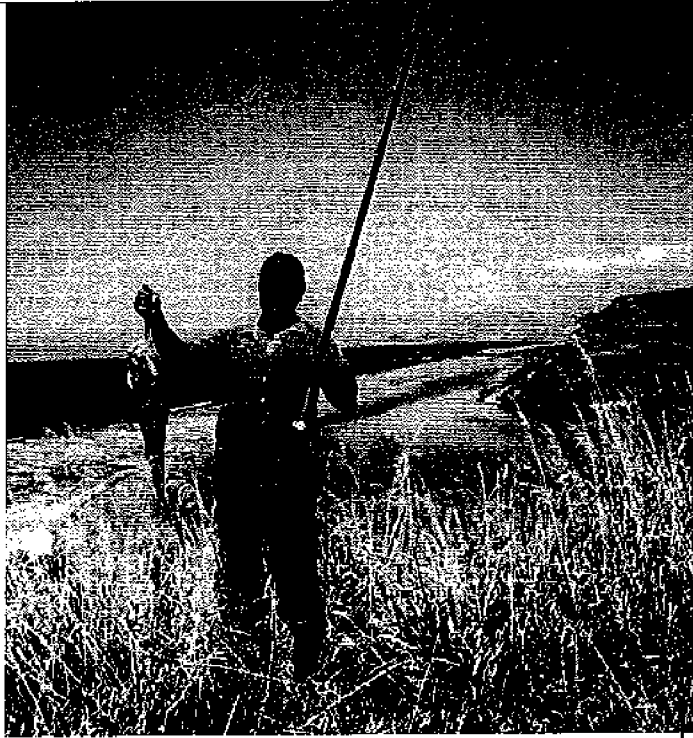
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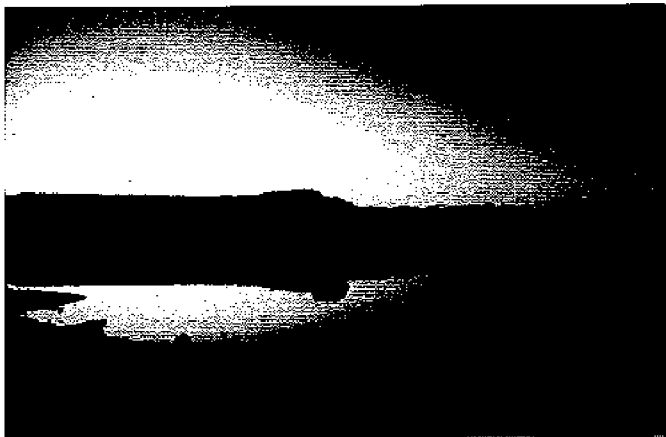
Hilton R Verry
Solicitor
Napier

A Solicitor of the High Court of New Zealand / ~~Justice of the Peace~~



Toro Waaka photo 5: Tommy Heta with fish he caught at Mohaka 1993

Toro Waaka photo 6: Willie Culshaw with fish he caught at Mohaka 1993



NO PHOTO

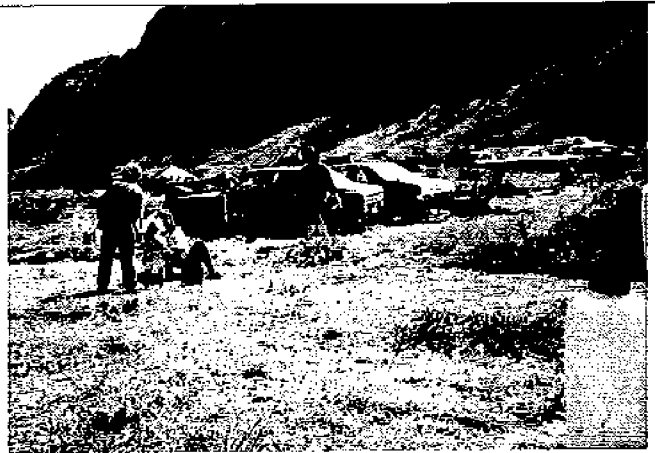
Toro Waaka photo 7: The Mohaka River Mouth at dusk after the Bar was cleared

Mohaka Fishing Competition 1994

Note with these photographs: "Paieka Fishing Club's first Club Day 1994"



Toro Waaka photo 8: Mohaka Fishing Competition 1994 – caption: "What a sight!" All of Pahauwera came out to fish today. This is COMPETITION Day"



Toro Waaka photo 9: Mohaka Fishing Competition Vehicles and participants (note older model of cars)



Toro Waaka photo 10: Table and Chairs set up at Mohaka Fishing Competition 1994 – caption: "Rose Culshaw – Glenys Joe"



Toro Waaka photo 11: Attendees at Mohaka Fishing Competition 1994 – caption: "Harry – Nick – Bell – Wayne Committee members having a korero"



Toro Waaka photo 12: Children and attendees at Mohaka Fishing Competition – caption: " Cameron Billings – Culshaw Kaisas – Anne Hancy"



Toro Waaka photo 13: Attendees at Mohaka fishing competition



Toro Waaka photo 14: Attendees at Mohaka fishing competition (note driftwood piled high behind)



Toro Waaka photo 15: Attendees at Mohaka fishing competition



Toro Waaka photo 16: Mohaka Fishing Competition – caption: "Richard Grace and Dyke Thompson – Wairoa Fishermen and Nick



Toro Waaka photo 17: Mohaka fishing competition – fish hanging up on driftwood structure



Toro Waaka photo 18: Whanau waiting for results at Mohaka fishing competition



Toro Waaka photo 19: Children playing at Mohaka fishing competition



Whanau enjoying a day at the beach

NO PHOTO

Toro Waaka photo 20: Children on four wheel drive at Mohaka fishing competition – caption: 'Whanau enjoying a day at the beach'

Waihua Fishing Competition 1990's



Toro Waaka photo 21: Waihua Beach Te Aho Whanau Fishing Day – caption: 'Humble beginnings for the Paikea Fishing Club'



Toro Waaka photo 22: Waihua Beach Te Aho Whanau Fishing Day – caption: 'THE WORKS. You cant catch fish if you haven't got a solid piece of woo-sharp knife – pillies – cotton and a hot drink'



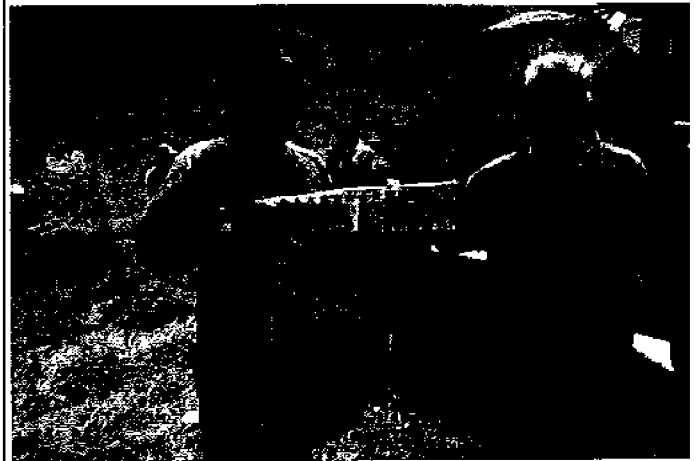
Toro Waaka photo 23: Waihua Beach Te Aho Whanau Fishing Day – caption: 'Fishermen waiting for results'



Toro Waaka photo 24: Waihua Beach Te Aho Whanau Fishing Day – caption: 'Lemonfish galore!'

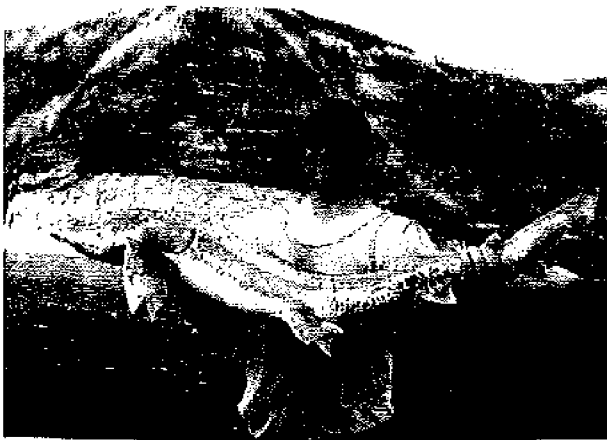


Toro Waaka photo 25: Caption: Winning fish at 8.2kg

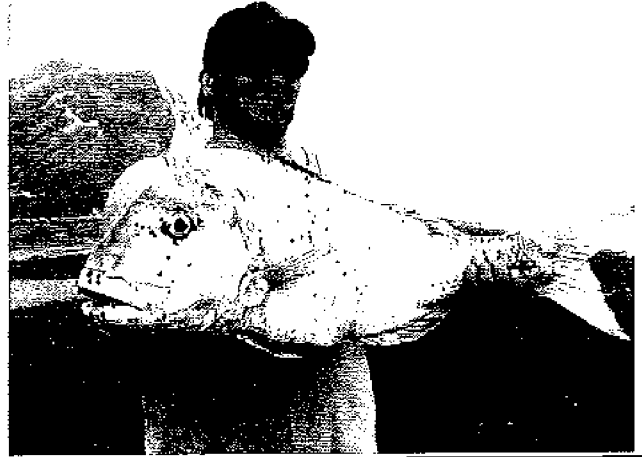


Toro Waaka photo 26: Caption: Prize money received

Paikea Club Day at Mohaka 1997



Toro Waaka photo 27: Caption: John Samuel 7kg Lemonfish



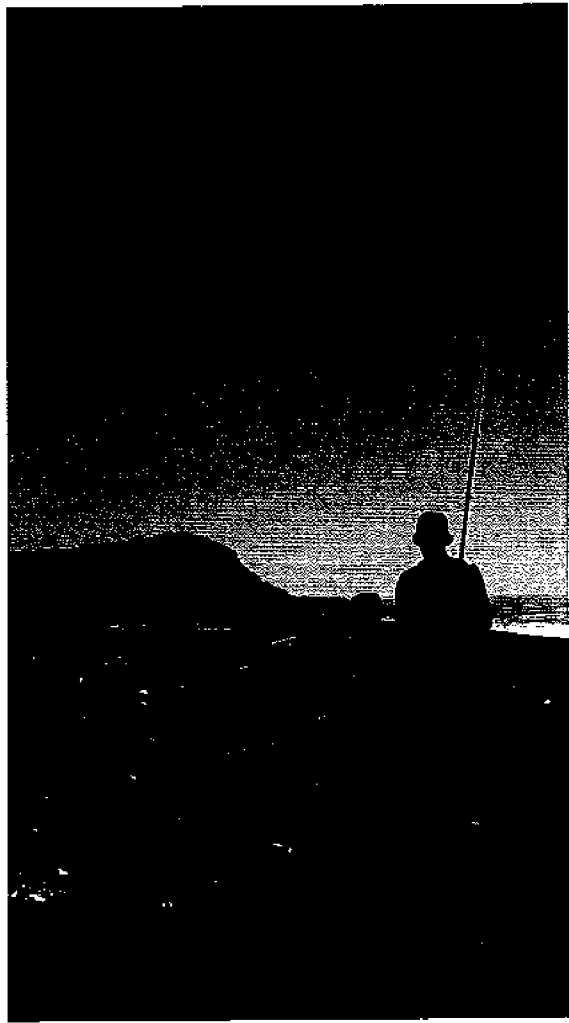
Toro Waaka photo 28: Caption: Caught the same day 7.9kg Snapper



Toro Waaka photo 29: Caption: Ivan's Snapper 8.2kg

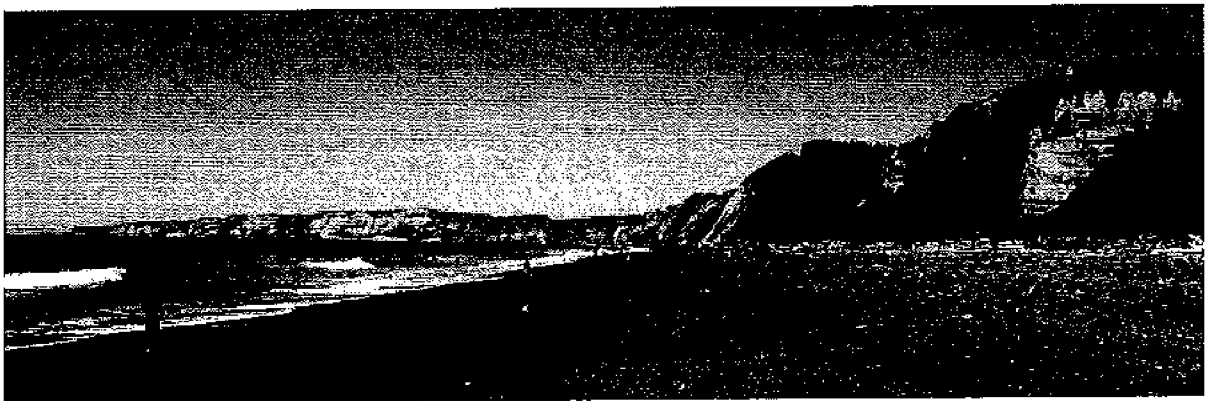


Toro Waaka photo 30: Caption: John's Snapper caught on Paikea Club Day and is a record at 10.2kg 1997

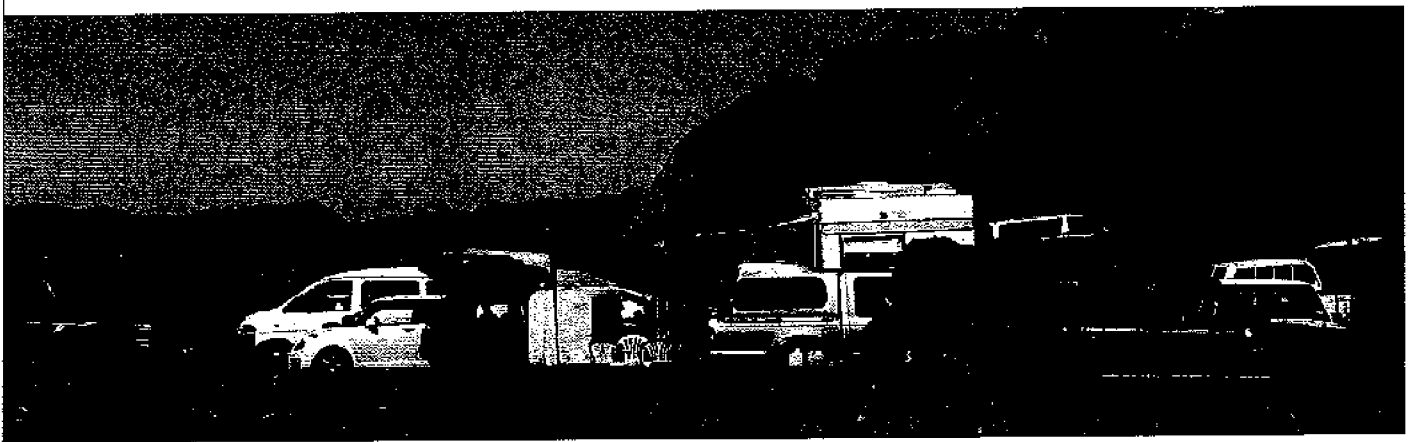


Toro Waaka photo 34: Whanau Fishing Competition January 2014 – Local Mohaka family

Toro Waaka photo 35: Whanau Fishing Competition January 2014 – Whanau from Wellington



Toro Waaka photo 36: Whanau fishing Competition 2014 - fishermen and women looking far South



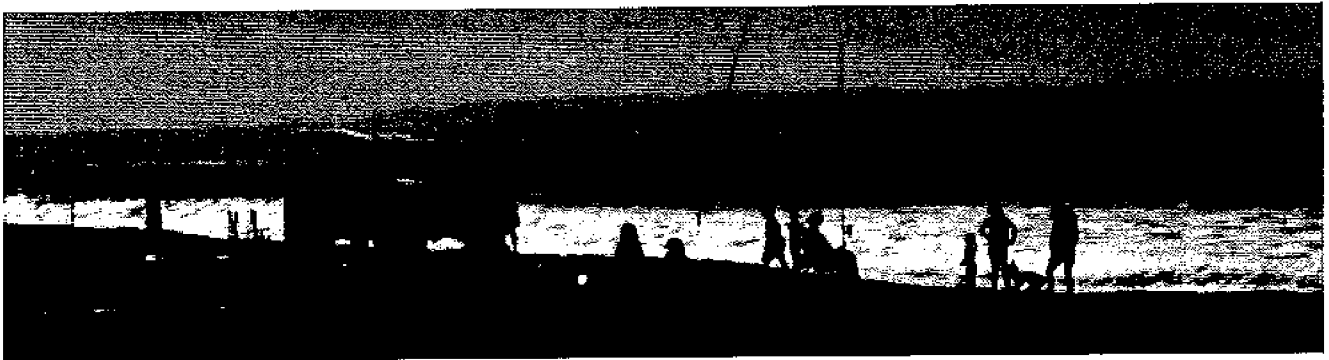
Toro Waaka photo 37: Cars parked at Whanau fishing Competition includes campervan, 4WD, trailers, tent in background.



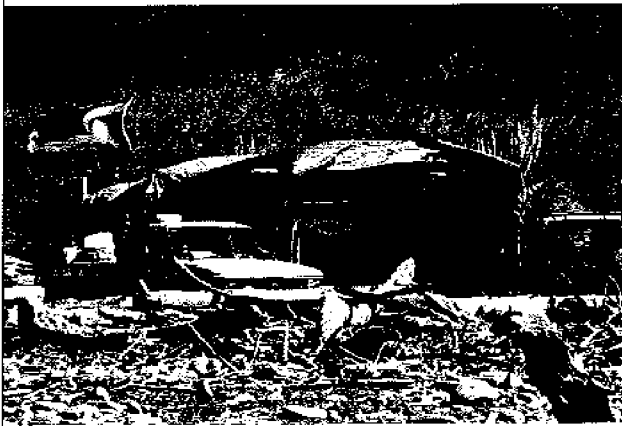
Toro Waaka photo 38: Fishing Competition January 2014 – Officials in 4WD



Toro Waaka photo 39: Fishing Competition January 2014 – Te Kahika brothers and their setup



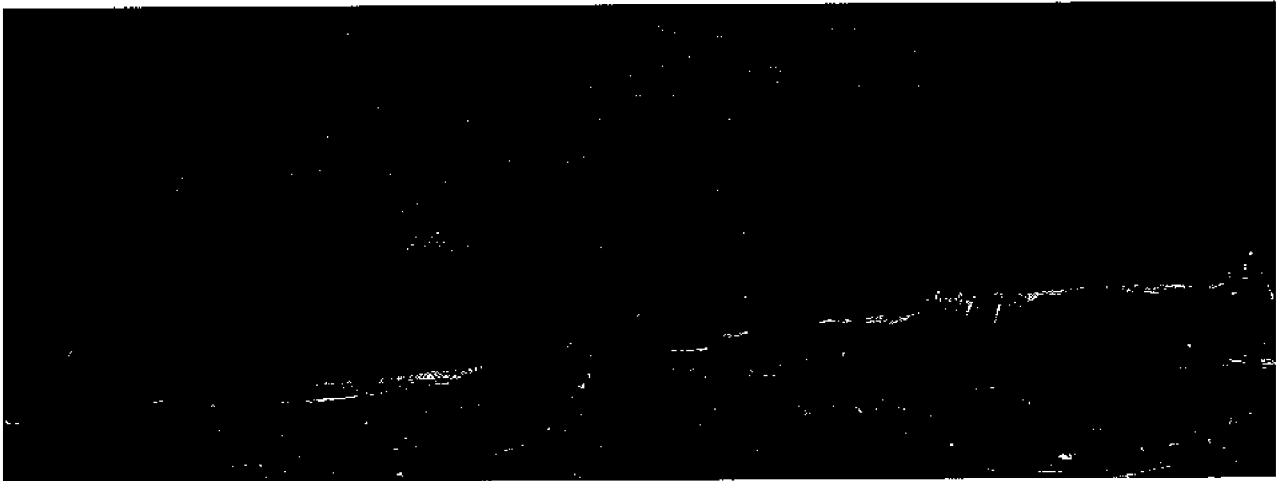
Toro Waaka photo 40: Jeep on beach with family fishing (looking North to Mohaka Bar)



Toro Waaka photo 41: Fishing Competition January 2014 – Te Aho Whanau Campsite



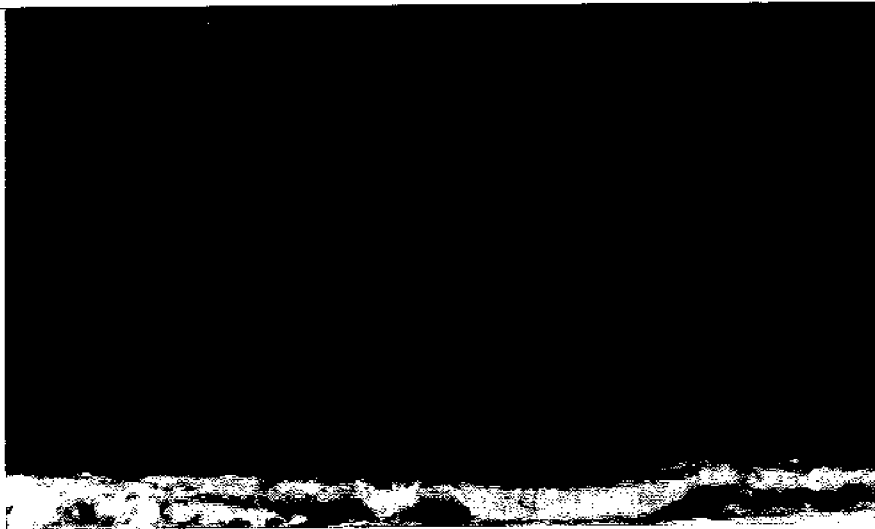
Toro Waaka photo 42: Fishing Competition January 2014 – Fire (with area cleared) and lambstails



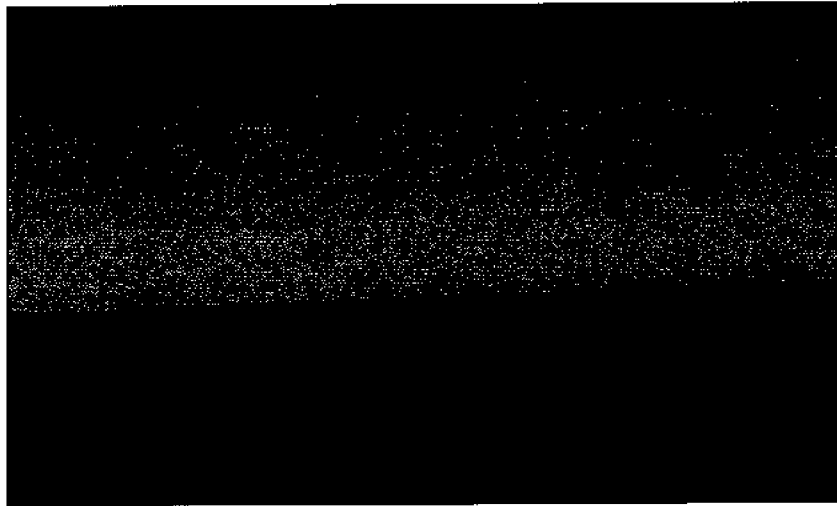
Toro Waaka photo 43: Fishing Competition January 2014 –Rods and locals looking South



Toro Waaka photo 44: Fishing Competition January 2014 –Command Centre for registrations and snacks/drinks for competitors



Toro Waaka photo 45: Fishing Competition January 2014 –Orca close to shore during fishing competition. Screenshot from video. Video shows fishing rods and local Ngati Pahauwera on 4WD bikes.

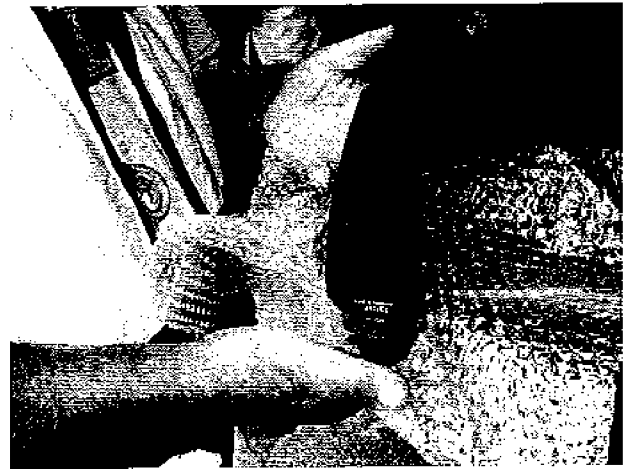


Toro Waaka photo 46: Fishing Competition January 2014 –Orca close to shore during fishing competition. Screenshot from video. Video shows fishing rods and local Ngati Pahauwera on 4WD bikes

Foreshore and Seabed Hearing 2008



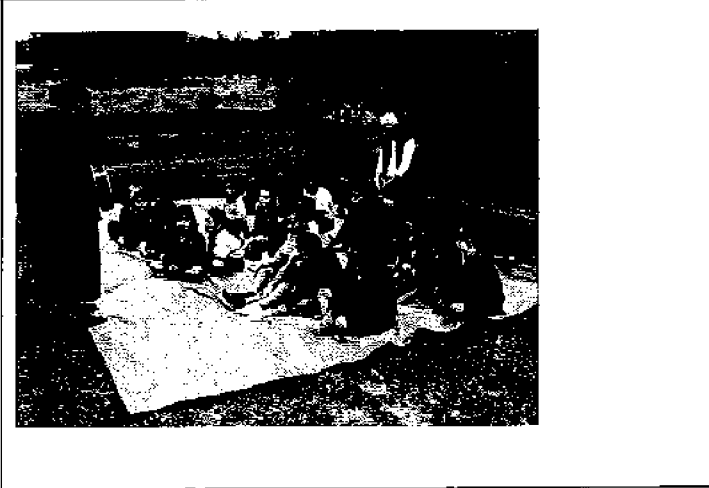
Toro Waaka photo 47: Foreshore and Seabed Hearing 2008 Taonga being unwrapped



Toro Waaka photo 48: Foreshore and Seabed Hearing 2008 Unwrapped taonga carved from Hangi stone



Toro Waaka photo 49: Foreshore and Seabed Hearing 2008 Paepae at Waipapa A Iwi Marae



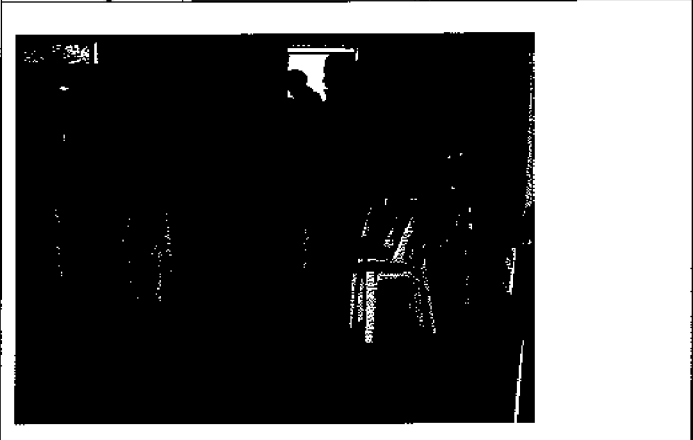
Toro Waaka photo 50: Foreshore and Seabed Hearing 2008 Mohaka School Children waiting for Manuhiri to arrive



Toro Waaka photo 51: Foreshore and Seabed Hearing 2008 Manuhiri arrival



Toro Waaka photo 52: Foreshore and Seabed Hearing 2008 Tangata Whenua



Toro Waaka photo 53: Foreshore and Seabed Hearing 2008 Attendees listening to proceedings



Toro Waaka photo 54: Foreshore and Seabed Hearing 2008

Pumice



Toro Waaka photo 55: Pumice table decorations for Edward Waaka's unveiling 2013



Toro Waaka photo 56: Pumice table decorations for Edward Waaka's unveiling 2013

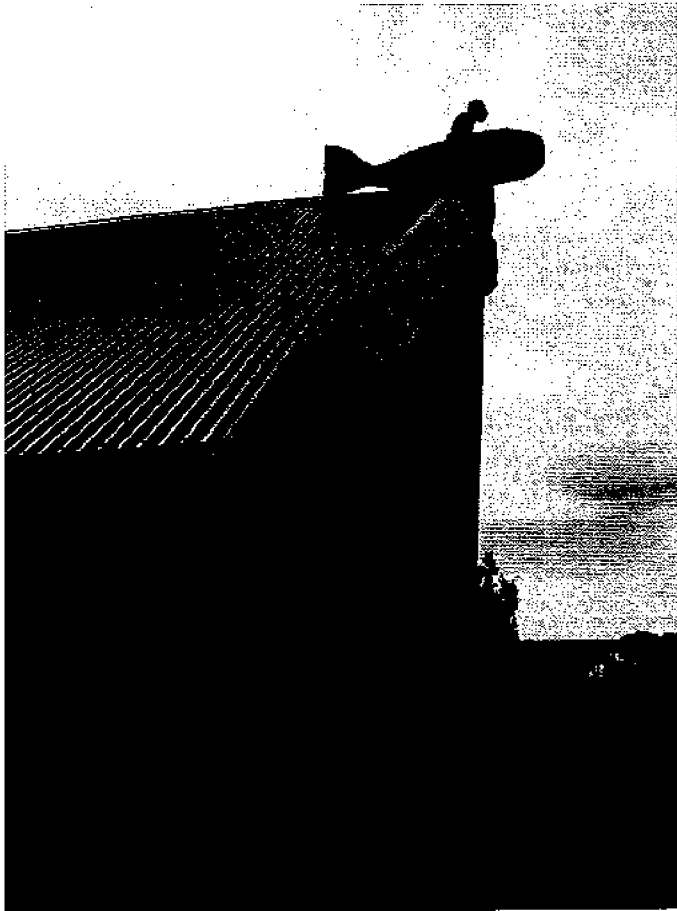


Toro Waaka photo 57: Pumice table decorations for Edward Waaka's unveiling 2013



Toro Waaka photo 58: Pumice table decorations for Edward Waaka's unveiling 2013

MISCELLANEOUS



Toro Waaka photo 59: Paikea at Whangara Marae



Toro Waaka photo 60: Waikare fishing competition 2011 – caption "Andrea Tautaha and Isobel Thompson with the only snapper in a bucket of Kahawai" from Wairoa star article *Thursday, February 3rd, 2011*



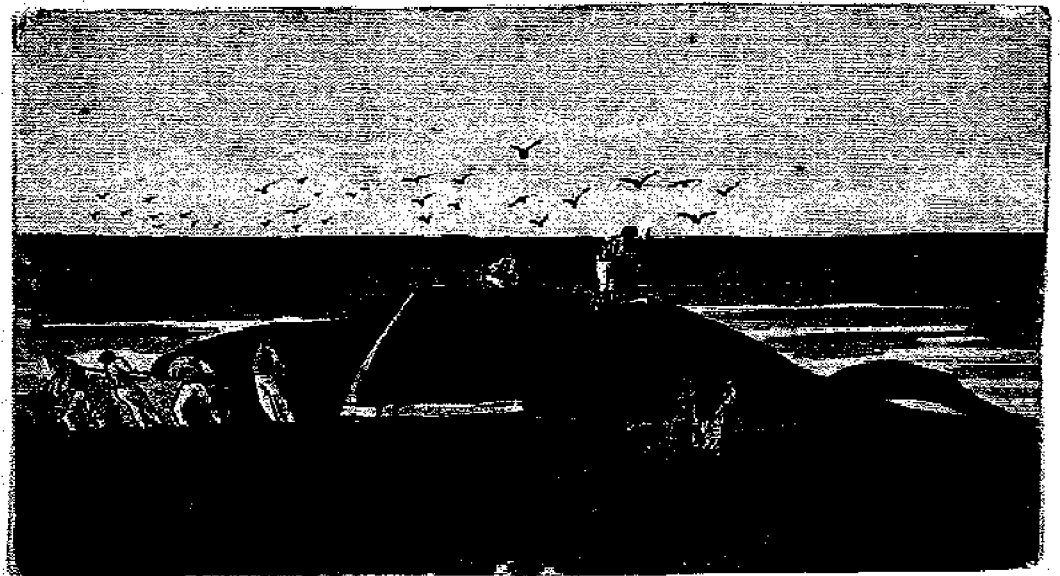
Toro Waaka photo 61: Cutting the blubber off a whale on Mohaka Beach - see National Library Record including notes on back of picture on following pages



[Cooper, Alfred John], d 1869 :Cutting the blubber off a whale on Mohaka Beach. [ca 1860?]

Names

Cooper, Alfred
John, 1819-1869
(as the artist)
Lavin, John Philip
Martin, d 1869 (as a
related subject)
Mouton, W J, fl
1969 (as the
donor/lender/vendor)
Mouton, W J (Mrs),
fl 1969 (as the
donor/lender/vendor)
Treasures in Trust
(Exhibition) (as a
related subject)
Two centuries of
New Zealand
landscape art
(Exhibition) (as a
related subject)



Date: 1860-1865 By: Cooper, Alfred John, 1819-1869; Mouton, W J, fl 1969; Mouton, W J (Mrs), fl 1969

Ref: A-235-010

Places

Mohaka

Two women watching six men haul the blubber off a beached whale at the water's edge.

Record types

Watercolours

Inscriptions: Inscribed - Verso - title and other notes in ink, in the hand of John Lavin: 'Cutting in. Cutting the Blubber off a whale on Mohaka Beach. The Fat is about 6 or 8 inches thick and has to [sic] cut off and dragged to the Boiling place. A couple of Moari gins [sic] in the foreground. That whale made about 12 Tons of oil. John Lavin.'

Subjects

Quantity: 1 watercolour(s).

Whales

Physical Description: Watercolour 71 x 129 mm

Whaling

Provenance: Presented by Mr & Mrs W J Mouton, June 1969

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There are 1 items in total.

Format: Watercolours, 1 watercolour(s), Single art work, Watercolour 71 x 129 mm, Horizontal image

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22

Trans-Tasman stories: Australian Aborigines in New Zealand sealing and shore whaling

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Introduction

Soon after the establishment of the English convict settlement at Sydney in 1788, New Zealand's first sealers landed at Dusky Sound in 1792 (Smith 2002:11), alerted to the presence of seals there by the journal of Captain Cook who visited in 1773 during his second voyage to the Pacific (Beaglehole 1961:135). The first sealing on Bass Strait islands took place in 1798 (Ling 1999:327). Exploitation of subantarctic islands began in 1804 at the Antipodes group (Smith 2002:12). Everywhere, big early catches soon declined. Nonetheless, seal numbers in southern New Zealand were sufficient to maintain an industry into the early 1830s (Smith 2002:12), with gangs dropped off along the coast from vessels out of Sydney, or in the 1820s by boat from Foveaux Strait. As relationships developed with Maori, especially with Maori women, many sealers stayed on to make a new life in New Zealand.

The first shore whalers set up in New Zealand in the late 1820s at Preservation Inlet at the southwest of the South Island and at Tory Channel, Cook Strait. Many sealers who had made a home in New Zealand moved easily to the new industry. Throughout the 1830s and in the early 1840s, shore whaling was New Zealand's biggest industry, exporter and employer. New Zealand's early sealing and whaling industries were part of the commercial interests of Sydney merchants, who pursued anything that might turn a profit, also including New Zealand timber and flax (*Phormium tenax*), and beche-de-mer, sandalwood and pork from tropical Pacific islands. Sydney's ocean frontier was central to Australia's early commercial and capital development.

This paper derives from a historic-archaeology research project on New Zealand shore whaling, supported by the Marsden Fund of the Royal Society of New Zealand and carried out in collaboration with Ian Smith, of the Anthropology Department, University of Otago. The main research focus has been Banks Peninsula where the 1840s Oashore whaling station was excavated in January–February 2004, and the Hawke's Bay district (Hawke Bay) where Te Hoe on Mahia Peninsula was investigated in 2005. Shore whaling at these places was part of

This is the exhibit marked "S" referred to in the affidavit of Toro Edward Waaka
affirmed at NAPIER this 20th day of FEBRUARY 2014
before me Signature [Signature]
A Solicitor of the High Court of New Zealand / Justice of the Peace

Hilton R Verry
Solicitor Page 362 of 778
Napier

a sealing and whaling industry which played a significant role in early colonial economic and social history on both sides of the Tasman (Figure 1).

With Australia the source of most New Zealand shore whalers, it is not surprising that one and two generations after the First Fleet sailed into Port Jackson some were of Aboriginal descent. Their fathers were convicts or ex-convicts. Mothers came from the many tribes that lived at or near the Australian coast and were largely dispossessed and dispersed early in the process of colonisation. The best known among them was Thomas Chaseland, whose convict father arrived in New South Wales in 1792 and later settled in the Hawkesbury district near Sydney. Chaseland was sealing at Foveaux Strait from c. 1824 and later whaled at several southern stations. Notable Hawke's Bay whalers from the mixed-race sealing communities of Bass Strait and Kangaroo Island were George Morrison, Edward Tomlins and Samuel Harrington.

Thomas Chaseland

The father of the New Zealand sealer and whaler, also called Thomas Chaseland, was convicted at Middlesex, on October 26 1791, aged 19, for an offence given as 'Capital Respite' (Colonial Secretary, Convict Indents 1788 to 1798. COD/9, State Records NSW) – i.e. it was a capital offence (unstated) for which he received instead a life sentence. After time on a hulk, he arrived in Port Jackson on the *Royal Admiral* on October 7 1792 (Smce and Provis 1981). In July 1824, 'Thomas Chasling' applied for land not periodically flooded, as was his 30 acres at Lower Portland Head on the Hawkesbury River near Windsor (Colonial Secretary, Fiche No 3082:829, State Records NSW). He stated that he had arrived in the colony 'upwards of 31 years ago and [was] now settled upwards of 21 years', indicating he completed his sentence c. 1803.

Thomas Chaseland had several children with Margaret McMahon, beginning with John, born c. 1798 (reported as 30 years of age in the 1828 census, where the family is listed as 'Cheeseling', with 'Chaseling' under 'other surnames'; State Records NSW). There followed Ann, Jane, Thomas, Louisa and Charlotte (Smce and Provis 1981). Thomas and Margaret were married at St Matthew's Church, Windsor, on November 29 1812, with five of their children baptised the same day (McDougall pers comm. 2008). Margaret died in 1815 aged 38 (NSW Pioneers Index 1788–1988, State Records NSW). Thomas and Margaret's son Thomas was born in 1807 (Baptisms Index, NSW Registry of Births, Deaths and Marriages; State Records NSW), and is recorded in the 1828 census (State Records NSW) as 22 years of age and living at Lower

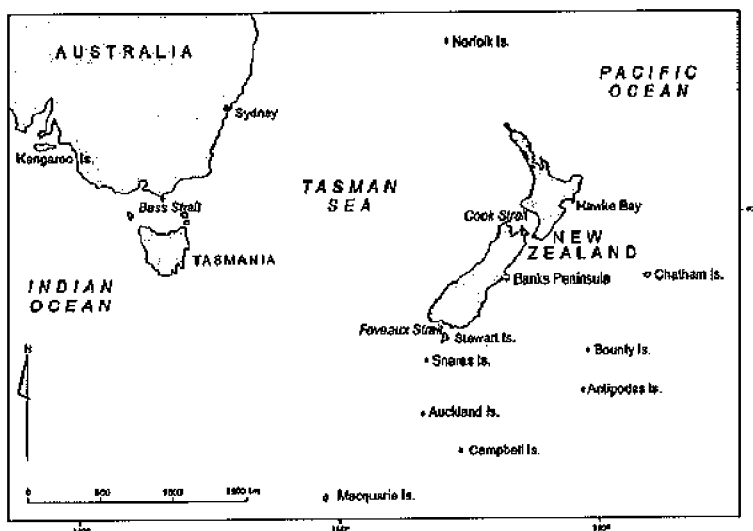


Figure 1. New Zealand and southeast Australia.

Portland Head (i.e. Windsor). Thomas senior died in 1847 at Wilberforce, New South Wales (Smee and Provis 1981). Thomas, born in 1807, died on October 30 1878 – at Wilberforce, like his father (Smee and Provis 1981).

The New Zealand Thomas Chaseland first appears in the crew list of the *Jupiter* (Captain Bunster), which left Sydney on August 6 1817 for Hobart, as ‘Thomas Chaseling, son of a settler at Windsor by a native woman’ (Cumpston 1970:44). The Society of Australian Genealogists (SAG) on-line ‘NSW Ships’ Musters 1816–1825’ has Chaseland listed as a passenger on the *Frederick* and crew on the *King George*, both in 1818. ‘Thomas Chaselin’, ‘Seaman’, left Hobart for Port Dalrymple (Launceston) and Port Jackson on the *Governor Macquarie* on October 2 1819 (Crowther Port Certificate Book, L11, p. 71, Tasmanian State Archives). On October 7 1820 ‘Thomas Chaceland 23’ left Sydney on the *Glory* for Port Dalrymple on a sealing voyage to the islands northwest of Australia (Cumpston 1970:54), which importantly gives his age. Ages are often given for younger seamen on crew lists at the time. Thomas was thus born c. 1797, 10 years before his half-brother of the same name, and a year before the birth of Thomas and Margaret’s first child in 1798. The *Glory* returned to Sydney on January 13 1822 after 15 months, but details of the voyage and cargo are lacking (Cumpston 1970:54).

On April 9 1823, Chaseland left Sydney on the *St Michael* (Captain Beveridge) for New Zealand and Tonga (Cumpston 1970:70; Cumpston 1977:139; SAG on-line ‘NSW Ships’ Musters 1816–1825’). On January 25 1824, he sailed on the *Nereus* (Captain Emmett) from Sydney taking convicts to Port Dalrymple, arriving there on February 10 (Cumpston 1970:70, 1977:147; Nicholson 1983:94), and from there on a sealing voyage, because in May 1824 the *Nereus*, now under Captain Swindells, was back at George Town and Launceston with seal oil and skins from the ‘Fishery/Sealing Is’ (Cumpston 1970:70; Nicholson 1983:96), probably southern New Zealand. No later record of Chaseland has been found in crew or passenger lists out of Australian ports. Thus, although specific information is lacking, it is likely the *Nereus* left Chaseland at Foveaux Strait on this voyage. Important places in Chaseland’s career in southern New Zealand are shown in Figure 2.

According to 1879 recollections of the whaler Edwin Palmer to Dunedin historian Dr T.M. Hocken, Chaseland was the headsman on sealing boats belonging to Sydney merchant (Robert) Campbell in Foveaux Strait in early 1826 (Begg and Begg 1979:300). On January 13 1827, Chaseland was on the *Glory*, in which Campbell had an interest, when it went ashore at Pitt Island in the Chathams (*The Australian* March 20 1827). Captain Swindells and some crew subsequently reached the Bay of Islands in a long boat. Chaseland and others reached New Zealand at Moeraki in an open sealing boat (Shortland 1851:153).

Herries Beattie, recorder of southern Maori lore, has accounts of the voyage from two Maori sources (given here from Church In press). An informant named Ellison states of Puna, wife of ‘Tame Titirene’ (Chaseland):

Her husband and she went to Chatham Islands & were wrecked. They built a boat & put sufficient food on it & came back here. She was a great tohunga & pulled one of her hairs, said a karakia & put it in the sea, so they had a safe voyage and landed at Moeraki.

Mrs Walscott (Ema Karetai), told Beattie: ‘Puna sat in the bow of his [Chaseland’s] boat from Chatham Island karakia-ing to keep the storm down.’ For southern Maori this was an important story about two notable individuals.

But Beattie (1919:219–220) has a less attractive story of Chaseland’s relations with Maori when he and other sealers, provoked by a raid on their camp at Arnett Point in south Westland (Beattie has Arnett’s Point) when one of their number was killed, attacked a Maori settlement in

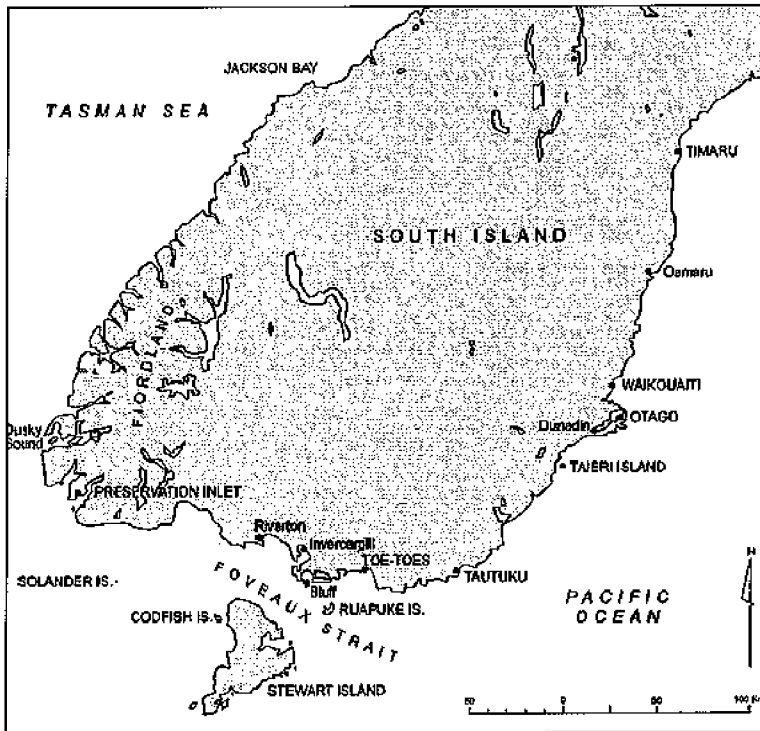


Figure 2. Southern New Zealand.

the vicinity of Okahu (Jackson Bay) or Arawhata. Several Maori were killed and a child named Ramirikiri, whose parents were killed, was left for dead by a berserk Chaseland who '... dashed her head on a rock'. But Ramirikiri survived and would later remind Chaseland of the event, who had nothing to say in reply. Another source has two sealers killed in the Maori raid and, from Chaseland's information on a map among papers of the survey ship *HMS Acheron*, an annotation that 30 Maori were killed in the reprisal (Starke 1986:xliv-xlv). The sealers then went to Anita Bay, Milford Sound, and attacked another Maori party, apparently killing all of them there or at Whareko, the next bay south. The Chaseland/*Acheron* map locates several tit-for-tat encounters between sealers and Maori in the 1820s.

Chaseland was among the first residents at Sealers Bay, Codfish Island (Whenuahou), after the island was set aside in the mid-1820s by Foveaux Strait chiefs for sealers and their Maori wives (Howard 1940:65; Anderson 1991:5; Middleton 2006:8–9). This was partly to help prevent just such conflict as described above between bands of sealers and Maori widely scattered around Foveaux Strait and northward. Doubtless it was useful for Maori to know where the sealers were, while sealers will have gained certainty for their settlement and security in numbers. This was important in 1833, when 200 Maori are said to have arrived on Codfish Island to 'exterminate' the sealers (Howard 1840:66–67). But the latter were warned by one of the Maori wives and met the war party on the beach armed with muskets, whereupon the sides agreed on peace, which was not broken afterwards.

On February 28 1831, Chaseland was one of three survivors of the *Industry* (Captain Wiseman), which left Codfish Island in a northerly gale for shelter and went down at Easy Harbour, Stewart Island (Howard 1940:85). Wiseman, 10 seamen and six Maori women were drowned (McNab 1913:86). The other survivors were Puna and George Moss who was living on Ruapuke Island. Howard says when the ship hit rocks entering the bay, Chaseland struggled to rescue Puna, but it was she who 'dragged the insensible Chaseland ashore', and the episode became the subject of a Maori song now lost. According to F. Hall-Jones (1944:157), Chaseland

got Puna ashore then went back to rescue others, but hit his head on a rock, so Puna in turn rescued him. Differing accounts of the wreck and events leading to it are outlined by Middleton (2006:29–30). Also from his sealing days, Chaseland related how he was the only survivor of an attempted landing on one of two small islands (Green or Taieri) south of Cape Saunders (Shortland 1851:153–154).

When Sydney capitalists set up the first New Zealand whaling stations many Foveaux Strait sealers turned to the new industry. The first southern station was Bunn and Company's operation at Preservation Inlet from 1829 (Prickett 2002:19). Right whales calved in the bays and inlets of southern New Zealand from as early as April, the season continuing until about October. Chaseland had previous experience on sea-going whalers. The first record of his involvement in New Zealand is in 1835 when he and James Brown took 11 whales in 17 days from Toe-Toes at the mouth of the Maitava River (Shortland 1851:300). This was reported by Edward Shortland (1851:145) as 'the greatest feat of the kind ever performed in the country'. As there were no casks at the station, the oil was lost and the only product will have been whalebone. In 1836, Chaseland and Brown obtained 30 tuns (Shortland 1851:300), which is the last record of whaling at Toe-Toes.

In 1837, 'Chaseling' was 'chief headsman' at Preservation Inlet, where he was first to bear the boy Charles Denahan before Edward Palmer beat him with a rope's end, from which he died, leading to a manslaughter trial at Sydney (McNab 1913:204–220). In April 1838, Octavius Harwood, the Weller brothers' storekeeper at Otakou, issued Chaseland with whaling gear for the season, probably as manager at one of the harbour stations (Tod 1982:36). In September 1842, James Joss of Stewart Island wrote to Harwood that Chaseland had taken two boats to set up a 'new fishery' at Jackson Bay (Howard 1940:371), a locality he knew from sealing days. This suggests he was prospecting for the 1843 season, as unless the news was many months old, it was too late for 1842. There was a whaling station at Jackson Bay, but whether it was established as early as 1842 and whether Chaseland whaled there both need confirmation. He was not at Jackson Bay in 1843, as in March that year he signed an agreement to whale at Waikouaiti with Stephen Smith and Thomas Jones (Tod 1982:93), and was in Waikouaiti in August that year at the height of the whaling season for his marriage to Puna (see below). Later in 1843, Chaseland accompanied Shortland (1851:141–164) on Johnny Jones' *Scotia* from Waikouaiti in his survey of Foveaux Strait settlements.

In 1844, Chaseland managed a three-boat, 25-man station at Taieri Island for Johnny Jones, taking 45 tuns of oil and two tons of whalebone (*NZ Spectator and Cook's Straits Guardian* February 12 1845). Dr David Monro, of Nelson, who accompanied Frederick Tuckett's expedition looking for a site for a proposed Scottish settlement in southern New Zealand, wrote on May 1 1844 that the party was '... hospitably entertained by a Mr. Chasland, the head man on the island, while his active Maori wife acquitted herself most respectably of the household duties of cooking and bed-making' (Hocken 1898:247; see Hocken 1898:215 for Tuckett's comments). In 1846, the two-boat, 18-man Timaru station under 'Chesland' took 43 tuns of oil and two tons of whalebone (*NZ Spectator and Cook's Straits Guardian* February 3 1847). Joseph (1903) tells of Chaseland being a partner of Palmer at Tautuku. If so, he was there some time between 1839 and 1846, as William Palmer was set up at Tautuku by Johnny Jones in 1839 and said himself he was eight years there, 'until the whales became scarce' (*Evening Star* July 4 1881). This has confirmation from 1847, being the first year the station is not listed in New Zealand production data (*NZ Spectator and Cook's Straits Guardian* January 8 1848), indicating it was closed by then.

From the above information, of variable quality, Chaseland was whaling at Toe-Toes in

1835 and 1836, Preservation Inlet 1837, Otakou 1838, Jackson Bay 1842 (?), Waikouaiti 1843, Taieri Island 1844, Timaru 1846 and Tautuku in one or more of the missing years between 1839 and 1846. In 1851, he was taken on as pilot for HMS *Acheron's* survey of the West Coast sounds (Howard 1940:130).

Chaseland was renowned among Foveaux Strait sealing and whaling gangs for his 'great size and strength' and 'was considered the best whaler in New Zealand' (Shortland 1851:153). In 'Reminiscences of Early Days', published in *The Otago Witness* December 12 1906, L. Langlands says of Chaseland:

... his mother being an Australian gin, from whom, probably, he inherited his wonderful sight, was a large, heavy, clumsy-looking man, but wonderfully light on his feet, and, despite his bulk, very active; when fast to a whale, on relinquishing the steer-oar to go to the bow of the boat to use the deadly lance, he would run along the gunnel as active as an acrobat.

There are stories of his extraordinary eyesight, such as seeing a whale invisible to the master of the *Amazon* who had the advantage of a telescope (Howard 1940:392). Church (In press:128) gives other claims by his contemporaries of an ability to see nearly a mile underwater. Shortland describes him as 'a universal favourite owing to his excellent temper; never being quarrelsome under any circumstances' (Shortland 1851:153). F. Hall-Jones (1944:157) writes of his 'eagle-eye, his uncanny knowledge of New Zealand waters, his almost super-human strength, courage, [and] prowess ...'. In 1856, aged nearly 60, he offered to fight the first Bluff constable in a trial of manhood (F. Hall-Jones 1944:159).

The best-known story of the legendary Tommy Chaseland relates to the naming of the South Otago headland 'Chasland's Mistake' (the Maori name is Makati; or Makate, see Roberts 1909). One version has him mistaking it in fog for Cape Saunders, which Joseph (1903) rightly thinks unlikely, given his knowledge of the coast and famous eyesight. Chaseland himself said that it tells of an occasion when, against orders, his gang attacked seals as soon as they made their seasonal return to that part of the coast, rather than leave them alone until settled, and that most therefore fled and were lost. Another version has Chaseland landing one evening but leaving the seals for the morning, by which time they had gone (Beattie 1948:10; J. Hall-Jones 1990).

Another story is from Tautuku (Joseph 1903). Whales were sighted one foggy June morning and boats launched after them. But when Chaseland made fast to a whale he was towed into the fog, and when he got close enough to use the lance the whale lashed out and destroyed the boat. Two Maori and a Pakeha were killed and Chaseland, Sam Perkins and a third Maori were left clinging to wreckage. After nearly an hour in the water and hidden from the other boats by fog, Chaseland stripped off and swam for the shore six miles away. The other two were then rescued, although the Maori died afterwards from exposure. Despite a search, Chaseland was not found and the other boats returned to Tautuku to report the loss. But late in the afternoon, he was seen after his long swim in the cold southern ocean, walking along the beach to the station, where he was revived by dry clothes and a pannikin of rum.

In his appetite for alcohol, too, Chaseland was legendary. Shortland (1851:152) saw him at Ruapuke Island drunk on 'sour wine' from a wrecked cargo and lying 'like a cask' on the bottom of their boat. According to F. Hall-Jones (1945:76-77), it was actually rum, part of the cargo of the *Lunar* wrecked at Waipapa Point. It had been brought to Ruapuke, but when all the men were drunk at the same time, the rum was hidden by the Maori women. Chaseland apparently knew where it was. In another story, Captain Stevens of the Otago, who had engaged Chaseland for a whaling voyage, found him drunk in a Dunedin hotel and lured him into a whaleboat to be taken to the ship only by the promise of rum applied as required on the way out (Langlands

1906). When Stevens tried to ration the rum and told him to wait until they reached the next point in the harbour, Chaseland's reply was, 'Pull, and be ___ to you', the incident giving its name to Pulling Point below Port Chalmers. In his liking for alcohol, he was no different from most sealers and shore whalers at the time.

The marriage of 'Thomas Chaseling' and 'Mary Puna' was formalised at Waikouaiti on August 14 1843 by the Rev. James Watkin (J. Hall-Jones 1990). They had no children. Puna was a relation of the Otago chief Taiaroa (Joseph 1903; Howard 1940:85), or his sister, according to Tuckett, who met her at Taiari Island in May 1844 (Hocken 1898:215). Begg and Begg (1979:278) give a short whakapapa showing Taiaroa and Puna as brother and sister, but Shortland's (1851:Table F) more extensive genealogical table does not name Puna. Whatever the relationship, Puna's ritual ability to ensure a safe passage from the Chatham Islands reflects and proclaims her high birth. Chaseland and Puna were together as early as January 1827, when they were wrecked on Pitt Island, and probably in 1826, when he lived at Codfish with other sealers and Maori wives, if not earlier. Puna died of influenza and was buried on January 6 1849 at Waikouaiti, aged 42 (McDougall pers comm. 2008).

On August 15 1850 at Ruapuke Island, Chaseland, then resident at Bluff, married Pakauhatu/Pakawhatu (Margaret Anthony in the marriage register), daughter of Anthony Remond and Esther Pura. The register has his age as 47 (he was probably 53) and hers as 15 (Wohlers Register of Marriages Nos 4 and 5, Hocken Library, Dunedin), although there is information giving her birth date as February 20 1837, and therefore 13 when she married (McDougall pers comm. 2008). They were to have six children: Maria born in 1852, Thomas 1854, John 1856, Caroline 1861, William Henry c. 1864 and Margaret 1866 (McDougall pers comm. 2008).

Thomas Chaseland died on Stewart Island on June 5 1869 (J. Hall-Jones 1990). His name is remembered in Chasland's Mistake and the associated Chaslands district, and by Chasland's Point on The Neck, Stewart Island, marked on Captain Wing's 1844 chart (Howard 1940:124, 126) and under Schoolhouse Point on the latest NZMS 260 map sheet. Chaseland also contributed to New Zealand science when he found a pair of moa feet at Waikouaiti, reported by Walter Mantell (1872:95). Mostly, however, he is remembered as a huge presence and character in the early contact period in southern New Zealand.

George Morrison

George Morrison was the son of Patrick Morrison, of County Tyrone, Ireland, who was convicted in March 1792, aged 19, and arrived in New South Wales on the *Boddington* on August 7 1793 on a seven-year sentence (Principal Superintendent of Convicts, Bound Indents, 1786–1799, State Records NSW). Patrick was one of many convicts who made for the sealing grounds when they finished their sentence. Having suffered for long under the often brutal and generally brutalising convict regime, they may have wished for nothing more than to go somewhere they would be left alone and where there was the prospect, at least, of earning a living, and possibly a great deal more. A generation later, whaling stations on both sides of the Tasman would offer the same attractions.

The younger Morrison was born on August 12 1817 on King Island, Bass Strait (Figure 3), and baptised with his brother Charles, older by one year, on October 9 1821 at St Johns, Launceston, when the family was living at Georgetown on the Tamar estuary (Baptisms in the Parish of St Johns, Launceston, Microfilm RGD 32/1, 1170/1821, Tasmanian State Archives). In the baptism register, their mother is named 'Elizabeth' and described simply as 'A Native'. Patrick Morrison is likely to be the same as buried at Launceston on March 19 1824 after drowning, although his age given as 54 does not quite match 19 years in 1792 (Register of

Burials, RGD 34/1, 1803–1838, 883/1824, Tasmanian State Archives). At the time, he is said to have been living at Launceston.

George Morrison may be the same as a Morrison in charge of a whaling party at Portland in 1837 (Townrow 1997:12), although he was 19 or 20 at the time, which is young for such a position. He first appears in New Zealand as whaling master at Macfarlane's fishery at Wairoa, Hawke's Bay (Figure 4), in its first seasons in 1844 and 1845 (*NZ Spectator and Cook's Straits Guardian* February 22 1845, December 6 1845), possibly arriving to set up the station when men and stores were landed from Macfarlane's *Kate* in December 1843. This date is given as part of evidence in a court case arising from Morrison selling whalebone to a man named Crummer when the station's production rightfully belonged to Macfarlane as owner (*NZ Spectator and Cook's Straits Guardian* September 27 1845). Crummer and Morrison claimed that Morrison and others were at Wairoa setting up a 'share party' before Macfarlane first arrived at the end of 1843. If so, this did not change Macfarlane's ownership of the fishery, although it does leave open the date of Morrison's arrival. The court found for Macfarlane. Morrison was at Wairoa just two seasons (*NZ Spectator and Cook's Straits Guardian* February 22 1845, December 6 1845) before managing Perry's Waikokopu station in 1846 (Wakefield 1848:193). In August 1849, his schooner *Neptune* was wrecked at Long Point on Mahia Peninsula (Ingram 1984:37). Later records of his New Zealand career have not been found.

Edward Tomlins

Edward (Ned) Tomlins was born at Cape Barren in 1813 to Samuel Tomlins of Kangaroo Island (Plomley and Henley 1990:103) and a woman whose name George Robinson of the Tasmanian Aboriginal mission gives as POOL.RER.RE.NER, or BULL.RUB, BULLROE, BULRA and BOOLROI (Plomley 1966:1002). Edward was baptised at St John's, Launceston, on January 22 1819 (Tipping 1988:197; Plomley and Henley 1990:103). His father was aged 20 when sentenced to seven years' transportation, reaching Sydney in 1803 on the *Calcutta* and Hobart on January 1 1804 (Index to Tasmanian Convicts, Tasmanian State Archives; Tipping 1988:317; Plomley and Henley 1990:103). He was discharged in 1809 (Tipping 1988:197) and was soon on the sealing grounds between Australia and Van Diemen's Land (Figures 1 and 3). Samuel Tomlins drowned in 1819 when the *Jupiter* was anchored at the Bay of Shoals, Kangaroo Island (Cumpston 1970:45; Plomley and Henley 1990:103).

His son is also given as Tomlinson and 'Edward Hanson', although according to Plomley (1966:1016), the latter may be an error, since it appears only in part of Robinson's journal which relies on a copy and where there are several apparently incorrect names. Robinson describes Tomlins in 1830 at Hunter Island as 'a fine stout well-made young man about eighteen years of age' (Plomley 1966:179). Plomley and Henley (1990:103) say he was 5 ft 8 inches (1.73 m) in height and stoutly built. George Dunderdale ([1898]:13) in 'The Book of the Bush' states that 'Black Ned was a half-breed native of Kangaroo Island'. In 1830, he was living on Hunter Island with 'NICK.ER.UM.POW.WER.RER.TER', or 'Mary', of Leven River or Ben Lomond, Tasmania (Plomley 1966:1018).

When Robinson visited in June 1830, the 'head man' of four Hunter Island sealers was Bay of Islands Maori 'John Witieye' (Plomley 1966:179), also probably an error, as elsewhere Robinson has MYTYE, MYTEE and MYET.EYE (Plomley 1966:1014). The name may have been 'Maitai'. The other men were Robert Drew (Rew or Rue, see Plomley 1966:1015), David Kelly and 'the half-caste youth, named Edward Hanson' (Plomley 1966:180; but see above). In December 1830, Tomlins was one of five Hunter Island men marooned on the Clarke Island

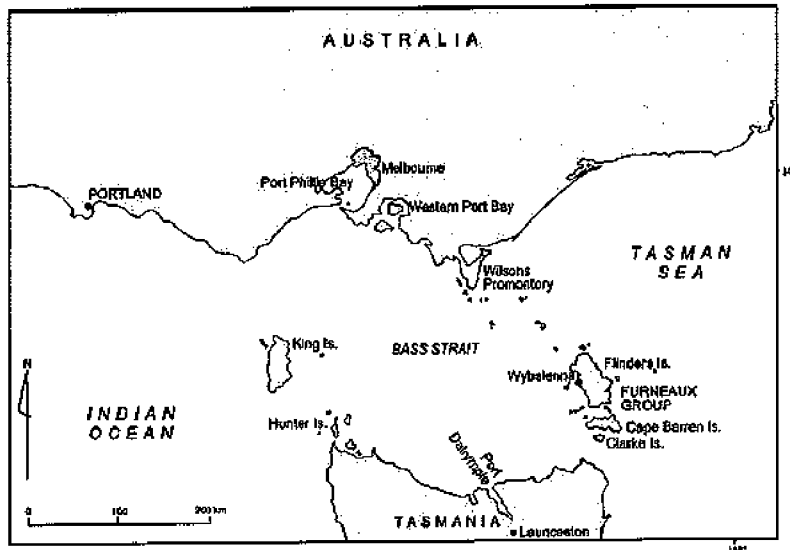


Figure 3. Bass Strait.

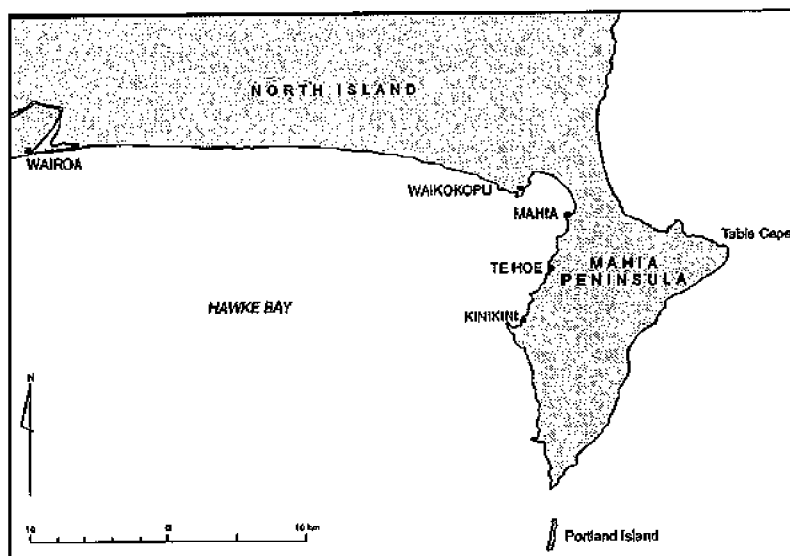


Figure 4. Northern Hawke's Bay.

reef when their boat was lost (Figure 3). Two disappeared trying to reach safety in a makeshift craft, the others living for eight days on seal meat and blood before being rescued (Plomley 1966:295–296).

In February 1832, Bulra arrived in Launceston from Kangaroo Island, where for years she had been living with a sealer named 'Young Scott' (Plomley 1966:801,1002). She went on to Hunter Island, probably because her son was there, but Edward left soon after on a whaling voyage to the 'western coast of New Holland', and may have sold or bartered his mother, who was soon living with John Dodson and then Robert 'Rew', both of them sealers and ex-convicts (Plomley 1966:1002). When Robinson returned to Hunter Island later in 1832, Bulra asked to be removed to the Aboriginal settlement on Flinders Island and was given up to him on August 17 (Plomley 1966:1002). At Flinders Island, she was probably at Lagoons until February 1833 and then at Wybalenna, when that settlement was established (see Birmingham 1992:129; Figure 3). In November 1832, Tomlins petitioned to have her returned to Hunter Island, but this was refused, Robinson advising: '... Tomlins is not a fit person to have charge of this woman

he being wholly under the influence of the other sealers and himself addicted to drunkenness and immorality' (Plomley 1966:802). Bulra died on Flinders Island probably before September 1835 (Plomley 1966:1002).

Tipping (1988:317) states that Tomlins 'was an associate of William Dutton in the early days of whaling at Portland Bay and became a famous harpooner' (Figure 3). Nash (2003:91–92) has Dutton whaling for Launceston entrepreneurs Griffiths and Connolly in 1832 at Portland, which may have been the destination of Tomlins' whaling voyage early that year (see above). He is also likely to have been one of 24 men taken to Portland by the *Henry* in April 1833 (Cumpston 1970:120) for the second season. Dunderdale ([1898]:13) says that by 1835, Tomlins was 'looked upon as the best whaler in the colonies, and the smartest man ever seen in a boat'. On March 19 1836, he left Launceston as a passenger on the *Thistle* (Index to Departures 1817–1867, from an original record POL (Port of Launceston) 458/2, p. 21, Tasmanian State Archives), probably for the Portland fishery at that time of year. The *Thistle* was at Portland as early as 1834, initially to set up the Henty station in opposition to Dutton (Cumpston 1970:123–124).

On December 20 1836, 'Edward Tomlinson' was one of two headsmen on the barque *Socrates* (Captain Dutton), which left Launceston on a whaling voyage (POL 458/2, p. 56, Tasmanian State Archives). In early May 1836, the *Socrates* returned to Launceston from Portland with 23 tuns of sperm oil, with news that 'bay whaling' had commenced there (Chamberlain 1989:21). Thus, Tomlins at this time may have been whaling the year round, for sperm whales from the *Socrates* in summer and for right whales at Dutton's Portland station from autumn to October. Cumpston (1970:115–125) has an account of Griffiths and the productive Portland fisheries (see Nash 2003:91–94).

It is not known when Ned Tomlins arrived in Hawke's Bay. Information on his New Zealand career comes largely from 'An Old Colonist', thought to be F.W.C. Sturm, writing in the *Hawke's Bay Herald* in June 1868: 'Where all were drunkards, Ned Tomlins was notorious; he was a valuable man, and an able headsmen.' In his 'Old Wairoa', Thomas Lambert (1925:368) describes Tomlins as 'said to be one of the best whalers that ever stepped into a boat' (apparently after Dunderdale), and recklessly generous, once giving away one of three sperm whales he had taken in exchange for a bucket of water. Lambert (1925:368) says he worked for Captain Mansfield and whaled out of Waikokopu and Kinikini. At Waikokopu, he probably whaled with Morrison, whom he may have known from Portland. Tomlins died there after a successful day's whaling. More drunk than others who were playing cards, he was turned out of a house, but insisted on trying to get back in. Finally, he was hit by the station owner, a man named Perry, and thrown from the door, later to be found dead outside. Perry himself read the burial service. This happened before Perry died of 'apoplexy' on the beach at Mahia in 1853.

Tomlins and Hipora Iwikatea of Mohaka had one son, also Edward Tomlins, who had three children, a girl Akenahi, a boy Tamati, and a second girl Hera. Hipora Iwikatea died on November 12 1900, her son Edward predeceasing her on December 15 1892 (Parsons pers comm. 2008).

Samuel Harrington

The Australian history of Samuel Harrington is more problematic. A published list of early 19th century sealer/Aboriginal liaisons in Tasmania has only one Harrington (Plomley and Henley 1990:64), who must logically be the same John Harrington said elsewhere in the same source to have lived in the Bass Strait islands with 'WORE.TFR.NEEM.ME.RUM.NER.TAT.TE.YEN.NE', otherwise 'Bet Smith', who was abducted by him from Cape Portland as a child (Plomley

1966:1020). Harrington was, of course, a convict, who, two days after being discharged at Sydney on May 25 1820, sailed on the *Little Mary* for Port Dalrymple and Bass Strait (Plomley and Henley 1990:82–83) and the freedom of the sealing grounds. He drowned at Gun Carriage Island (now Vansittart Island, at the eastern end of the strait, which lies between Flinders and Cape Barren Islands) about December 1824, after which Bet Smith was ‘seized’ by Thomas Tucker, who sold her to Thomas Beadon (Plomley 1966:1020), or she was ‘claimed’ by John Williams (Plomley and Henley 1990:83). According to Robinson, Tucker was among those active in shooting Aboriginal men at their fires and then abducting their women (Plomley 1966:1017).

Although the partner of John Harrington in the Plomley and Henley (1990:64) list is said to be from Van Diemen’s Land, rather than Australia (Cape Portland), this does not necessarily rule out Bet Smith or this particular Harrington. There is, however, a ‘half-caste’ Maria Harrington recorded twice by Plomley and Henley (1990:63): in 1827 aged 10 and living in the household of James Holman, and in an 1831 list of ‘half-caste’ children in Launceston, ‘aged about 17, a vagrant’. Maria cannot have been the child of a man who reached Tasmania in 1820, so there was one other Harrington/Aborigine liaison at least. Another John Harrington in Tasmania early enough to be the father of Maria, and perhaps Samuel, is listed among convicts brought from Norfolk Island in 1808 (Nobbs 1988:195), probably reaching Hobart on the *City Of Edinburgh* on October 5 that year (Nash pers comm. 2008).

‘T. McD.’ in *The Lyttleton Times* (July 6 1885) refers to Harrington at the time of a visit to Wairoa by Bishop Selwyn, Church of England archbishop of New Zealand, as follows:

One very powerful fellow, a half-caste Australian black, was known by the name of Shiloh. He was “cock of the walk” at the Wairoa, being a first-class boat-steerer, harpooner, fighter, fifty-two inches round the chest, and a hard drinker. These virtues retained him possession of the position he had gained.

The journal of Wairoa missionary the Reverend James Hamlin dates Selwyn’s visit to December 1845 (Hamlin Journal, December 9 and 11 1845, Hocken Library). Harrington was thus under Morrison at Wairoa, raising the possibility that he and perhaps Tomlins as well, and other Australian whalers, all came with Morrison at the end of 1843, possibly from Portland. Lambert (1925:370) writes that Harrington was a ‘Tasmanian half-caste’ who whaled at Mahia, Kinikini and Waikokopu and for Joseph Carroll at Te Hoe.

Something of Harrington’s style is told by a court case regarding an incident at Mahia in 1851, reported by boatsteerer Joseph Mason (Hawke’s Bay Province, Donald McLean Papers, Folder 130A, Alexander Turnbull Library, Wellington). Harrington is said to have threatened and attacked his men, intending, it seems, to make them leave and break their contracts so he would not have to pay them out at the end of the season. This suggests he was owner of the station; otherwise, he presumably would not have had to bear the cost. Mason wrote to Donald McLean, as the only Justice of the Peace in the region, complaining that he had been ‘most Barbarously ill treated and my life threatend by one Samuel Harrington in a most shoking maner and sent away without my wages’.

According to Mason, one day in October 1851, Harrington ordered the boat launched from his station with the purpose of going across the bay to Waikokopu for rum:

Some time after we arrived there he was intoxicated aboute 12 o’clock at night he came down to the Boat Swearing in a most awfull maner and Enquiting where Hooper another whaler was the answer was lying on the grass where drunken people in general lay, he ordered us to launch the Boat which we did, when a short distance on the water he got up as one deprived of all reason and Seized a Boat Spade used to cut up the Whale’s Blubber, and a most deadly instrument.

The boat with Harrington and two European and five Maori whalers aboard got home 'after a while and with much trouble'.

Next morning, Harrington:

... raving like a mad man took up an ax and threatening to kill all around. Struck one of the Natives on the Back but did not do him much hurt the Native running at the time and he after him.

He then took up a tomahawk, swearing to kill anyone who opposed him. The whalers kept away from him, 'knowing that all our wages depended upon his honesty and being now to the amount of from £21 to £30 and upwards so that it appears that he did not wish to pay us ...'. Harrington then set fire to a house used by his Maori whalers.

The court case did not consider the violence, which was probably thought the business only of those involved. Instead, it set out to determine current whaling practice in order to establish the justice of Mason's claim. Four affidavits dated December 6 1851 are important in describing whaling practice in the bay at the time. The court's decision was for Mason to be paid out at a 1¼ share, although this may not have ended the matter, as among the case papers is a note: 'Mason agrees to take the share of 1 & ¼ which cannot agree to pay', and initials which might be 'SWH'. Other cases heard the same day were Mason versus Carroll, seeking payment for the repair of a boat, and Stewart versus Mason for defamation and assault (McLean Journal, Vol. 4, p. 68, Alexander Turnbull Library), so Mason, too, may have been a difficult character.

Samuel John Harrington is listed in the 1858 Ahuriri and Hawke's Bay electoral roll as 'whaler' of Mohaka, in Hawke's Bay south of Wairoa, qualifying as a householder (*Hawke's Bay Herald* August 28 1858). He is listed under Mahia as a whaler in the first issue of *Wise's Directory*, published in 1875 (Feilding ed 1875). He died at Wairoa on December 15 1875 (*Hawke's Bay Herald* December 17 1875).

Aborigines in New Zealand sealing and shore whaling

In *Making Peoples*, historian James Belich (1996:131–132) notes the importance of the sealing industry to early Maori/Pakeha contact in southern New Zealand. He goes on, 'Sealing also pioneered a Tasman world', and he describes sealers, whalers and seamen who did not distinguish between two sides of the Tasman in their activities, with Bass and Foveaux Straits and the subantarctic islands all being referred to as the 'Sealing Islands', in 'a joint past historians in both countries seem reluctant to recognise'. Sydney was for long one of New Zealand's most important cities and New Zealand one of Sydney's most important hinterlands (Belich 1996:134). Sealing and whaling industries developed capital needed for Australia's early economic growth and were among New Zealand's first significant commercial activities (see Steven 1965; Hainsworth 1972).

Tomlins, Morrison and Harrington came from the mixed-race sealing communities of Bass Strait and Kangaroo Island. Robinson describes how sealers shot Aboriginal men as they sat around their fires, and then abducted the women (e.g. Plomley 1966:966). Or women were traded by Aborigines themselves, from their own tribes or others from which they had been abducted (Ryan 1977:30–31). At first, women were made available for the sealing season only, but as sealers began to stay on throughout the year, so too did their 'wives'. By 1816, sealers each might have two to five women for sexual and domestic purposes. Robinson refers to them as 'slaves' (Plomley 1966:1008). In 1830, Tomlins' headsman at Hunter Island, the Maori 'John Witieyc', had two women (Plomley 1966:180). Coastal tribes were devastated, Robinson reporting just three women with 72 men in Tasmania's northeast, also in 1830 (Plomley 1966:966).

Chaseland had a very different early history in the Hawkesbury district near Sydney. His

father also was a convict. Nothing is known of his mother, who was probably from a local tribe. He was born a year before his father's first child with his European wife. It seems he was then brought up at Windsor with step-brothers and step-sisters. He is said to have been illiterate (J. Hall-Jones 1990). Were his father's other children also illiterate? In 1807, a half-brother was also named Thomas after his father, who clearly was more pleased with his black son in 1797 than he was 10 years later. Chaseland almost certainly left home before the first available record on the 1817 *Jupiter* crew list when he was already 20.

In the best contemporary account of New Zealand shore whaling, Edward Jerningham Wakefield (1845 I:311) identifies the men as ex-seamen, runaway convicts from New South Wales and Van Diemen's Land, and their descendants whom he knew as 'currency lads' and whom he greatly admired. But this term did not include those discussed here. In the language of the day, they were Australian or Tasmanian half-castes or 'New Holland blacks' – that is, they were identified as being of mixed race or by their Aboriginal parentage. When Australia was naming and identifying with its colonial-born and the country they were making their own, such men were on the margins. Thomas Chaseland's half-brother of the same name was 'currency' that he could never be.

But if 'half-castes' felt excluded from the new Australia, the main reason for moving to New Zealand was undoubtedly economic. The opportunity of making a living, and even doing well, was an attraction in any industry first to exploit a new resource – grasslands and gold are other important Australasian examples. The men introduced here were experienced in sealing or whaling or both. Chaseland was probably a sealing headsman from his first arrival. His leading role at Toe-Toes in 1835 tells of previous whaling experience. Tomlins had a big reputation in Australian whaling, while Morrison must have been experienced to have begun in New Zealand as manager at Wairoa. Harrington was 'cock of the walk' in his first or second year at Wairoa and was later station manager at Mahia – or owner, since he planned to benefit from driving his men off to avoid paying them out. Hawke's Bay drew whalers from districts of declining production on both sides of the Tasman as the last significant whaling region to be developed, the first season probably being 1837 (Prickett 2002:103).

Other factors may have come into decisions to move to New Zealand. Chaseland may have met Puna on a previous visit, encouraging him to make the move. Also, such men were used to the freedom and opportunity of Sydney's ocean frontier and New Zealand would have appealed to those used to life beyond the reach of government at Bass Strait and Kangaroo Island. In July 1847, Hawke's Bay missionary William Colenso wrote of a Wairoa informant describing local whalers as 'runaway soldiers and man-of-war-men, convicts from New South Wales and Van Diemen's Land, who openly boast of their defiance of the Government' (Dinwiddie 1916:28).

Other Aborigines in New Zealand include one of five sealers picked up in 1813 after several years stranded on the rock that is Solander Island at the western entrance to Foveaux Strait (McNab 1907:149–150), and a Kangaroo Island woman and two-year-old child who survived the killing of a sealing gang from the *General Gates* by Maori at Stewart Island, then to live on their own for eight months before being rescued and returned to Sydney in April 1824 (Cumpston 1970:66; Richards 1995:35). A 'Tasmanian half-caste' known only as 'Darkie Coon' whaled at Mahia and Wairoa, Hawke's Bay (Lambert 1925:371). There are records of several others.

Maori also left home on sealing and whaling voyages. On October 23 1813, five were on the *William and Ann* at Sydney (Cumpston 1970:36). On the *Glory* out of Sydney for Port Dalrymple and the seal fishery on October 30 1819 was 'Jacky Miti (Myry)' (Cumpston 1970:53), likely to be the same as Tomlins' headsman on Hunter Island in 1830 (see above).

Tahitians, too, were in Sydney's multi-racial crews. In 1816, four were on the *Endeavour* for Kangaroo Island (Cumpston 1970:42). When the *Perseverance* left for Kangaroo Island on July 21 1824, there were four Maori and two Tahitians in a crew of 21 (Cumpston 1970:69). In 1838, 30 Maori made up a third of the men in 15 whaleboat crews racing at Hobart, afterwards performing a haka for spectators (Morton 1982:169). For such men, the arrival of European commerce in the Pacific opened a new world of opportunity.

On both sides of the Tasman, the domestic comfort and sexual services provided by women was an important aspect of the relationship between native people and sealers and whalers. We have seen how adversely this impacted on Aborigines. There was also a major impact on Maori communities, although the trajectory of the native and newcomer relationship was very different. As in Bass Strait, Maori women were at first traded only for the sealing or whaling season, the men returning to Sydney in the off-season. Later, this changed to permanent relationships as men stayed throughout the year, cultivating gardens or living with their wives' relations. In 1844, Tuckett estimated that between Banks Peninsula and Riverton, 'two-thirds of the native women, who are not aged, are living with European men' (Hocken 1898:223). In northern Hawke's Bay, many of today's Maori families have whalers' names.

Tasmanian Aborigines were killed or removed from their land, and women bartered, sold or stolen (Ryan 1977). Maori tribes, on the other hand, remained on their land and in many cases incorporated the newcomers into tribal society and whakapapa, especially when women were from chiefly families, as in the case of Puna (see Anderson 1991:7). This is not to say that killings did not take place. Chaseland himself was involved, as we have seen, but where Maori could set aside Codfish Island as a home for sealers, or in Hawke's Bay insist on rent from whaling stations, they certainly had more power.

In the history of European expansion, men of Aboriginal descent working in the New Zealand sealing and whaling industries have personal histories at the edge of a fraught and often bloody European/native relationship. Yet in other ways, they were like the men they worked with, runaway or discharged convicts and their sons, ex-seamen who as likely as not had jumped ship, adventurers or men simply on the run from another life. All were looking for economic opportunity and many also escape from a past. All made their way in an environment new to them, where what counted were experience and skill and personal qualities. In shortcomings and achievements, Chaseland, Morrison, Tomlins and Harrington reflect sealer and whaler culture of the time. While they did not escape the labels 'half-caste' or 'black', they made the best of opportunities at Australasia's early maritime frontier, and so played a part in social, economic and ultimately political transformations of the time and place.

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"T"

- In winter 2001 a cow/calf pair travelled from Orutua River mouth to Whangawehi then Hicks Bay, and was sighted over a period of 18 days (Fig. 7).
- In winter 2002, a cow/calf pair first sighted in Bell Block, New Plymouth was later sighted near Tapua stream and Titahi Bay, and was last sighted in Palliser Bay. Sightings were reported over a period of 21 days (Fig. 8).

Figure 6. Residency period of cow/calf pairs and other southern right whale groups sighted around mainland New Zealand between 1976 and 2002.

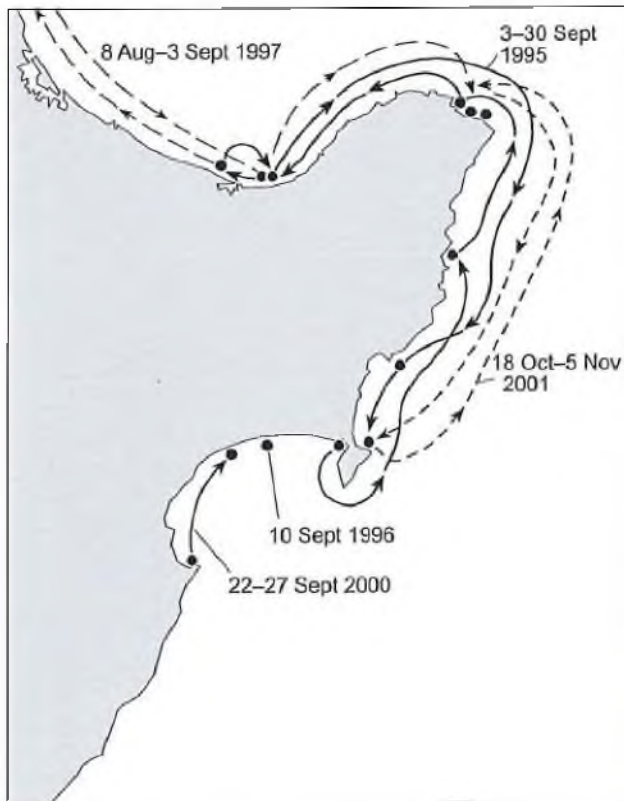
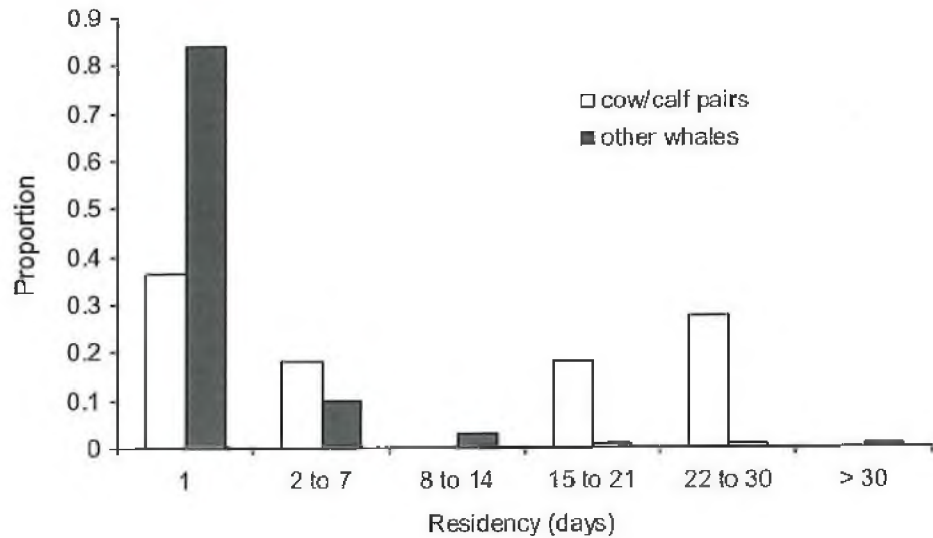


Figure 7. Movements and residency of five southern right whale cow/calf pairs sighted in East Coast/Hawkes Bay Conservancy.

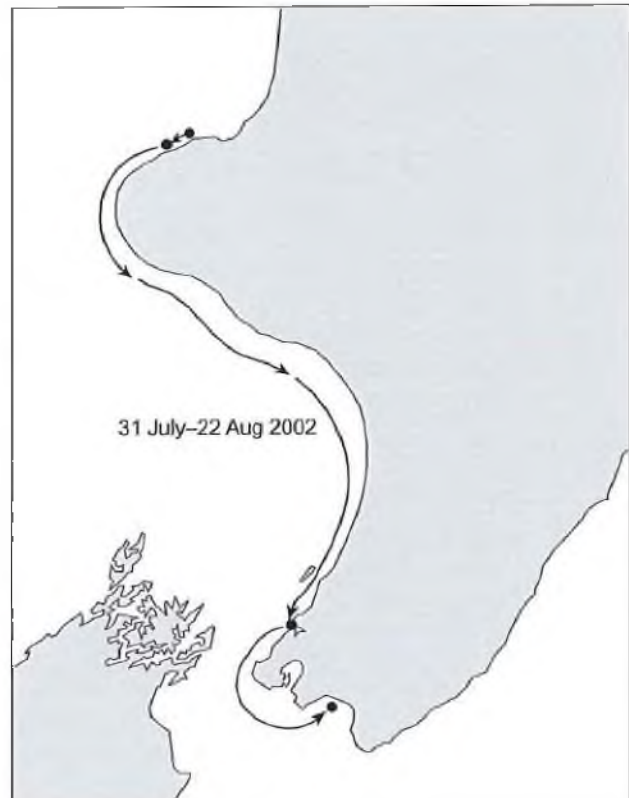


Figure 8. Presumed movement and residency of a southern right whale cow/calf pair sighted in Wanganui/Wellington Conservancy in winter 2002.

This is the exhibit marked "T" referred to in the affidavit of Toro Edward Waaka
 affirmed at NAPIER this 24TH day of FEBRUARY 2014
 before me Signature [Signature]
 A Solicitor of the High Court of New Zealand / Justice of the Peace
 Hilton B. Verry
 Solicitor
 Napier
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4.6 BEHAVIOUR

The behaviour of sighted whales was very seldom recorded (Appendix 1). Reported behaviours included travelling, 'rolling around', playing and leaping, 'frolicking', tail lobbing, possible feeding and swimming up and down a beach. Less demonstrative behaviours (e.g. resting), likely occurred but were not specifically reported.

Mating groups usually consist of 2-8 whales, are highly active, creating white water, and can last for hours to a few days. The group of 10-12 whales reported in Foveaux Strait over winter 1990 and the group of 3-4 whales reported around Otago Peninsula in winter 1994 were likely engaged in mating activity.

The behaviour of cow/calf pairs included resting and travelling close inshore, sometimes over a period of several days and weeks. Nursing was not reported but likely occurred.

TABLE 2. SOUTHERN WHALES (n = 26) PHOTO-IDENTIFIED AROUND MAINLAND NEW ZEALAND.

YEAR	DATE	LOCATION	REPRODUCT. STATUS	PHOTOGRAPHER	USEFULNESS			DISTINCT. CATEGORY
					LEFT	RIGHT	TOPSIDE	
1990	26 Jul	Te Wae Wae Bay/Southland		Andy Cox, DOC	good	good	good	2
1990	?	Port Pegasus/Southland		Unknown		good		1
1992?	May	Mahurangi Harbour/Auckland		Thelma Wilson, DOC		poor		2
1994	6 Jul	St Kilda/Otago	Adult	Graeme Loh, DOC		good	poor	0
1994	6 Jul	St Kilda/Otago	Adult	Graeme Loh, DOC, Natural History Unit	poor	good		2
1994	25 Jul	Warrington Beach/Otago	Adult	Otago Daily Times, DOC staff	fair		poor	2
1994	25 Jul	Warrington Beach/Otago	Adult	DOC staff, Natural History Unit	poor		poor	0
1996	Aug	Jacky Lee Bay/Southland		Anonymous	fair	good	good	2
1996	Dec	Paterson Inlet/Southland		DOC staff	good	poor		3
1997	10 Aug	Mt Maunganui/Bay of Plenty	Cow	Paul Keyes, Bay of Plenty Polytech	fair	fair		3
1997	1 Oct	Wellington Harbour/Wellington		Mark Round, Dominion	good	poor		2
1998	13 Sep	Taraunga/Bay of Plenty	Cow	Kim Westerskov, Tauranga	good	good	fair	1
1998	29 Aug	Kaikoura/Canterbury		Rob Suisted, DOC			good	2
1999	19 Jan	Kaikoura/Canterbury	Sub-adult	Dennis Bauman, Dolphin Encounter, T. Markowitz, Dusky Dolphin Project	fair		poor	2
2000	23 Jul	Sumner/Canterbury		Jim Lilley, Marine Watch	good			2
2000	27 Jul	New Plymouth/Wanganui		TVNZ One news	poor	good	poor	2
2000	28 Sep	Hen and Chickens Is/Northland	Adult	Carol Turner		poor		3
2000	28 Sep	Hen and Chickens Is/Northland	Adult	Carol Turner		fair	good	1
2000	1 Jul	Tory Channel/Nelson-Marlborough		Zoe Battersby, Dolphin Watch Marlborough	good	good		1
2000	29 Aug	Parapara sandspit/Nelson-Marlborough		Simon Hall, DOC		poor	fair	3
2001	8 Aug	Bluff Harbour/Southland		B. Barcourt, Southland Times	poor			3
2001	4 Aug	Brighton Beach/Canterbury		Sam Dufresne, Otago University	poor	poor		1
2001	27 Aug	Lyal Bay/Wellington	Sub-adult	Peter Rees, Te Papa		poor		1
2001	11-20 Sep	Endeavour Inlet/Nelson-Marlborough		Zoe Battersby, Dolphin Watch Marlborough, Jim Tannock, Marlborough Express	good	good	poor	1
2002	24-25 Jul	Bay View/East Coast-Hawkes Bay	Adult	Hawkes Bay newspaper, TVNZ	fair	poor	poor	2
2002	3 Sep	Whangarei Harbour/Northland		Ingrid Visser	good	good	fair	1

4.7 PHOTO-IDENTIFICATION

A total of 26 different whales were photo-identified and photographs were collated into a mainland photo-identification catalogue (Table 2, Appendix 3). Whales were photo-identified in 10 of the 11 Conservancies where they were sighted: Southland (n = 5), Otago (n = 4), Canterbury (n = 4), Nelson-Marlborough (n = 3), Wellington (n = 2), Bay of Plenty (n = 2), East Coast/Hawkes Bay (n = 1), Wanganui (n = 1), Auckland (n = 1) and Northland (n = 3). These included photographs of two cows, two juveniles, seven adults and 15 other whales of unknown status. Overall, 20 whales had at least one good or fair photograph to compare with the New Zealand subantarctic catalogue. One of the six whales for which only poor photographs were available was mottled (highly distinctive), and two others were very distinctive. Overall, pictures of 23 whales were considered of good enough quality to be matched to the subantarctic catalogue. The remaining three whales with poor quality photographs were not distinctive and the ability to match them was low.

No match was made between these 23 photo-identified whales from around mainland New Zealand, and the extensive subantarctic catalogue. None of the small subset of top-side profiles from mainland New Zealand waters (n = 6) were matched to the Australian regional catalogues during a workshop held at the South Australian museum in March 2002.

5. Discussion

5.1 LIMITATIONS AND BIASES

The results presented in this report are based on non-systematic sighting reports of southern right whales obtained from several sources. Determination of species identity, group size and group composition was likely to be subject to error depending on the observer's experience. Efforts were made to verify species identity, group size and composition by viewing photographs or video, interviewing observers, and relying on the description provided. Only confirmed sightings of right whales were included in the analysis. It is possible that some sightings listed as 'unconfirmed' may have been of right whales. As such, the interpretation of the results is based on the minimum number of confirmed southern right whale sightings reported between 1976 and 2002.

Efforts were made to minimise the likelihood of duplicate sightings by grouping sightings when whale groups of similar size or composition were reported on the same day or within a few days of each other, and in the same location or within a few kilometers of each other. This grouping of sightings may downward-bias the number of true unique sightings. However, some sightings may have been duplicate sightings of whales seen several days, weeks or even months apart. Considering sightings as unique when they were in fact resightings would create an upward bias for the true number of unique sightings. Without individual photo-identification (or genetic tagging), these biases are impossible to resolve.

5.2 EVIDENCE OF A SIGNIFICANT RECOVERY OF SOUTHERN RIGHT WHALES AROUND MAINLAND NEW ZEALAND

The number of sightings around mainland New Zealand has increased since the first right whales returning to mainland New Zealand waters after whaling ceased was reported in Tory Strait in 1963 (Gaskin 1964). Between 1976 and 1987, single sightings of southern right whales were occasionally reported in some years. Two decades later, southern right whales have been consistently reported each year, and both the number of sightings and the number of whales are significantly increasing over time. The extent of this increase is difficult to quantify, in part because of the sighting biases mentioned above, and because sighting effort has been inconsistent over time. The University of Auckland/DOC southern right whale research project started in 1995 and, during the first few years of this project, several radio and television interviews, printed press articles, and a TVNZ documentary highlighted the need for more information on southern right whales. This would have increased the awareness of members of the public, whale-watch operators, and DOC regional staff to reporting southern right whale sightings. The estimated rates of increase are likely to be affected by the inconsistent effort in the reporting of sightings and should not be considered as actual rates of population increase, rather as indications that the population is increasing at some unknown rate.

What is of greater concern is that there has not been an increase in sightings of cow/calf pairs and the total number of reproductive females sighted around the mainland is very low. At most, 11 different cow/calf pairs have been sighted around the mainland in the last 25 years. If females show site fidelity and a three-year calving interval, the number of calving females in this population may be closer to four or five. If the whales sighted around the mainland are distinct from those of the subantarctic islands (see below), it suggests that the population around New Zealand is extremely depleted, and that the most vulnerable and important (cows and calves) component of the population should be afforded maximum protection.

5.3 IDENTIFYING IMPORTANT NEW ZEALAND COASTAL HABITAT FOR RIGHT WHALES

The location of reported sightings over the past two decades indicates that several coastal areas are important to right whales. East Coast/Hawkes Bay and Bay of Plenty Conservancy are of primary importance for southern right whale cows with calves in winter and spring. This distribution is concordant with what is known of the historical distribution based on catch records. Hawkes Bay was home to at least 13 whaling stations, 5 of which were on Mahia Peninsula (Prickett 2002). Multiple sightings over several days suggests that the stretch of coastline between Napier and Mt Manganui is currently the primary calving habitat for right whales around mainland New Zealand.

Historical records show that there were at least 17 whaling stations between Preservation Inlet in the southwest of Southland and Moeraki north of Dunedin

(Prickett 2002). The relatively high number of sightings in Southland, in particular Stewart Island, and in Otago suggests that this stretch of coastline continues to be preferential habitat, at least for non-cow/calf pairs. Banks Peninsula, Marlborough Sounds and Wellington are, to a lesser extent, also habitat for right whales.

5.4 DETERMINING RESIDENCE TIME AND BEHAVIOUR OF RIGHT WHALES

Burnell (2001) reported that the residency of non-accompanied whales (non-cows) is often interrupted by periods away from the wintering ground. Without systematic collection of photographs of whales visiting around mainland New Zealand it is difficult to comment on the length of residency as unique sightings may be of the same whale moving offshore and returning near shore at a later date. Overall however, it appears that the residency for non-cow/calf pairs in a specific location is short, usually one or two days and rarely more than a week. The one exception is the group of 10 whales reported to remain in Foveaux Strait for two months over winter 1990. Without photographic documentation, it is impossible to determine if a group seen on several occasions consisted of the same or different whales. The spectacular nature of the group size and overall paucity of whales sighted around the mainland suggests these may have been the same whales.

The behaviour of whales sighted was rarely reported and conclusions regarding habitat use are limited. Descriptions of 'frolicking' and aerial displays by singletons are consistent with that of lone individuals on the subantarctic wintering grounds (Patenaude 2002a). The brief residency time of non-cow/calf whales and the few mating groups observed suggests that for most whales, waters around mainland New Zealand may be a migratory corridor and not a breeding ground.

The use of habitat by cow/calf pairs appears to be very different. On average, the residency times were longer, and in five cases whales were sighted of periods exceeding two weeks. Within these periods, cow/calf pairs were intermittently resting and traveling up close to the coast, a behaviour observed on the subantarctic calving grounds (Barrett 2000).

5.5 DETERMINING BY PHOTO-IDENTIFICATION MATCHING IF THE RIGHT WHALES AROUND THE MAINLAND REPRESENT A SEPARATE STOCK

No photo-id matches were made between the catalogues from waters around the mainland and the subantarctic islands. Despite close to 180 right whales sighted around mainland New Zealand, and contacting a vast network of individuals and organisations, only 26 photo-identifications of whales were collated and, of those, 23 were useful for matching. The photographic data analysed represented 12% of the whales sighted. One or several positive matches would have indicated

movement between the two grounds. However, the absence of a match is difficult to interpret in view of the few photographs available.

Richards (2002) proposed, based on historical distribution and seasonality of catch records, that part of the southern right whales migration route include northward movements through the subantarctic waters in early summer, reaching the subantarctic islands in April (Fig. 9), and then most whales moving further north during late April and early May. Cow/calf pairs then moved inshore to the coastal waters of mainland New Zealand while males remained further offshore, where they spent winter months until continuing a northward migration to waters east of the Kermadec Is in late spring.

Movements of large distances between coastal wintering grounds and offshore islands such as those between South Africa and Tristan de Cunha/Gough I (2769 km) and between Argentina and Tristan de Cunha (4424 km: Best et al. 1993) suggest that historical movements between Auckland Is and the mainland (350 km) were likely. However, analysis of mtDNA sequence frequencies has shown that significant differentiation can occur between southern right whale calving grounds despite the lack of geographic barriers to movement (Baker et al. 1999; Patenaude 2002a). If visitors to waters around mainland New Zealand, and whales wintering in the subantarctic islands, were part of a single New Zealand stock then the low numbers of whales around the mainland and the very few reproductive females would suggest an extreme range contraction.

Alternatively, two stocks of right whales may have existed in New Zealand waters. Based on whaling records and the overlap in the timing of arrival of whales at Campbell I. and around the mainland, Dawbin (1986) suggested that the right whales that were historically found at Campbell and Auckland Is might have been part of separate subantarctic stock, while the whales from around mainland New Zealand/Kermadecs were part of a different stock. While the mainland stock was virtually extirpated, adverse weather conditions and the failure of the whaling stations, especially at Campbell I., may have saved the subantarctic stock from extinction. Extirpation of one or more local stocks has been suggested as a reason for the change in distribution around the coast of South Africa (Best 2000), and could likely be the case for New Zealand. The apparent lack of significant recovery of the stock from around mainland New Zealand may be due to the loss of maternally directed cultural memory of that habitat following extirpation (Clapham & Hatch 2000). If so, the current Auckland Is population may represent the limit of range expansion of the remnant subantarctic stock. The whales visiting waters around mainland New Zealand may be the few survivors left of a severely extirpated stock, which contain as few as 4-11 reproductive females.

5.6 MANAGEMENT RECOMMENDATIONS

Until sufficient photographic or genetic data is collected around mainland New Zealand from southern right whales for conclusive analyses, a cautionary approach suggests that these whales be considered as part of a separate stock. The following recommendations are directed at detecting trends in abundance over time, monitoring existing and potential threats and gathering information to determine conclusively the nature of stock division within New Zealand waters.

1. The highest priority should be afforded to the photo-identification collection of parturient females visiting waters around mainland New Zealand. This information is essential to adequately estimate population size of reproductive females and to determine trends in recruitment rates. One of the limiting factors to collecting photographs is the brief residency time of most whales and the fact that by the times whales have been reported they have left the area. Conservancies where cow/calf pairs have been sighted in the past (East Coast/Hawkes Bay, Bay of Plenty, Wanganui, Wellington, Otago, Canterbury) should develop a plan of quick response to public sightings of southern right whales. Public awareness of the need to collect photographic data could be increased by advertising in the media during key seasons (winter, spring). Marine mammal-watching tour operators and fishing vessels should also be encouraged to immediately contact DOC when they sight a right whale. Because of the relatively long residency time of most cow/calves, the likelihood of successful collection of photographs will be high once a response plan is in place.
2. In Conservancies with regular sightings of southern right whales (e.g. Southland, Otago, East Coast/Hawkes Bay, Canterbury) key personnel should be trained by a qualified person to collect photo-identification and conduct biopsy sampling of southern right whales. A summary sheet describing how to approach a right whale in a small vessel or in an aircraft with minimal disturbance, how to photograph a whale and what specific data to record should be circulated among the different Conservancies.
3. Annual or biennial meetings between right whale researchers and DOC staff should be reinstated to allow researchers to communicate directly with field operators most likely to encounter whales. The success of data collection will be best achieved by encouraging communication between the two groups.
4. The Bay of Plenty and Hawkes Bay coastlines represent an important habitat for the most critical component of the population around mainland New Zealand. In this region especially, the marine mammal protection guidelines should be strongly enforced, and every attempt should be made to minimise anthropogenic threats and disturbances to cows and calves. Adverse effects of human-related activities on this component of the population would have a serious impact on the recovery of this severely depleted population. The International Whaling Commission identified ship strikes and incidental entanglements in fishing gear as the most significant causes of human-induced mortality in right whales (IWC 2001). The author strongly recommends that any existing or proposed human-related activities in the area such as marine farming, vessel traffic, whale-watching and oil or gas exploration be carefully evaluated and monitored for any potential negative effects.

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Appendix 1

SOUTHERN RIGHT WHALE SIGHTINGS AROUND MAINLAND NEW ZEALAND
LISTED BY CONSERVANCIES. UNCONFIRMED SIGHTINGS SHOWN IN ITALICS.

YEAR	DATE	LOCATION	GROUP SIZE	EST. LENGTH	PH.- ID	REPORTED BY	LAT	LONG	COMMENTS	
Auckland										
1992?	May?	Lower Mahurangi Harbour	2	cow/calf		yes	Thelma Wilson, DOC	36°30'	174°45'	
2000	1 Nov	Army Bay, Whagaparaoa Peninsula	1	juvenile			Scott Wyatt	36°37'	174°48'	caught in fishing line
Bay of Plenty										
1989	4 Nov	Tauranga	1	juvenile	10 m		Barry Hartley	37°36'	176°23'	heading N
1995	29 Aug	Taraunga Harbour	1				Bay of Plenty Times	37°38'	176°10'	
1995	21-24 Sep	Torere to Otawaire Bay	2	cow/calf			Patrick Kavanagh	37°57'	177°01'	seen over several days around Mahia Peninsula. resight of whale seen 3-18 Sep
1997	8 Aug	Whakatane River	2	cow/calf			Coastguard report forwarded by Rosemary Tully, Marlborough Dolphin Watch	37°57'	177°01'	
1997	10 Aug	Whakatane Head, Mt Maunganui	2	cow/calf	c. 14 m, c. 6 m	yes	Paul Keyes, Bay of Plenty Polytech	37°39'	176°12'	likely resight of whale seen 8 Aug in 7-8 m water
1997	15 Aug	Mt Maunganui	2	cow/calf			Daily Post	37°39'	176°12'	likely resight of whale seen 8 Aug
1997	22 late Aug	Mt Maunganui to Opotiki	2	cow/calf			Daily Post	37°39'	176°18'	likely resight of whale seen 8 Aug
1998	13 Sep	3 Miles Reef off Taraunga, Bay of Plenty	2	cow/calf		yes	Kim Westerkov	37°40'	176°12'	
2001	10 Feb	S of White I.	1		13 m		John Baker, MV Ma Cheri	37°40'	177°12'	<i>unconfirmed, very smooth back</i>
2002	27-28 Aug	Whakatane Head	1				Rosemary Tully	37°56'	177°02'	heading E
Canterbury										
1991	Aug	Kaikoura	2	cow/calf			B. Todd in Duffy & Brown 1994	42°24'	173°42'	
1991	21 Sep	Kaikoura	2	cow/calf			The Press, The Star (Christchurch)	42°24'	173°42'	200 m offshore, likely resight of whale seen Aug
1991	22 Oct	Kaikoura	1				Barbara Todd	42°24'	173°43'	800 m offshore
1998	29 Aug	Kaikoura	1			yes	Rob Suisted, DOC; Dennis Baerman	42°24'	173°42'	
1998	4 Sep	Taylor's Mistake	1				Jim Lilley, Marine Watch	43°35'	172°47'	
1998	week of 10 Sep	Christchurch	1	juvenile	9 m		Tom Thomson	43°33'	172°46'	likely resight of whale seen 4 Sep
1998	16 Sep	Southside, Banks Peninsula	3				Simon Childerhouse, DOC	c. 43°48'	173°45'	

YEAR	DATE	LOCATION	GROUP SIZE	EST. LENGTH	PH. ID
1999	19 Jan	Goose Bay to South Bay, Kaikoura	1 juvenile	10-12 m	yes
2000	23 Jul	Sumner	1		yes
2000	3 Sep	Little Port Cooper	1		
2000	11 Sep	Le Bons Bay	1		
2000		Birdlings Flat, Canterbury	3		
2001	15 Jun	Akaroa	2 adult, juvenile		
2001	4 Aug	Brighton Beach	1		yes
East Coast/ Hawkes Bay					
1976	15 Aug	In coastal bays north of Gisborne	1	12 m	
1976	23 Aug	Port of Napier	1		
1980	19 Sep	Bayview	1		
1992	16-18 Aug	Porangahau Beach	1		
1994	9 Aug	Wairoa-Mahia Peninsula	1		
1994	10 Aug	Opoutama Beach, Mahia Peninsula	1		
1994	19 Aug	Whirinaki, Hawkes Bay	1 adult		
1995	3-18 Sep	Mahia Peninsula	2 cow/calf	16-18m	
1996	10 Sep	Waihua Bay	2 cow/calf		
1997	3-4 Sep	Hicks Bay and Te Araroa	2 cow/calf		
1998	31 Aug	Mahia Beach	1 juvenile	8-10 m	
1998	3 Sep	Wainui Beach	1		
1998	10 Nov	20 n.m. south of Cape Kidnappers	2		
1999	3 Aug	Bay of Mahia Beach, Mahia Peninsula	1		
1994	9 Aug	Wairoa-Mahia Peninsula	1		
1994	10 Aug	Opoutama Beach, Mahia Peninsula	1		

REPORTED BY	LAT	LONG	COMMENTS
April Harlin, Tim Markowitz, Dusky project, Dennis Duurman	42°29'	173°34'	with dusky dolphins
Jim Lilley, Marine Watch	43°34'	172°46'	
Jim Lilley, Marine Watch	43°37'	172°46'	
Jim Lilley, Marine Watch	43°44'	173°06'	likely resight of whale seen 3 Sep
Jim Lilley, Marine Watch	43°50'	172°42'	
Diane Clement, Otago University	43°53'	173°00'	
Sam Dufresne, Otago University	43°32'	172°46'	
F. Robson's day book, reported by C. Duffy, DOC	38°43'	178°05'	seen for several days in bays north of Gisborne up to Mahia Peninsula
F. Robson's day book, reported by C. Duffy, DOC	39°29'	169°56'	likely resight of whale seen 15 Aug
F. Robson's day book, reported by C. Duffy, DOC	39°25'	176°52'	
Carol Sciascia	40°18'	176°40'	swimming up and down beach, making regular brief dives—feeding?
Malcolm Smith, DOC	39°03'	177°26'	
Malcolm Smith, DOC	39°04'	177°50'	likely resight of whale seen 9 Aug
Mary Mayes, Whirinaki; Hans Rook, DOC	39°23'	176°54'	400 m offshore, heading SE
Jamie Quirk, DOC	39°04'	177°52'	travelled to Te Araroa then Whakatane and back to Tolaga Bay
Andrew Glaser, DOC	39°06'	177°17'	migrated E through BOP waters and rested by boat ramp
Daily Post	37°38'	178°22'	likely resight of whale seen late Aug Opotiki, BOP
Malcom Smith, DOC	39°05'	177°52'	
Ms Storm Dunn	38°42'	178°06'	likely resight of whale seen 31 Aug
Thalassa Kawachi aboard Rilyara	39°54'	177°16'	300 m from fishing boat
Helen Jonas, DOC	39°04'	177°50'	
Malcolm Smith, DOC	39°03'	177°26'	
Malcolm Smith, DOC	39°04'	177°50'	likely resight of whale seen 9 Aug

1994	19 Aug	Whirinaki, Hawkes Bay	1	adult	
1995	3–18 Sep	Mahia Peninsula	2	cow/calf	16–18m
1996	10 Sep	Waihua Bay	2	cow/calf	
1997	3–4 Sep	Hicks Bay and Te Araroa	2	cow/calf	
1998	31 Aug	Mahia Beach	1	juvenile	8–10 m
1998	3 Sep	Wainui Beach	1		
1998	10 Nov	20 n.m. south of Cape Kidnappers	2		
1999	3 Aug	Bay of Mahia Beach, Mahia Peninsula	1		
2000	6 Sep	Whakamahia Beach south of Wairoa River mouth	1	adult	15 m
2000	7 Sep	Bayview, Westshore, Napier	1?	adult	13–16 m
2000	8 Sep	Tahaenui Beach, north of Whakaki Lagoon	1	juvenile	8–10 m
2000	10–14 Sep	Long Pt. Mahia Peninsula	1		
2000	12 Sep	Black's Beach, Mahia Peninsula	1		
2000	13 Sep	Opoutama Beach, Mahia Peninsula	1		
2000	14 Sep	Opoutama Beach, Mahia Peninsula	1		
2000	14 Sep	Anaura Bay	1	adult	
2000	22 Sep	Bayview	2	cow/calf	6 m
2000	22 Sep	Whirinaki	2	cow/calf	
2000	27 Sep	Mohaka River	2	cow/calf	
2001	3 Jan	Clifton, Napier South	3		
2001	1 Sep	Mahia Beach	1		
2001	1 Oct	Gable End Foreland	1		
2001	18 Oct	Orutua River mouth. East Cape	2	cow/calf	
2001	19 Oct	Whangawehi	3	cow/calf with escort	
2001	26 Oct	Tolaga Bay wharf	4	adults	
2001	5 Nov	Hick's Bay wharf	2	cow/calf	
2002	24–25 Jul	Westshore and Bayview	1	adult	15 m
2002	Sep	Ocean Beach	1		
Nelson/Marlborough					
1991	25–27 Oct	Fighting Bay	1		

Mary Maycs, Whirinaki; Hans Rook, DOC	39°23'	176°54'	400 m offshore, heading SE
Jamie Quirk, DOC	39°04'	177°51'	travelled to Te Araroa then Whakatane and back to Tolaga Bay
Andrew Glaser, DOC	39°06'	177°17'	migrated E through BOP waters and rested by boat ramp
Daily Post	37°38'	178°22'	likely resight of whale seen late Aug Opotiki, BOP
Malcom Smith, DOC	39°05'	177°52'	
Ms Storm Dunn	38°42'	178°06'	likely resight of whale seen 31 Aug
Thalassa Kawachi aboard Rilyara	39°51'	177°16'	300 m from scampi boat
Helen Jonas, DOC	39°04'	177°50'	
reported to Helen Jonas, DOC	39°04'	177°23'	400 m off beach, rolling around
John Adams, DOC	39°27'	176°53'	70-200 m offshore
Helen Jonas, DOC	39°03'	178°42'	heading towards Mahia, 200 m off beach, likely resight of whale seen 6 Sep
reported to Malcolm Smith, DOC	39°09'	178°50'	likely resight of whale seen 6 Sep
reported to Malcolm Smith, DOC	39°03'	177°50'	likely resight of whale seen 6 Sep
reported to Malcolm Smith, DOC	39°04'	178°51'	likely resight of whale seen 6 Sep
reported to Malcolm Smith, DOC	39°04'	178°51'	likely resight of whale seen 6 Sep
DOC sighting report	38°14'	178°19'	likely resight of whale seen 6 Sep
John Adams, DOC	39°25'	176°52'	
Hans Rook, DOC	39°23'	176°54'	likely resight of whale seen 22 Sep
Hans Rook, DOC	39°07'	177°12'	likely resight of whale seen 22 Sep
Flipper Robson's diary	39°38'	177°01'	
reported to Helen Jonas, DOC	39°05'	177°52'	
<i>Boyd McGregor, local charter operator</i>	38°32'	178°17'	<i>unconfirmed</i>
commercial fisher reported to Jamie Quirk, DOC Gisborne	37°38'	178°27'	close to shore, inside Port Elliot wreck
reported to Helen Jonas, DOC	39°05'	177°58'	very close to shore, resight of whale seen 18 Oct + 1 whale
reported to Jamie Quirk, DOC	38°22'	178°19'	
nephew of Hal Hovell, DOC	37°34'	178°18'	SE towards East Cape, likely resight
Hans Rook, DOC	39°25'	176°52'	split right pectoral
Hans Rook, DOC	39 45	177 00	
Bill Cash, reported in Duffy & Brown 1994	41 20	174 12	possible resight of whale seen 22 Oct, Kaikoura

YEAR	DATE	LOCATION	GROUP SIZE	EST. LENGTH	PH. ID
1994	7 Jul	Rununder Pt, 1 n.m. SW	3		
1994	7 Jul	Coombe Rocks, 2 n.m. E	4		
1995	2 Aug	Glasgow Is	2	1 juvenile	
1996	24 Jun	Port Underwood, 3 n.m. ENE	2		
1997	18 Aug	Perano Head	3	adults	
2000	1 Jul	Tory Channel	1		yes
2000	27 Aug	Awaroa Estuary mouth	1	juvenile	12 m
2000	29 Aug	Parapara sandspit	1	juvenile	13 m
2001	11-20 Sep	Dryden Bay, Endeavour Inlet; Clova Bay	1	juvenile	10 m
Northland					
1970s	Dec	Russell wharf	1	juvenile	7-8 m
1981	?	Black Rocks, Bay of Islands	3		
1988	?	South of Poor Knights Is	4		
2000	30 Jul	Bay of Islands	1		
2000	28 Sep	Hen and Chickens Is	2	adults	yes
2000	Oct	Rocky Bay, Tutukaka	2		
2001	Dec	Doubtless Bay	2		
2002	3 Sep	Whangarei Harbour	1		yes
Otago					
1994	6 Jul	St Kilda Beach	2	adults	yes
1994	9 Jul	Otago Harbour	1		
1994	19 Jul	Shag Point swimming north up Kariki Beach	1		
1994	19-22 Jul	Papanui Beach	3	1 juvenile?	

REPORTED BY	LAT	LONG	COMMENTS
Zoe Battersby, Dolphin Watch Marlborough	41°204'	174°15'	going WNW
Zoe Battersby, Dolphin Watch Marlborough	41°21'	174°09'	going NNE. likely resight of whale seen 7 Jul. + 1 whale
Zoe Battersby, Dolphin Watch Marlborough	41°18'	174°15'	going E
Zoe Battersby, Dolphin Watch Marlborough	c. 41°20'	174°05'	
Zoe Battersby, Dolphin Watch Marlborough	41°12'	174°22'	
Zoe Battersby, Dolphin Watch Marlborough	41°14'	174°15'	
Hugh Mytton, Totaranui Camp Manager, Nelson paper	40°51'	173°02'	
Simon Hall, DOC	40°43'	172°41'	likely resight of whale seen 27 Aug
Zoe Battersby, Dolphin Watch Marlborough; Bill Cash, DOC	41°07'	174°12'	with dusky dolphins
Graham Clifford	35°36'	174°07'	<i>unconfirmed</i>
Graham Clifford	35°07'	174°01'	stayed with boat for 30 min
Cawthorn 1990	35°30'	174°44'	
Andrew Ryding, University of Auckland	35°11'	174°12'	Whale Rock near Okahu I.
Carol Turner, Papatoetoe	35°56'	174°44'	feeding
Jenny Burling	35°36'	174°32'	Social. likely resight of whale seen 28 Sep
George Wattbank	c. 34°57'	173°30'	<i>unconfirmed</i>
Ingrid Visser	35°48'	174°27'	
Karen Baird, Graeme Loh, Richard Nichol, DOC	45°54'	170°41'	200-300 m offshore, heading N, seen on 4 Jul Tomahawk Beach
Graeme Loh, DOC	45°49'	170°40'	up to Hamilton Bay and past the old whaling station, likely resight of whale seen 4 Jul
Dave Houston	45°25'	170°48'	likely resight of whale seen 9 Jul
George Lay, tour operator	45°52'	170°45'	same whales in same location for 4 days, 2 arc resights

1994	21 Jul	Victory Beach	3		
1994	23 Jul	Off Taiaroa Head, then Long Beach and Aramoana Spit	2		
1994	24 Jul	Off Warrington Beach	4		yes
1994	31 Jul	Tomahawk Beach	1		
1995	13 Oct	Tahakopa Bay, Catlins	2	possible calf	
1995	27 Oct	Taiaroa Head	1		
1995	12 Nov	Shag Point	1		
1995	13 Nov	Otago Harbour entrance	1	juvenile	10 m
1995	16 Nov	Taiaroa Head and harbour entrance	3		
1995	25 Dec	Taiaroa Head	2		
1996	19 Oct	1 n.m. off Taiaroa Head	1		
1996	8 Dec	Outside Otago Harbour entrance	1		
1998	19 Sep	Taiaroa Head	1		
1999	23 Jan	St Clair Beach, Dunedin	1		
1999	25 Sep	St Clair Beach, Dunedin	2		
1999	26 Oct	3 n.m. N off Taiaroa Head	3		
1999	20 Nov	Waikouiti Bay	3		
1999	22 Nov	Karitane	3		
2000	14 Feb	Port Chalmers	1		
2000	8 Apr	West of Nugget Point	1		
2000	4 Sep	Moeraki	1		
2000	5 Sep	Taiaroa Head	1		
2001	11 Sep	St Kilda	2	possible calf	
2002	9 Jun	Sandfly Beach	1	juvenile	12 m
2002	21 Jul	Aramoana mole	2		
2002	11 Aug	Taiaroa Head	1		
2002	27 Sep	Otakou, Otago Harbour	2	cow/calf	15 m, 6 m

Karen Baird, Chris Lalas, DOC	45°50'	170°45'	likely resight of whale seen 19 Jul
Sandra McGrouther	45°47'	170°42'	likely resight of whale seen 21 Jul
DOC sighting report	45°43'	170°37'	2 in surf off Surf Club and 2 c. 200 m off Blueskin Bay, likely resight of previous days
Liz Baynes, Tim Shaw, Murray Smith	45°54'	170°41'	heading N, likely resight
Tour operator Mary Sutherland	46°34'	169°30'	playing in surf
Monarch Cruises	45°46'	170°44'	
Dave Houston	45°29'	170°49'	heading S
Jason Braid on fishing vessel	45°48'	170°43'	swam up harbour until Wellers Rock, likely resight of whale seen 12 Nov
<i>Reported to Monarch Cruises</i>	<i>45°46'</i>	<i>170°44'</i>	<i>unconfirmed</i>
<i>Reported to Monarch Cruises</i>	<i>45°46'</i>	<i>170°44'</i>	<i>unconfirmed, heading S</i>
<i>Fisher reported to Monarch Cruises</i>	<i>45°46'</i>	<i>170°45'</i>	<i>unconfirmed</i>
<i>Reported to Monarch Cruises by Spirit of Freedom</i>	<i>45°47'</i>	<i>170°44'</i>	<i>unconfirmed</i>
Monarch Cruises	45°46'	170°44'	
G. Loh	45°55'	170°33'	playing and leaping clear of water
D. Nelson, DOC	45°57'	170°33'	going N
<i>Signal station, reported to Monarch Cruises</i>	<i>45°45'</i>	<i>170°44'</i>	<i>unconfirmed</i>
Otago Daily Times	45°38'	170°40'	
DOC sighting report	45°39'	170°39'	resight 20 Nov?
Otago Daily Times, Monarch Cruises	45°49'	170°39'	
<i>Richard Win, Seiryu Maru 12</i>	<i>46°24'</i>	<i>172°11'</i>	<i>dead, floating on back, unconfirmed</i>
DOC sighting report	45°22'	170°50'	sighted at Wairouiti Beach 5 days earlier
Monarch Cruises	45°47'	170°44'	likely resight of whale seen 4 Sep
Dean Nelson, DOC	45°55'	170°31'	150 m off beach, slow moving around tidal disturbance, feeding?
Eduardo Secchi, University of Otago	45°54'	170°40'	200–300 m from shore
G. Loh, DOC	45°47'	170°44'	
S. Hellyer, DOC	45°47'	170°45'	heading N
Richard Oliver, Monarch Cruises	45°49'	170°41'	seen following day at Cape Saunders heading S

YEAR	DATE	LOCATION	GROUP SIZE	EST. LENGTH	PH. ID
Southland					
mid-1980		Freshwater Basin, Milford Sound	1		
1988	12 Sep	Omaui	2		
1990	26 Jul	Te Wae Wae Bay	10+	2 juvenile	yes
1990	19 Aug	Colac Bay	1		
1990	?	Port Pegasus, Stewart I.	1		yes
1991	2 Sep	Stirling Point, entrance to Bluff Harbour	1		
1992	22 Jul	Beacon Pt, Bluff	2		
1992	8 Sep	Te Wae Wae Bay near Pahia Point	2	cow/calf	
1992	9 Oct	Mouth of Lyvta River, Doubtful Sound	1		18 m
1994	Jan	Acker's Point, Halfmoon Bay	2		
1995	21 Sep	Inside Bluff Harbour	1	adult	18 m
1995	4 Oct	Mouth of Lords River, Stewart I.	1	adult	
1995	13 Oct	Pegasus near Albion, Stewart I., inside of Pearl I.	1		12-14 m
1995	16 Nov	Murray River, Stewart I.	1		
1995	21 Sep	Big Glory Bay, Stewart I.	1		
1995	1-21 Sep	Te Wae Wae Bay	3		
1996	21 Sep	Bluff Harbour entrance	2		
1996	16 Oct	East Cape, Stewart I.	1		
1996	17 Aug	Howell's Point, Riverton	1		
1996	19 Sep	Porpoise Bay, Catlins	1		
1996	23 Sep	Porpoise Bay, Catlins	2		
1996	15 Oct	Bluff Harbour	1		
1996	13-16 Sep	Colac Bay	1		
1996	Aug	Paterson Inlet, Stewart I.	1		
1996	Dec	Ringa Ringa Beach and Ulva I., Paterson Inlet	1	adult	
1996/97?		Horseshoe Bay, Stewart I.	1		
1997	June	Milford Sound	1		
1998	19 Jun	Port Pegasus, Stewart I.	2		

REPORTED BY	LAT	LONG	COMMENTS
Lusseau & Slooten 2002	44°39'	167°57'	stranding
<i>Southland Conservancy</i>	46°31'	168°15'	<i>very large, unconfirmed</i>
Andy Cox, DOC	46°13'	167°30'	social group, seen over a 2-month period in Foveaux Strait
<i>Southland Conservancy</i>	46°22'	167°54'	<i>unconfirmed</i>
Mike Aviss, DOC	47°13'	167°40'	
Southland Conservancy	46°37'	168°21'	last seen off Dog I.
<i>Southland Conservancy</i>	44°40'	169°08'	<i>one tangled in orange net, seen from ferry later, no net, unconfirmed</i>
Southland Conservancy	46°18'	167°37'	
<i>Southland Conservancy</i>	45°28'	167°16'	<i>unconfirmed</i>
Brent Beaven, DOC	46°54'	168°10'	
Southland Times	46°35'	168°18'	frolicking, likely resight of whale seen 21 Sep
Hilary Squires	47°08'	168°07'	
Gary Neave	47°10'	167°40'	showing tail, likely resight of whale seen 4 Oct
Dave Waters	46°48'	168°01'	swimming S
Mussel farmers reported to DOC; Southland Times	46°59'	169°07'	
Southland Times	46°18'	167°37'	
Southern Air	46°37'	168°21'	heading S out of inlet
M. Peterson	47°01'	168°14'	
Southland Conservancy	46°23'	168°02'	150-200 m offshore
Reported to DOC	46°39'	169°07'	500 m offshore
Reported to DOC	46°39'	169°07'	heading S, one likely resight of whale seen 19 Sep
<i>Reported to DOC</i>	46°37'	168°21'	<i>unconfirmed</i>
<i>Reported to DOC</i>	46°22'	167°54'	<i>unconfirmed</i>
Anonymous report to DOC	46°56'	168°03'	
P. Dobbins, P. Lowan, P. Crouchy	46°58'	168°03'	stayed a few days
Brent Beaven, DOC	46°53'	168°08'	up and down beach all day
Lusseau & Slooten 2002	44°40'	167°54'	
R. Shaw, Breaksea Girl	47°12'	167°40'	spent 2 days

1998	19 Jun	Port Pegasus, Stewart I.	1			
1998	2 Jul	Porpoise Bay, Catlins	1			
1998	20 Jul	Port William, Stewart I.	3	adult		
1998	3 Aug-20 Sep	Butterfield Beach, Halfmoon Bay Stewart I.	1			
1999	6 Jan	Ulva I., east side	1			
1999	29 Sep	Thule and Fred's Camp	1			
2000	16 Feb	South Head at Curio Bay	2			
2000	Sep	Bluff Harbour	1			
2001	26 May	Porpoise Bay, Catlins	1+			
2001	8 Aug	Bluff Harbour	2		12 m	yes
2001	25 Sep	RingaRinga Beach	1	juvenile	9 m	
2001	1 Nov	Curio Bay	1			
2002	19 Jun	Hares Ears, Doubtful Sound	2	adults	large	
Wanganui						
1990	29 Oct	Port Taranaki	1			
1993	25 Feb	15 n.m. offshore of Motonui	1			
1997	25 Jun	Waikaranga, New Plymouth	1			
1997	8 Jul	Offshore New Plymouth	1			
1997	25 Jun	1 n.m. off Port Taranaki	1			
2000	27 Jul	New Plymouth	1			yes
2000	16 Aug	Pukearuhe, North Taranaki	1			
2002	31 Jul	Bellblock, New Plymouth	1?			
2002	1 Aug	Tapuae Stream entrance south New Plymouth	2	cow/calf		
Wellington						
1993	Winter	Sinclair Head, south coast Wellington	1			
1997	29 Mar	Baring Head, east of Wellington Harbour	3			
1997	1 Oct	Wellington Harbour	2			yes
1999	6 Sep	Houghton Bay	1			
2001	27 Aug	Lyall Bay	1	juvenile	12 m	yes
2002	2 Feb	Tuteremoana, Kapiti I.	5	3 adults, 2 juveniles	16 m, 12 m	
2002	4? Jun	SE of Taputeranga I., Island Bay	1			
2002	16 Aug	Titahi Bay	2	cow/calf		

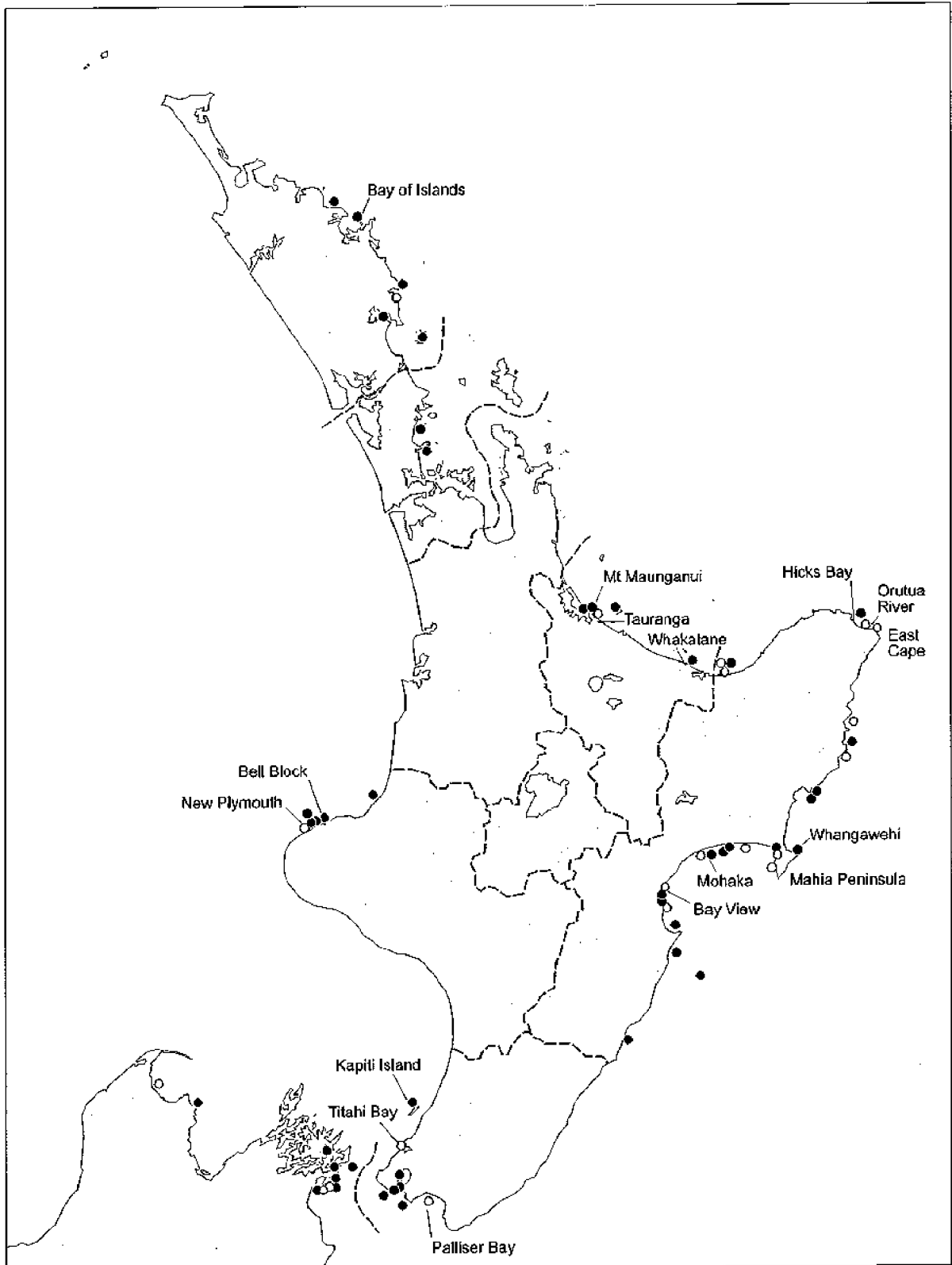
Alan Tennison	47°12' 167°40'	resight
DOC sighting report	46°39' 169°07'	stayed 2 hrs
Southland Conservancy	46°49' 168°08'	4 n.m. offshore heading NW
Brent Beaven, DOC	46°55' 168°09'	8 m
<i>Southland Conservancy</i>	<i>46°56' 168°11'</i>	<i>black and huge, unconfirmed</i>
Southland Conservancy	46°57' 168°02'	
Nancy Gee, DOC	46°40' 169°07'	50 m offshore, travelling from the north
Southland Times		
Alison Balance	46°42' 169°05'	
Bob Hawkes, Mana Charters	46°42' 168°20'	accompanied by dolphins
Sharon Pasco, DOC	46°56' 168°10'	
DOC sighting report	46°42' 169°05'	
Bob Walker, Renown	45°16' 166°50'	very social, also seen 18 June
Oakura Daily News, from Bryan Williams, DOC	39°03' 174°02'	
<i>Reported to Bryan Williams, DOC</i>	<i>c. 38°45' 174°18'</i>	<i>unconfirmed</i>
Barry Hartley	39°04' 174°00'	
Barry Hartley	38°59' 173°59'	5-7 n.m. offshore
<i>Bryan Williams, DOC</i>	<i>39°02' 174°02'</i>	<i>unconfirmed, heading S</i>
One news	39°03' 174°03'	
Bryan Williams, DOC	38°53' 174°31'	close to shore, possible resight of whale seen 27 Jul?
Bryan Williams, DOC	39°02' 174°06'	in 15 m water
Bryan Williams, DOC	39°05' 173°58'	in 12 m water, heading S, likely resight of whale seen 31 Jul
Bruce Dix, DOC	41°22' 174°43'	
Bruce Dix, DOC	41°25' 174°52'	300-400 m offshore
The Evening Post	41°17' 174°48'	
Peter Simpson, DOC	41°20' 174°47'	
TVNZ	41°20' 174°48'	
Bruce Dix, DOC	40°50' 174°54'	moving about slowly in the shallows
Marco Zeeman	41°20' 174°47'	1 n.m. offshore, breaching
Bruce Dix, DOC	41°06' 174°50'	likely resight of whale seen 1 Aug near New Plymouth. See 15 Aug in Palliser Bay

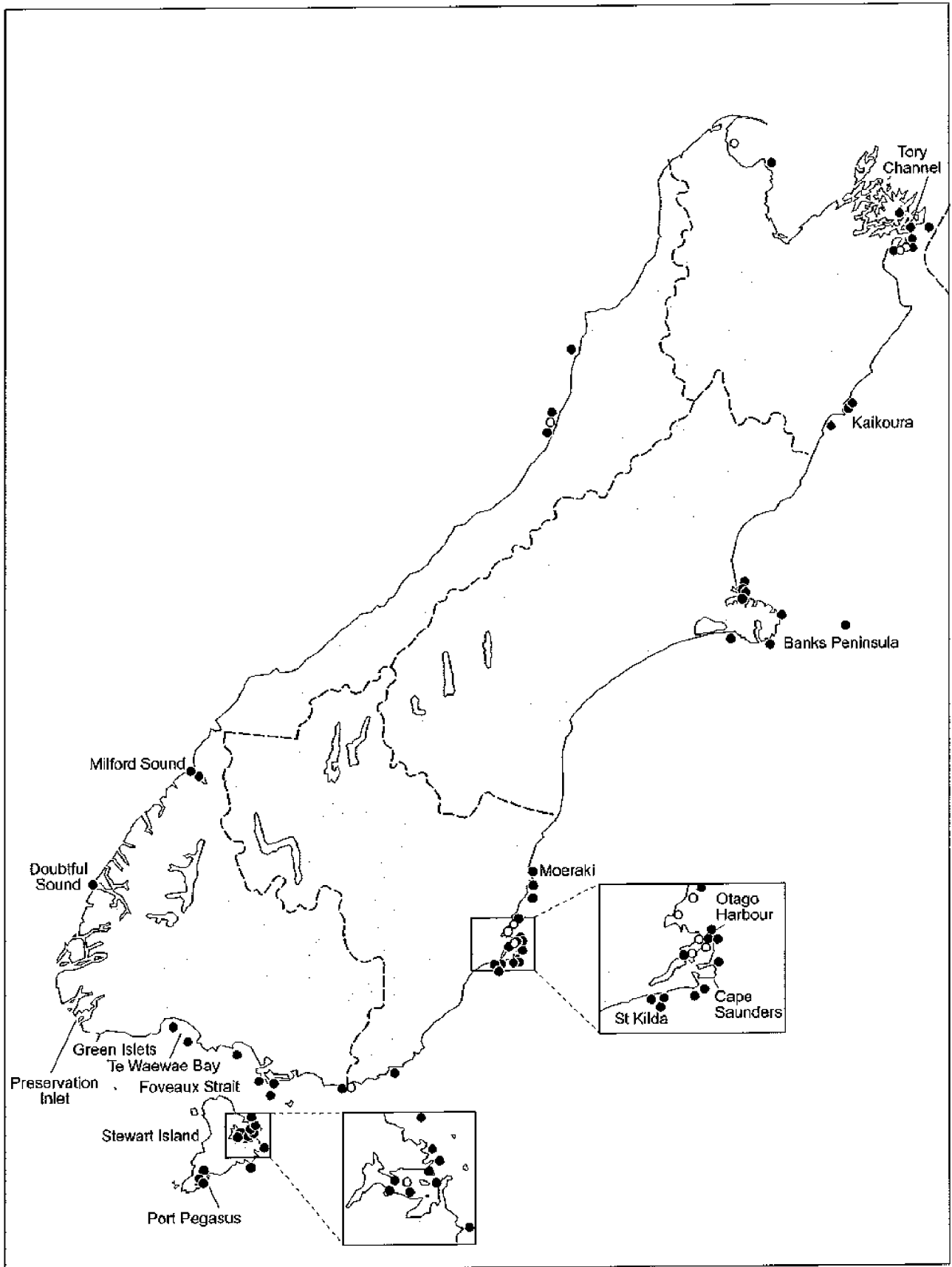
YEAR	DATE	LOCATION	GROUP SIZE	EST. LENGTH	PH. ID
2002	21 Aug	Palliser Bay	2	cow/calf	
West Coast					
1988	17-18 Jul	Karoro	1		
1996	Spring	<i>Jackson Bay</i>	1		
2000	19 Jul	North Beach Cobden and Blaketown Beach	1	1.4 m	
2000	30 Jul	Grey River mouth	1		
2002	27 Jul	Paparooa coast, between Greymouth and Westport	1		

REPORTED BY	LAT	LONG	COMMENTS
Roger Bunckenberg, Wellington Flight Centre	41°24'	175°04'	likely resight of whale seen 16 Aug
Don Neal, Greymouth Evening Star	42°29'	171°12'	tail lobbing
<i>Brent Trolle, DOC</i>	<i>43°58'</i>	<i>168°45'</i>	<i>unconfirmed, black whale</i>
GES, Trevor Johnston	42°27'	171°12'	close to river mouth and beach, feeding?
Phil Lowe, Dolphin Adventure Tours	42°27'	171°12'	possible resight of whale seen 19 Jul
Reported to D. Neal, DOC	42°00'	171°21'	

Appendix 2

DETAILED LOCATIONS OF SOUTHERN RIGHT WHALE SIGHTINGS BY CONSERVANCY





"U"

This is the exhibit marked "U" referred to in the affidavit of Toro Edward Waaka affirmed at	
<u>NAPIER</u>	this <u>7th</u> day of
<u>FEBRUARY</u>	2014 before me
Signature: <u>[Signature]</u>	Hilton R Verry Solicitor Napier
A Solicitor of the High Court of New Zealand / Justice of the Peace	

TRANSCRIPT**Video of Robert Nelson interview at Ngati Pahauwera Whanau Fishing Competition held on 12 January 2014 - extract relating to fire on the beach**

Interviewer (Bonny Hatami): "Good to go? So I heard that there was a fire um and I just wanted you to tell me a bit more about it."

Robert: "On Monday they um, there was a group of campers over here [*points towards Mohaka Bar*] and they lit a fire on top of the wood it was like an 11 year old boy he lit it and um it got out of control the wind blew up and it started, its about 3 hundred metres long yeah"

Interviewer: "Cause its just all wood"

Robert: "Yeah all wood, yeah so around here you have to have a wood safe area fire area away from the wood so you make sure you put your campfire so there's lots of sand and stones and bring the wood over to the fire"

Interviewer: "Sure"

Robert: "This fire caused ah five fire trucks to come here and um"

Interviewer: "That's a lot of drama for a little area"

Robert: "Yeah had to be put out cos there's grass down there [*points away from beach inland towards paddocks*] and it would have caught that on fire in the paddocks and ..."

Interviewer: "Boom"

Robert: "Boom the whole lot would have gone up"

Interviewer: "And so was it a Ngati Pahauwera person that..."

Robert: "No a Napier person"

Interviewer: "No, no who um told them to stop"

Robert: "Oh yeah, your uncle, your uncle, George Toro, uh Waaka, Waaka, Toro's uncle, your father."

Interviewer: "Is it George Hawkins?"

Robert: "Yeah, he cleared the campers out from here [*points North to Bar*] right down to here [*points South*]"

Interviewer: "For safety?"

Robert: "Yeah, for safety reasons, nothing else, but we found out there's campers down there been camping about six weeks down there while their house is being rented out for rent"

Interviewer: "What?"

Robert: "Yeah homestay sort of thing"

Interviewer: "Who were they?"

Robert: "Oh they are out of towners"

Interviewer: "Oh yep, yep, and so they've been told to move"

Robert: "Yeah, they've been told to move, so there was talk about here three nights stay, no more than that"

Interviewer: "Oh fantastic, well I will put that forward too and um yeah like I think I personally I think..."

Robert: "Well my house is up on the hill, [*points North West*] just across the road"

Interviewer: "Oh yeah?"

Robert: "And we didn't want to get burnt"

Interviewer: "Yes!"

Robert: "So we came down, we got um fire blocks, we put fire blocks up, so the fire couldn't go any further um and then water tankers had to come in hose em all down yeah"

Interviewer: "What would you think about like a um signage and structures like a proper toilet and things and running water here. I mean it would be good for the people fishing but then it would also maybe encourage the campers to stay longer?"

Robert: "Oh I don't want them longer [*laughs*]"

Interviewer: "No, so [*laughs*]"

Robert: "No everybody brings a toilet"

Interviewer: "Yeah"

Robert: "Um they always campers who have been here take their mess"

Interviewer: "Yep"

Robert: "yeah all their stuff away, yeah, we used to have um toilets [*points South*] but they'd stay longer [*laughs*]"

Interviewer: "So yeah take them away?"

Robert: "But we've got these portable toilets when we have camp like this"

Interviewer: "Oh yeah, oh excellent"

Robert: "So yeah so fire's very dangerous, and we get we get our wood for our hangi, and if everybody burnt our wood up, we get our wood for our fire places, yeah, we chop it up for our winter wood but if it gets all burnt up its just ah"

Interviewer: "Well it's just irresponsible and dangerous anyway, yeah. Awesome thank you very much"

TRANSCRIPT

Video of Angela Culshaw Kaisa and Tangiwai Newton interview at Ngati Pahauwera Whanau Fishing Competition held on 12 January 2014 - extract relating to Fishing Competitions

Interviewer (Bonny Hatami): "Um, how many people registered for the um for the fishing competition so far?"

Tangiwai: "It's 154 we have so far"

Interviewer: "Yeah awesome so that's individual people but -"

Tangiwai: "Yes"

Interviewer: "- but they've brought their family as well so some of them, so there's more than 154 people down at the beach."

Tangiwai: "Yeah that's right but registered is 154"

Interviewer: "Yeah ok and um a few people it looks like camped overnight?"

Tangiwai: "Yes they did"

Interviewer: "So what do they bring with them when they come camping?"

Tangiwai: "Oh look, yeah there's a motorhome over there and they've got a a caravan"

Angela: "Caravans, tents"

Tangiwai: *[indistinct]*

Interviewer: "Some portaloos"

Angela: "Yes"

Tangiwai: "Yes. We got a we got a beautiful flush toilet a beautiful toilet behind here"

Angela: "And they bring their own recycling bins so they can recycle and the majority of the ones that camp down here are Pahauwera yeah or been coming here for years and years and years as part of the fishing club, the old Paikea fishing club."

Interviewer: "Right, awesome, so can you just talk to me a little bit more about the Paikea fishing club?"

Angela: "Paikea Fishing Club's been going for quite a few years aye, oh way back in the ..."

Interviewer: "was it the eighties? At least aye"

Angela: "Oh at least the eighties, must be seventies and that"

Interviewer: "yeah"

Tangiwai: "Yeah it's the seventies"

Angela: "To allow our Pahauwera whanau to actually um um bond together and pass on to the tamariki the history of the traditional way of fishing as well, the reti board, um mainly and um just to share their their knowledge of the the tides and the channels and um the migration of the um kahawai and snapper, they normally fish for so there's like Papa George aye and Parps and old Willie and them they got a long history of ah trends happening with our kahawai and our snapper over the years, the changes"

Interviewer: "So they know what's happening with them"

Angela: "Yeah so the Paikea fishing club's been going for many years"

Interviewer: "So it still goes, it's still going?"

Angela: "Unfortunately they went into recess but there's discussion um last week they're going to um"

Interviewer: "bring it back"

Angela: "Bring it back out of recess because we've got a lot of mokopunas aye"

Tangiwai: "Mmmm"

Angela: "Mokopunas younger generation, great-grandchildren are fishing now so we thought well we could always start the Paikea fishing club up again 'cause now we've got third fourth generation"

Interviewer: "Yep Yep"

Angela: "of tamariki that are fishing now which is good aye, for us aye?"

Tangiwai: "Yes it is"

Interviewer: "So how about um fishing competitions, so have you been involved with like many ... ?"

Angela: "Well my whanau have, and that, and and we used to have fishing competitions against Pania [*points towards Napier*] Pania, which is the Napier club and that and Gisborne [*points North*] and the Paikea, we used to have a shield, that the three clubs [*gestures North to South*] Gisborne, Wairoa here, Pahauwera and Napier used to fish for, and that used to be ah over the weekend but Isobel would be the best person to talk about that because she's been a secretary for Paikea Fishing Club. So we've had a lot of our rangatahi compete that will fish over the weekend in teams, so -."

Interviewer: "Awesome"

Angela: "- and Mohaka's a really good beach one of the best beaches for fishing competitions"

Interviewer: "Yeah, um so this particular competition apparently it just came about for raising money for the church?"

Tangiwai: "The church, that's right."

Interviewer: "and and and that was just kind of decided in November is that right?"

Tangiwai: "Mmm [*nods head*] Yes"

Interviewer: "Okay fantastic. And so that's a really good turnout plus prizes and sponsors"

Tangiwai: "oh absolutely"

Angela: "because the majority of our whanau in the Mohaka um branch in the Anglican Church, Pahauwera, are fishermen. So the best way to fundraise particularly and they're really supportive of the church and that, yeah, Fishing club and they will come from all over, like we've got whanau from Wellington they have come up to support, some from Gissy, although they don't live in Gissy any more. So they've come from a long way to come and [*indistinct end of comment has been edited out*]"



□ LEFT: The top fish caught at Mohaka at the recent fundraiser. Left, Robert Nelson from Napier and Eric Rangi with the snapper, kahawai and shark.

□ RIGHT: Raupunga surfcaster Ina Huata casts off again at Mohaka Beach.

This is the exhibit marked "V" referred to in the affidavit of Ioro Edward Waaka affirmed at NAPIER this 7th day of FEBRUARY 2014 before me Hilton R Verry Solicitor Napier A Solicitor of the High Court of New Zealand Justice of the Peace



□ RIGHT: There's nothing like a fishing competition to catch up and enjoy your own homemade shade house, clockwise left front, Ashanti Tahuri from Wairoa, Bubbles Te Hau from Raupunga, Molra Smith and Buck Wesche from Nuhaka and Tinabop Te Hau from Raupunga.



□ LEFT: Midway down the beach Wayne Kapene checks the line as others prepare to move to another spot to try their luck.

Mohaka Anglicans hook anglers for a fundraiser

THE first-ever Mohaka Anglican Church fishing competition fundraiser on Sunday was a great community success — even if the fish were a little shy of the bait.

People are hoping it will become a regular event although organiser Marjorie Rangi paled at the thought. Assistant priest and supporter Fred

McRoberts said they thought of having the competition only last November and hoped it might be held every two years.

Everyone was very grateful for the support the organisers had received, he said.

There is a service held every fourth Sunday at the Mohaka Anglican Church by the Mohaka Marae.

RESULTS:

Heaviest snapper - T. O'Sullivan 1.830kg 1, S. Drake 1.410kg 2, M. Hela 0.800gms 3
 Heaviest kahawai - D. Te Kahika 1.810kg 1, M. Te Kahika 1.410kg 2, Gordon L. 1.030kg 3
 Heaviest gurnard - G. Jane 0.620gms 1
 Heaviest non-scale - J. Kasa 6.830kg, D. Reple 4.810kg and P. Thompson 3.400kg 3.



□ Marshall Chaans Tumataroa brings in another fish for weighmaster Isobel Thompson to weigh.



□ Anglers and their families enjoyed the perfect weather at the Mohaka Anglican Church fishing competition. From left, Gelna Watson, Jaco Dougherty and Holden Jane.

FREE

We offer free, quality and professional

SOCIAL SERVICES

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- Family Start
- Strengthening Families
- Home Based Support Services
- Counselling

For all members of the community strengthening whanau from the foundations up

Abunghuru Executive

Phone 838 3259

Key 04

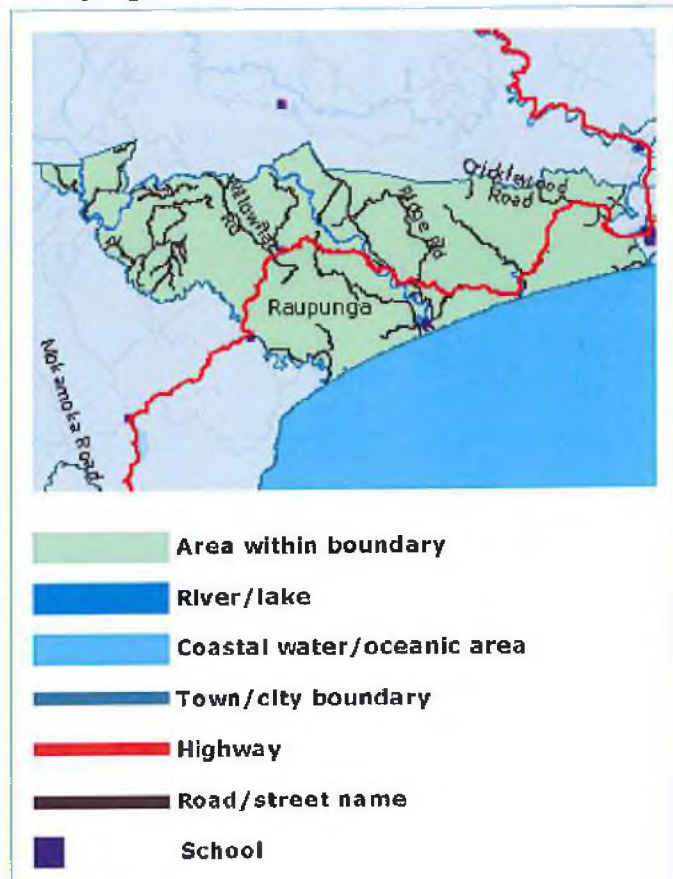
"W"

You are here: [Home](#) > [Census](#) > [2006 Census Data](#) > [Boundary Maps](#) > [Boundary Map of Raupunga](#)

Boundary Map of Raupunga

This map shows the 2006 Census collection for the Raupunga.

Raupunga



This is the exhibit marked "W" referred to in the affidavit of Toro Edward Waaka affirmed at NAPIER this 7th day of FEBRUARY 2014 before me

Signed *Hilton R Verry*

A Solicitor of the High Court of New Zealand/
Justice of the Peace

Hilton R Verry
Solicitor
Napier

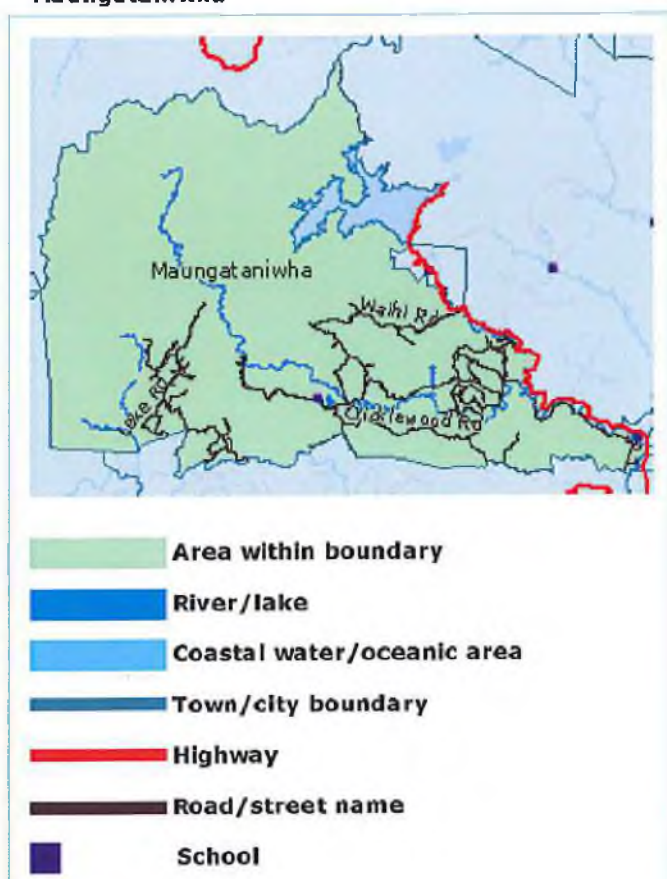
Note: Neighbouring areas are grey to show they are not the subject of this map. Rivers and lakes not included in this area are also grey. This map is not to scale.

You are here: [Home](#) > [Census](#) > [2006 Census Data](#) > [Boundary Maps](#) > [Boundary Map of Maungataniwha](#)

Boundary Map of Maungataniwha

This map shows the 2006 Census collection for the Maungataniwha.

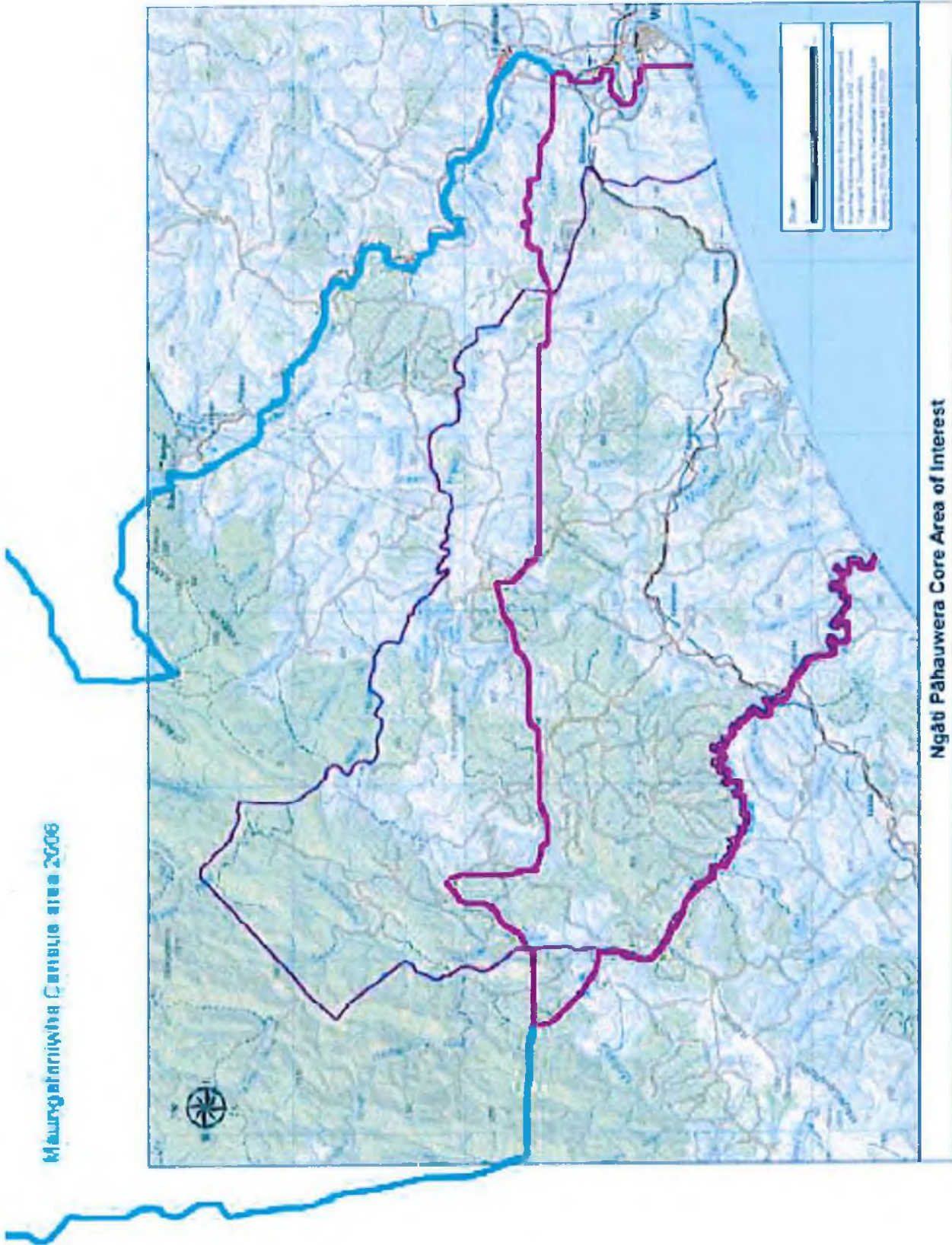
Maungataniwha



Note: Neighbouring areas are grey to show they are not the subject of this map. Rivers and lakes not included in this area are also grey. This map is not to scale.

NGĀTI PĀHAUWERA DEED OF SETTLEMENT: DOCUMENTS SCHEDULE

6 CORE AREA OF INTEREST



Māungataniwha Census area 2006

Raupunga Census area 2006

Ngāti Pāhauwera Core Area of Interest

"X"

You are here: [Home](#) > [Census](#) > [2006 Census Data](#) > [QuickStats](#) > [About a Place](#) > **QuickStats About Raupunga**

QuickStats About Raupunga

Population/ Dwellings

Number of people counted

Total population

- 642 people usually live in Raupunga. This is a decrease of 99 people, or 13.4 percent, since the 2001 Census.
- Raupunga has 0.4 percent of Hawke's Bay Region's population.

	Raupunga	Hawke's Bay Region
Male	327	71,763
Female	312	76,020
Total	642	147,783

Symbol:

C confidential

Number of occupied dwellings counted

- There are 246 occupied dwellings in Raupunga.
- For Hawke's Bay Region as a whole, there are 55,527 occupied dwellings.

Note: This data has been randomly rounded to protect confidentiality. Individual figures may not add up to totals, and values for the same data may vary in different text, tables and graphs. For areas with small populations, the data may not look as expected because of this rounding.

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Signed H. Verry Hilton R Verry
Solicitor
Napier

A Solicitor of the High Court of New Zealand/
~~Justice of the Peace~~

You are here: [Home](#) > [Census](#) > [2006 Census Data](#) > [QuickStats](#) > [About a Place](#) > **QuickStats About Raupunga**

QuickStats About Raupunga

Ethnic groups, birthplace and languages spoken

Total population

Ethnic groups

- The most common ethnic group in Raupunga is Māori, compared with European for Hawke's Bay Region as a whole.

	Percent
European	47.5
Māori	55.4
Pacific peoples	3.9
Asian	0.5
Middle Eastern/Latin American/African	0.0
Other ethnicity	8.3

Symbol:

C confidential

	Percent
European	68.5
Māori	23.5
Pacific peoples	3.7
Asian	2.5
Middle Eastern/Latin American/African	0.4
Other ethnicity	12.7

Symbol:

C confidential

Birthplace

- 3.0 percent of people in Raupunga were born overseas, compared with 13.0

percent for Hawke's Bay Region as a whole.

- For people born overseas who are now living in Raupunga, the most common birthplace was the UK and Ireland, compared with the UK and Ireland for all of Hawke's Bay Region.

Languages spoken

- English is the most commonly spoken language in Raupunga.
- 15.7 percent of people in Raupunga speak Māori, compared with 6.9 percent of people for all of Hawke's Bay Region.
- New Zealand Sign Language is used by 0.5 percent of people in Raupunga, compared with 0.7 percent of people for all of Hawke's Bay Region.
- 82.4 percent of people in Raupunga speak only one language, compared with 86.0 percent of people for all of Hawke's Bay Region.

Note: This data has been randomly rounded to protect confidentiality. Individual figures may not add up to totals, and values for the same data may vary in different text, tables and graphs. For areas with small populations, the data may not look as expected because of this rounding.

You are here: [Home](#) > [Census](#) > [2006 Census Data](#) > [QuickStats](#) > [About a Place](#) > **QuickStats About Maungataniwha**

QuickStats About Maungataniwha

Population/ Dwellings

Number of people counted

Total population

- 351 people usually live in Maungataniwha. This is an increase of 30 people, or 9.3 percent, since the 2001 Census.
- Maungataniwha has 0.2 percent of Hawke's Bay Region's population.

Population of Maungataniwha and Hawke's Bay Region, 2006 Census		
	Maungataniwha	Hawke's Bay Region
Male	186	71,763
Female	165	76,017
Total	351	147,783

Symbol:

C confidential

Number of occupied dwellings counted

- There are 132 occupied dwellings in Maungataniwha.
- For Hawke's Bay Region as a whole, there are 55,530 occupied dwellings.

Note: This data has been randomly rounded to protect confidentiality. Individual figures may not add up to totals, and values for the same data may vary in different text, tables and graphs. For areas with small populations, the data may not look as expected because of this rounding.

You are here: [Home](#) > [Census](#) > [2006 Census Data](#) > [QuickStats](#) > [About a Place](#) > **QuickStats About Maungataniwha**

QuickStats About Maungataniwha

Ethnic groups, birthplace and languages spoken

Total population

Ethnic groups

- The most common ethnic group in Maungataniwha is European, compared with European for Hawke's Bay Region as a whole.

	Percent
European	68.2
Māori	41.8
Pacific peoples	2.7
Asian	0.0
Middle Eastern/Latin American/African	0.0
Other ethnicity	5.5

Symbol:
C confidential

	Percent
European	68.5
Māori	23.5
Pacific peoples	3.7
Asian	2.5
Middle Eastern/Latin American/African	0.4
Other ethnicity	12.7

Symbol:
C confidential

Birthplace

- 3.7 percent of people in Maungataniwha were born overseas, compared with Page 411 of 778

13.0 percent for Hawke's Bay Region as a whole.

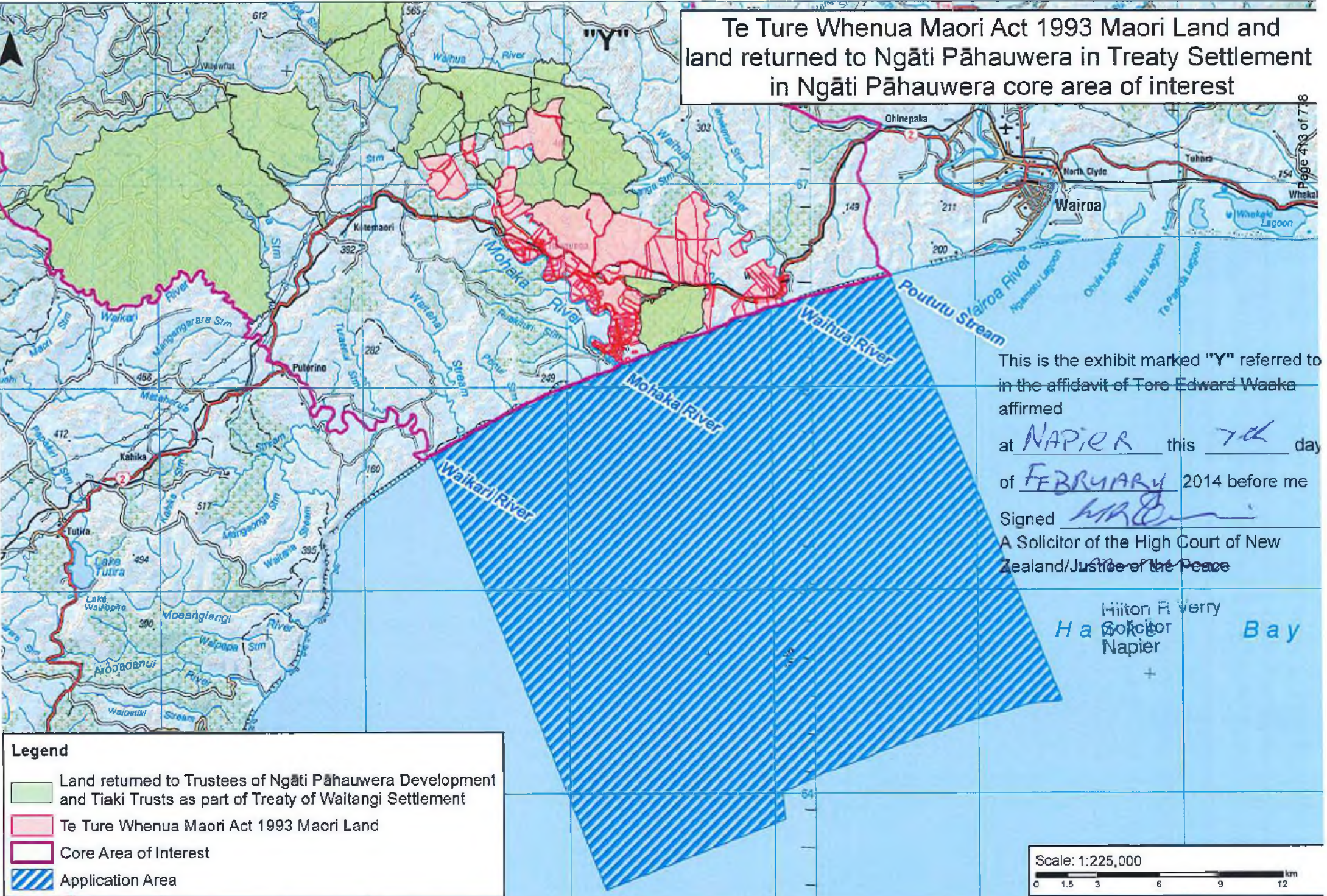
- For people born overseas who are now living in Maungataniwha, the most common birthplace was the UK and Ireland, compared with the UK and Ireland for all of Hawke's Bay Region.

Languages spoken

- English is the most commonly spoken language in Maungataniwha.
- 12.8 percent of people in Maungataniwha speak Māori, compared with 6.9 percent of people for all of Hawke's Bay Region.
- No people use New Zealand Sign Language in Maungataniwha, compared with 0.7 percent of people for all of Hawke's Bay Region.
- 84.4 percent of people in Maungataniwha speak only one language, compared with 86.0 percent of people for all of Hawke's Bay Region.

Note: This data has been randomly rounded to protect confidentiality. Individual figures may not add up to totals, and values for the same data may vary in different text, tables and graphs. For areas with small populations, the data may not look as expected because of this rounding.

Te Ture Whenua Maori Act 1993 Maori Land and land returned to Ngāti Pāhauwera in Treaty Settlement in Ngāti Pāhauwera core area of interest

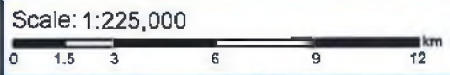


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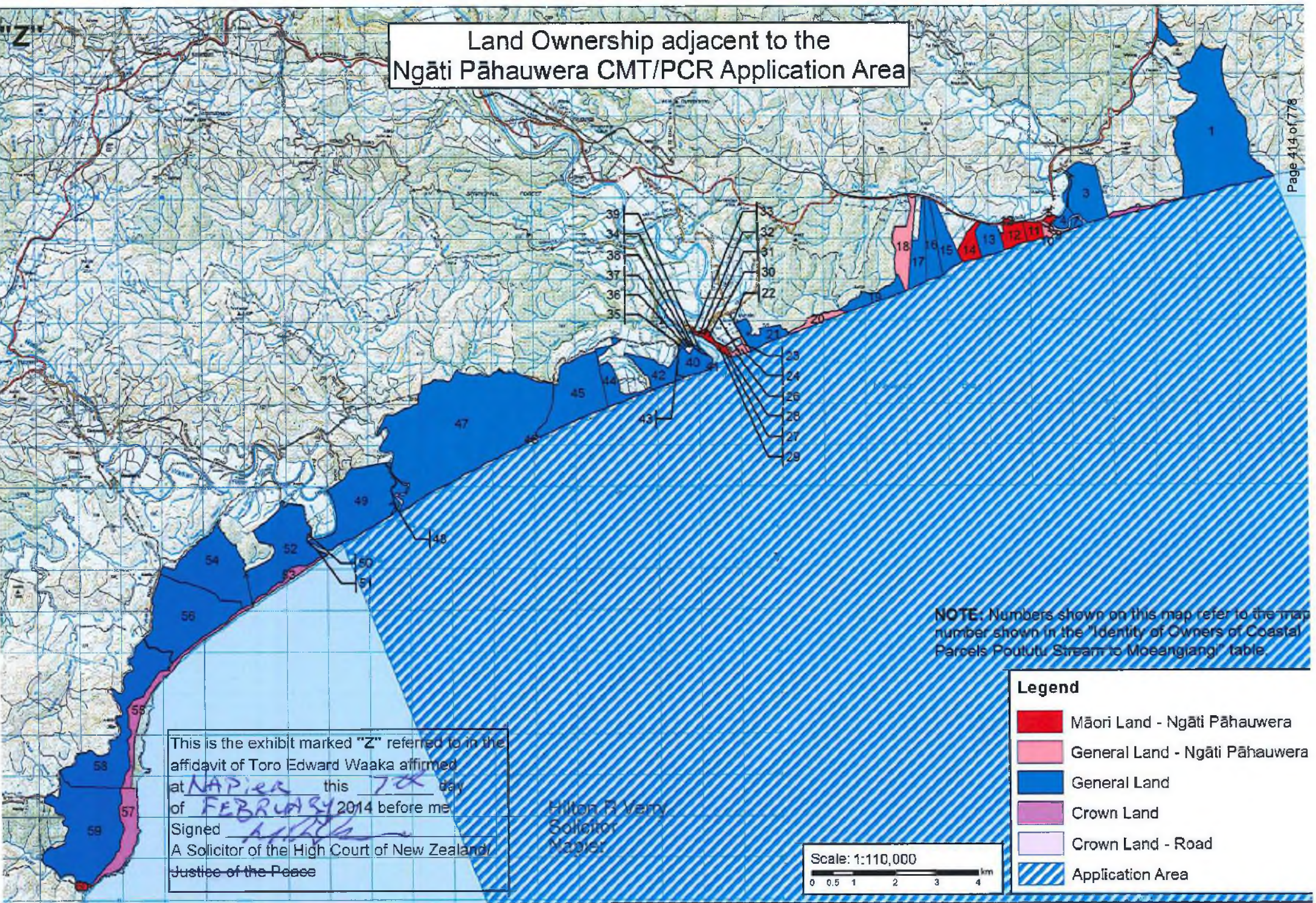
Hilton R. Verry
Solicitor
Napier

Legend

- Land returned to Trustees of Ngāti Pāhauwera Development and Tiaki Trusts as part of Treaty of Waitangi Settlement
- Te Ture Whenua Maori Act 1993 Maori Land
- Core Area of Interest
- Application Area



Land Ownership adjacent to the
Ngāti Pāhauwera CMT/PCR Application Area



NOTE: Numbers shown on this map refer to the map number shown in the "Identity of Owners of Coastal Parcels Poututu Stream to Moeangiang" table.

Legend

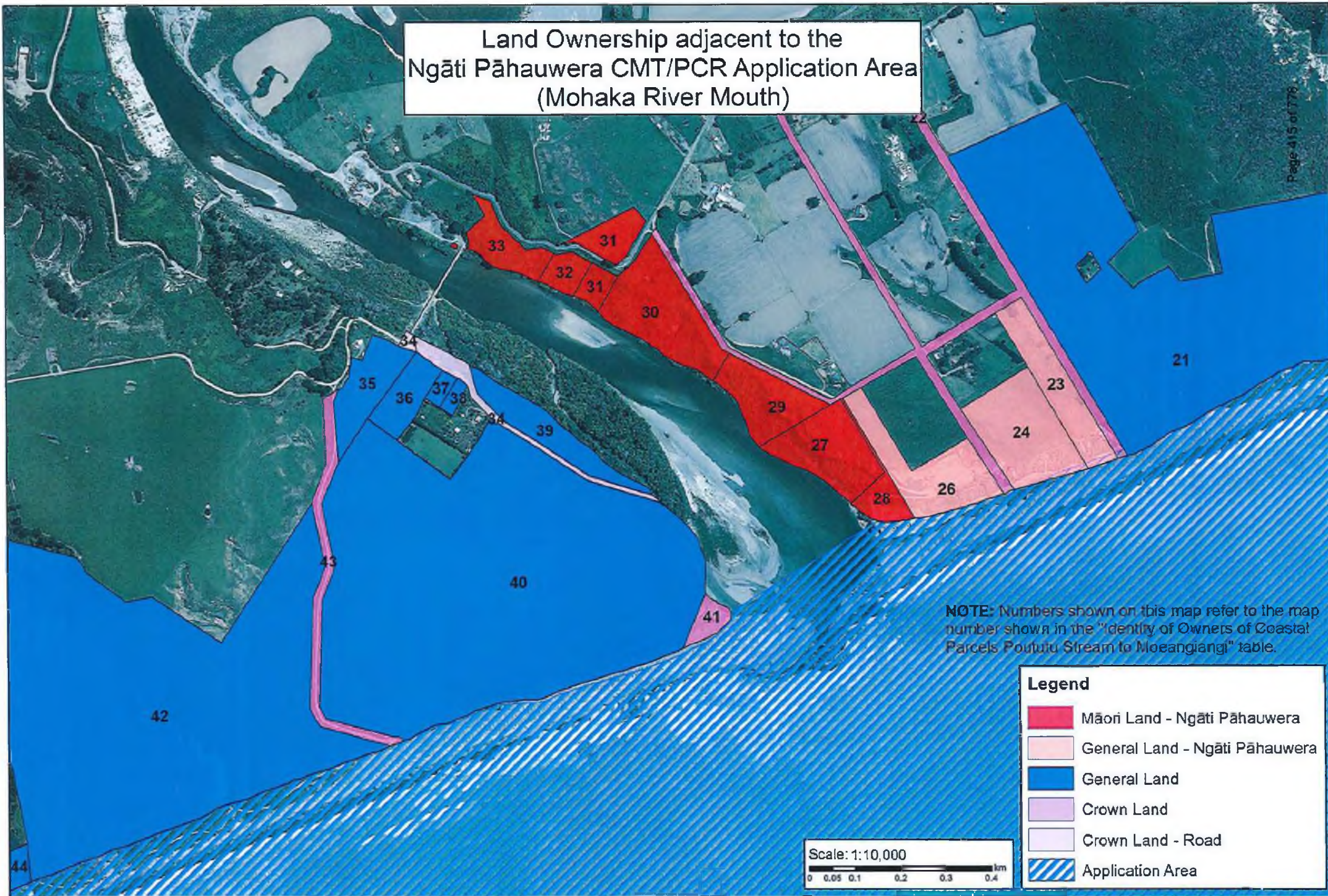
- Māori Land - Ngāti Pāhauwera
- General Land - Ngāti Pāhauwera
- General Land
- Crown Land
- Crown Land - Road
- Application Area

This is the exhibit marked "Z" referred to in the affidavit of Toro Edward Waaka affirmed at NAPIER this 7th day of FEBRUARY 2014 before me
Signed [Signature]
A Solicitor of the High Court of New Zealand
Justice of the Peace

Hilton A Verry
Solicitor
Napier



Land Ownership adjacent to the
Ngāti Pāhauwera CMT/PCR Application Area
(Mohaka River Mouth)



"AA"

Tihei uriuri, Tihei nako nako, Tihei mauri ora

Tena ra tatou katoa.

He mihi mahana ki a koutou i kawe mai nga tumanako mo tatou iwi.

Haere mai ki te tautoko te mahi, te mahi ki te hapai ake nga uri o Ngati Pahauwera.

He mihi maioha, He tangi mo ratou ma kua wehe atu ki te po.

Hoki atu ra ki te kainga tuturu. Haere, haere, haere atu ra.

THE NGATI PAHAUWERA DEVELOPMENT AND TLAKI TRUSTEES REPORT

The Ngati Pahauwera Treaty Settlement

We are almost towards the end of 2011 and during the treaty process the Trustees have achieved several milestones which have been a privilege and humbling experience. This is a time for Ngati Pahauwera to leave all the rhetoric behind and reconnect spiritually, mentally and physically to their whenua taonga tuku iho and move forward into the future as a confederation of hapu.

The Crown and Ngati Pahauwera signed the terms of negotiations in Wellington on 8 May 2008. On 30 September 2008 the Crown and Ngati Pahauwera signed an Agreement in Principle. On 5 November 2010 Ngati Pahauwera presented a Draft Deed of Settlement detailing the historical treaty settlements aspect of this agreement to the hapu/iwi throughout Aotearoa. The ratification process is where Ngati Pahauwera people decided whether to accept the settlement or not. The voting started in November 2010 and closed on 4 December 2010. The overwhelming support received for the Draft Deed of Settlement to be ratified, was then signed as the Deed of Settlement on 17 December 2010 at the Waipapa-A-Iwi Mohaka Marae. A special mention of our Tuhoe whanaunga who gifted a taonga of significance to Ngati Pahauwera.

TAKU TAI MOANA

From 1 July 2011 the management of New Zealand Fisheries will be guided by fisheries plans. In Terms of customary fishing, there has been extensive investigating using various methodologies for monitoring freshwater e.g. cultural health index implementation of hapu plan (IFP) and the forum fisheries plan. These are key tools for ensuring Ngati Pahauwera has effective input and participation at all levels of the fisheries management decision making. Ngati Pahauwera has been consistent in that we will manage our own fish within our core area.

PAN PAC

The Trustees are reviewing our relationship with Pan Pac. The review encompasses the Crown Forest Licence document and other relevant information. The Trustees are entering into high level discussions with Pan Pac to discuss Forestry contracts which will create employment opportunities.

This is the exhibit marked "AA" referred to in the affidavit of Toro Edward Waaka			
affirmed at	<u>NAPIER</u>	this <u>7th</u> day of <u>FEBRUARY</u>	2014
before me	Signature <u>[Signature]</u>		
A Solicitor of the High Court of New Zealand / Justice of the Peace			
			Page 426 of 476

Hilton R Verry
Solicitor
Napier

PIG HUNTING CLUB

The Mohaka Pig Hunting Club has been established to provide traditional use right of access for Ngati Pahauwera people to do recreational hunting, fishing, trapping and other recreational purposes in the Mohaka Forest. The Trustees and Pan Pac are responsible for ensuring the policies are followed. The Mohaka Pig Hunting Club, during the season, will administer the rules for pig hunting within the Mohaka Forest.

FARMS

The Trustees were able to purchase the 356 hectare Chimney Creek Farm for \$520,000.00 which was valued at \$830,000.00. The property has been leased out for three years with a 3 year right of renewal. The Trustees will continue to develop a strategic plan to maximise the assets and minimise the liability of Rawhiti Station and Chimney Creek.

HBRC

Ngati Pahauwera has initiated a Co-Governance Regime within the Hawkes Bay Regional Council that will have a big impact on Maori communities. This is a joint regional planning committee which would operate under the Resource management Act. Their role is to:

- Review Operative regional plans
- Prepare proposed regional plans and policy statements or changes to plans
- Recommend to Council draft plans and plan changes
- Appoint a hearing committee or panel to hear submission on proposed plans

GRAVEL MONITOR

The Trustees advertised and appointed Tuki King as the successful applicant for the Gravel Monitor's position. Five applications were received. A prudent process was followed with both a representative from the Hawkes Bay Regional Council (HBRC) and two Trustees. Tuki will work closely with the Trustee and HBRC to ensure that the monitoring of associated gravel take, extractions and contractor compliance's are adhered to. No person may extract hangi stones from the bed of the Mohaka and Te Hoe Rivers within the core area of interest unless the Trustees give their consent.

SELECT COMMITTEE SUBMISSIONS

On 17 May 2011 the Trustees and whanau attended the First Reading hearing at Parliament Building. The Maori Affairs Select Committee then heard submissions both for and against the Bill at the Waipapa-A-Iwi Mohaka Marae on 30 June 2011. Twenty six submissions were submitted and three groups presented their submissions orally to the Select Committee. On 6 July 2011 two Trustees attended a second hearing at Parliament Buildings.

REGISTERED MEMBERS

The current membership on the beneficiary roll is approximately 6359. The Trustees encourage all Ngati Pahauwera whanau to register if they haven't already done so, and to keep the office advised of any changes in circumstances please.

CROWN APOLOGY

Ngati Pahauwera acknowledges that the Crown's apology represents its commitment to build a positive relationship with Ngati Pahauwera and to honour its obligations under Te Tiriti o Waitangi/Treaty of Waitangi for the good of this and future generations. Accordingly, Ngati Pahauwera accepts the apology offered by the Crown and also looks forward to building a positive relationship with the Crown.

CONCLUSION

The Trustees wish to acknowledge the administration staff Marie Moscs and Michelle Thompson, our Legal Counsel Grant Powell and Roimata Smail, Peter Gillies Accountant of Gardiner Knobloch Ltd and Auditors Oldershaw & Co. In closing, a special thank you to those of you who have been able to attend and to all other beneficiaries of Ngati Pahauwera whanau ~**Mauri Ora**~

NGATI PAHAUWERA DEVELOPMENT & TIAKI TRUSTS

ANNUAL PLAN APRIL 2012 - MARCH 2013

VISION:

Te Oranganui o Ngati Pahauwera

A Supportive, Healthy, Vibrant, Prosperous and United Ngati Pahauwera.

MISSION:

To protect and enhance the resources of Ngati Pahauwera for the welfare of the people and to maintain the treaty claim settlement in a sustainable manner for future generations.

OBJECTIVES:

- To finalise the Ngati Pahauwera Settlement;
- To appoint a CEO or Manager to the Ngati Pahauwera Development Trust;
- To develop a strong infrastructure;
- To establish Ngati Pahauwera Commercial Development Limited (NPCDL) and Ngati Pahauwera Social Development Limited (NPSDL);
- Undertake a strategic overview of settlement claim assets and set priority development targets, in relation to farming, forestry, fisheries, communications, horticulture, business.
- To undertake a stock take of social needs and business operations within the core area of Ngati Pahauwera.

GUIDING PRINCIPLES:

Kotahi: Mohaka Harara Taupunga Opunga

Tuarua: Pakato i te ata, pakato i te ahiahi maure mahi, mauri ora,

United in our diversity.

Tuatoru: Hohonu kaki papaku auaua. Na Te Kahu O Te Rangi

Industrious people proper.

Tuawha: Ko au te awa ko te awa ko au.

Who I am comes from my river.

Tuarima: Mohaka tomairangi hei whakamakuku, Mohaka te waiora

The Mohaka River quenches the thirst and heals.

Tuaono: Ko taku rekereke ko taku turangawaewae

Where O dig in my heels is where I live

Tuawhitu: Kia u ki te pa harakeke

Cherish your whanau, hapu and iwi.

NGATI PAHAUWERA DEVELOPMENT TRUST STRATEGIC PLAN 2011-2013

ECONOMIC ADVANCEMENT

- Utilisation of lands for development
- Investment into Pahauwera Business development
- Strategic business relationships
- Increased employment opportunities with the Ngati Pahauwera region
- To encourage a spirit of entrepreneurialism

SUSTAINABLE ENVIRONMENT

- Stabilisation of Ngati Pahauwera water reserves
- Reduction of waste from land utilisation
- Sustainable use of land utilisation by-products
- Reduction of leeching and/or run off into Ngati Pahauwera waterways
- Reduction of carbon omitting activities through mechanism such as EFT offsetting

SOCIAL WELL-BEING

- Access to and provision of services for basic needs
- Access to and delivery of educational opportunities
- Support for kaumatua (elderly)
- Increased employment opportunities within the Ngati Pahauwera region

STABLE GOVERNANCE

- Stabilise and flatten the structure of Ngati Pahauwera
- Provision of essential services
- Stewardship of cultural resources
- Accountability processes
- Hapu participation and empowerment

SUSTAINABLE CULTURE

- Strengthen the reo of Ngati Pahauwera
- Ensure on-going learning for whanau in whakapapa etc of Ngati Pahauwera
- Support for Kaumatua
- Protection of waahi tapu (sites of significance)
- Protection of customary fishing, hunting and gathering areas (not discussed)

CROSS CUTTING ISSUES

1. Capacity and capability of organisation
2. Regional and National Engagement
3. Unity of Effort
4. Transformational (Horizon) and Transactional (Bottom Line) Leadership

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- Protection of customary fishing,

STABLE GOVERNANCE

- Stabilise & flatten the structure of Ngati Pahauwera
- Provision of essential services
- Stewardship of cultural resources
- Accountability processes
- Hapu participation & empowerment

This is the exhibit marked "BB" referred to in the affidavit of Tim Edward Waini affirmed at NAPIER this 7th day of FEBRUARY 2004 before me Signature [Signature]
A Solicitor of the High Court of New Zealand / Justice of the Peace

Hilton R Verry
Solicitor
Napier

"CC"

**MINUTES OF THE ANNUAL GENERAL MEETING
OF THE NGĀTI PĀHAUWERA DEVELOPMENT & TIAKI TRUSTS
HELD AT WAIPAPA- A IWI MOHAKA MARAE
ON 2 SEPTEMBER 2012 AT 10:30AM.**

- PRESENT:** See Attached
- IN ATTENDANCE:** Peter Gillies (Accountant Gardiner Knobloch Limited)
and Marc Nel (Auditor Oldershaw & Co).
- APOLOGIES:** See Attached.
- KARAKIA:** Duane Culshaw
- MIHIMIHI:** Toro Waaka (Chairperson)
- TRUSTEES:** New Trustee Lu McDonell was welcomed to the Board and Rev Sissel Henderson was farewelled. Thanks and acknowledgement was given to by Sissel for her contribution to the Board and the people of Ngāti Pāhauwera. Thanks also went to her husband Neville for his support of the kaupapa.
- MINUTES:** The minutes of the previous annual general meeting, held on 30 October 2010 at Te Maara A Ngata Marae, Kahungunu, Putere Rd and the minutes of 4 September 2011 held a Mohaka Marae were ratified.
- IT WAS MOVED THAT the minutes of the annual general meeting 30 October 2010 and 4 September 2011 be ratified.

Derek Huata/Awhina Waaka

**MATTERS ARISING
FROM THE MINUTES:**

1. *Rawhiti Station*

Shaun Haraki voiced his disappointment at the tendering process which was set down for three years but was instead negotiated for six years. He felt robbed of the opportunity for both himself and for Ngāti Pāhauwera.

The reason the Fellow's tender was accepted was it was by far the more commercially attractive offer received. The Trustees obligation is to get the best return for all of Ngāti Pāhauwera beneficiaries rather than give preference to the interests of some local farmers.

2. *Chimney Creek*

Leased for \$25,000 per annum for three years with a right of renewal. It is run down and needs to be built up. 60 acres gorse has been sprayed. Will be looking

at a plan in relation to land use.

3. *Nga Kaitiaki*

Acknowledgment was given to Harry Tuapawa for the good work he did as the Tangata Tiaki for Ngāti Pāhauwera.

Kahungunu Marae put up two additional people however these were not accepted by the Ministry of Fisheries. NPDT will be following up with the Ministry. Authority should not be given to too many people otherwise it could be over-fished.

The Wairoa Hard is the nursery for fisheries in this region. We therefore need to create our own bylaws (Rahui) for Ngāti Pāhauwera. Cross Claimants (Maunga Haruru Ki Tangitu Trust) want to bring the Wairoa Hard into their settlement.

Kuki Green, Maadi Te Aho and Harry Tuapawa were the Tangata Tiaki for the area.

4. *Carbon Credits*

Ngāti Pāhauwera own carbon credits. Concerns raised about the land being unusable after the 3rd harvest of pine trees. Research to be done in relation to this issue.

TRUST'S ANNUAL REPORT:

The Ngati Pahauwera Development & Tiaki Trusts (NPDTT) annual report for the year ended 31 March 2011 was tabled.

MATTERS ARISING FROM THE ANNUAL REPORT:

1. Investments

\$25m in cash has been invested across four banks through the Bank of NZ. Currently these include: BNZ, Rabo Bank, ANZ and Westpac. Reports have been commissioned in relation to the land.

2. Relationship with PANPAC

Pig Hunting Club are happy with the protocols that are in place with PanPac. Transparency is required particularly in relation to permits. Providing meat for tangi is a priority.

3. Takutai Moana

Currently negotiating the Takutai Moana with the Crown who have funded the negotiations up to 85% or \$340,000. NP were the first in the country to have a hearing in the Maori Land Court. This is close to the water claim.

4. Commercial Redress

Valuations have been completed. Reports have been commissioned in relation to land use and possible commercial ventures.

IT WAS MOVED THAT the NPDTT's annual report for the year ended 31 March 2012 be accepted.

Guy Te Kahika/Hape Huata

AUDITED FINANCIAL ACCOUNTS

The audited financial statements for the year ended 31 March 2012 as presented by accountant Peter Gillies of Gardiner Knobloch Limited.

1. Settlement of Claim

On 8 May 2012 the settlement money was banked into the NPDT bank account.

2. Section 30

Suggested an advance of \$5,736 is owed to Ngati Pahauwera Section 30 Representatives Co-operative Society Ltd by the Ngati Pahauwera Development Trust (at 31 March 2010), \$2,3812 was owed by Ngati Pahauwera Section 30 Representatives Co-operative Society Ltd).

\$10,944 is owed to Kuki Green and \$4,544 owed to Toro Waaka for expenses from prior years.

3. Auditors

Auditor Marc Nel of Oldershaw & Co commented that:

- (a) This is an unqualified report which meant that proper records were being kept in accordance with legislation.
- (b) An advance of \$6,869 is owed to Section 30 for work undertaken by members of Section 30. Suggested that the money be paid into the Section 30 account and PAYE deducted before payment made to the members.

MATTERS ARISING FROM THE AUDITED ACCOUNTS:

1. Te Huki Marae

Financial details of the Te Huki account administered by the NPDTT should be provided to the Trustees.

Seven hui a iwi were held in relation to the building of Te Huki Marae.

2. Trustees Payment for Research

In some cases it is appropriate for Trustees to

undertake work on behalf of Ngāti Pāhauwera. In many instances the information required by consultants come from the Trustees.

Shaun Haraki requested all payments to Trustees in regards to work associated with Ngāti Pāhauwera work be declared.

3. Section 30 repayments

An advance of \$6,869 was owed to Ngāti Pāhauwera Section 30 Representative Co-operative Society Ltd (2011 - \$5,736). Kuki Green and Toro Waaka were directors and trustees of the Ngāti Pāhauwera Development Trust. The advance was on demand, interest free and unsecured. The Trust will be assuming the net assets/liabilities of Ngāti Pāhauwera Section 30 Representatives Co-operative Society Ltd upon settlement of the treaty claim.

4. Investments

The settlement funds are invested for different periods of time and attract different amounts of interest. The idea is to attract the highest amount of interest possible. Spreading the investment over several banks mitigates risk. Investment policies are currently being worked through.

4. The Incorporated Society

The question of the role of the Incorporated Society was raised. It was previously suggested that the Incorporated Society become the Social Arm of the NPDTT. It was suggested that they carry on doing what they are currently doing. Once the NPDTT has developed its policies it will have a clearer view about this.

IT WAS MOVED THAT the audited financial statements for the years ended 31 March 2012 be accepted.

Heidi Harris/Querida Whatuira Strickland (Gemmell)

AUDITORS:

IT WAS MOVED THAT Oldershaw & Co be the auditors for 2012 – 2013 year.

Isobel Thompson /Awhina Waaka

BUDGET & ANNUAL PLAN:

The annual plan was presented for the 2012- 2013 year.

MATTERS ARISING FROM THE BUDGET & ANNUAL PLAN:

1. The 2012 – 2013 Annual Plan was very broad and the Trust should consider forming sub committees.
2. The budget did not include Te Huki Maraē. To be

dealt with in General Business.

IT WAS MOVED THAT the Annual Plan and Budget be accepted for the 2012-2013 year.

Ruku Wainohu/ John Keefe

**Against: Shaun Haraki (Plan and Budget)
Bessie Gemmell (Plan and Budget)
Gaye Hawkins (Plan)**

MINUTES OF SPECIAL RESOLUTION:

Concern was raised that the discussion in relation to the special resolution had not been recorded. Amendment to the minutes that that name Hauraki was misspelt and should read Haraki.

IT WAS MOVED THAT the minutes of the special meeting held on 4 September 2011 be accepted.

Derek Huata/Guy Te Kahika

GENERAL BUSINESS:

1. *Te Huki Marae*

An offer of \$350,000 was made to the Marae Trustees in satisfaction of the builders' debt and a further \$50,000 towards the costs of completing the building. The money would be released once the building was completed. This was not acceptable to the Marae Trustees or the builder and had not progressed.

Some members voiced that the NPDTT should pay for the Te Huki deficit, interest and a third of the funds required to complete the building. Some said it was their money and that the bill should be paid. It also was suggested that the people at the AGM make the decision to pay the bill. However it was explained that there were many more members of NP than those present at the meeting and that this decision lay firmly with the NPDTT.

The current Trustee's thinking is that disbursements to beneficiaries could only come out of a percentage of interest so the principle sum will be available to generate funds for future generations.

Meeting was closed at 2.30pm.

Next AGM 8 September 2013 at 10.00am.

KARAKIA:

Toro Waaka

Signed as a true and correct record

.....

Date:.....

"DD"

Ngāti Pāhauwera Development Trust

**Trustees Report for the
2013 Annual General Meeting**

This is the exhibit marked "DD" referred to
in the affidavit of Toro Edward Waaka
affirmed
at NAPIER this 7th day
of FEBRUARY 2014 before me
Signed [Signature]
A Solicitor of the High Court of New
Zealand/~~Justice of the Peace~~

Introduction

The purpose of a report to the Membership of an organization at an Annual General is to account for the activities by the trustees that have been carried out in the last financial year. We would like to also take this opportunity not only to report to the AGM on activities against the financial statements up to 31 March 2013, but also include a current update from 31 March to now (5 months), and then briefly comment on our future aspirations and commitments leading us into the Annual Plan following this report.

1. Report to 31 March 2013

From the transfer of settlement redress in late 2012 there has been significant work in the new post settlement environment. The reality of the transfer and bedding in assets into our structures presented many unforeseen circumstances and challenges. Some of these challenges are still continuing today including agreements with the Ministry for the Environment for the River Restoration Project, statutory acknowledgements with Regional Authorities such as the Hawkes Bay Regional Council and the Joint Policy Committee Bill.

Other work that the Trust was engaged in this period (and continuing) was with the Takutai Moana coastal marine claim.

As previously noted by the Trustees in last year's AGM Report, Rawhiti Station was not in the best of condition on transfer and therefore investment has since been expended which represents a cost against the 2013 Annual Accounts. This is a new cost centre as Rawhiti Station was not on our books the previous year. More investment is forecasted to be spent on Rawhiti Station to bring it up the scratch. We are still in the process of cost recovery and compensation negotiations with OTS to remedy defaults.

Our subsidiary entities moved proactively into action in this period but again the "new change environment" required us to reassess our capacities and capabilities to implement our plans fully. The trustees were required to undertake a lot of governance work in bedding in settlement redress in spite of having a Transition Manager and staff fully engaged. Much of the trustee work included day to day management tasks which attributed to higher Trustee expenses for the year ending.

Up to our balance date of 31 March 2013, the financial accounts compared with the previous year's accounts shows limited business trading activity although governance work was very busy. Notably the big difference from the previous year's accounts is in the new revenue streams and accumulated financial position of Ngāti Pāhauwera.

2. Report to 1 September 2013

From last year's Annual Plan many of the activities identified have been started if not completed. There is some difficulty reporting activities that started in the financial year but overlap into this current

Hilton R Verry
Solicitor
Napier

financial year. This is just one adjustment or alignment with our constitutional documents and planning that the Trustees will be addressing.

Many of the activities on last year's Annual Plan have been completed to date. A new General Manager has been appointed and he has moved quickly putting administrative infrastructures in place and engaged new staff to start managing the day to day operations of the Development Trust. New offices have been established to provide operational function and efficiencies. A review of governance and management structures has been completed by the General Manager and the Trustees are in the process of moving forward with infrastructure building that includes engaging additional staff and systems to provide the support needed for our the subsidiary entities, Manaaki and Tiaki Trusts and the Commercial Development Company.

At this point we would like to acknowledge and thank Bryan King, our Transition Manager, for the hard work and effort that he put into the Trust, through some trying and at times very difficult circumstances leading up to Settlement and immediately beyond. We wish him all the best in the future.

Other activities that the Trustees have started or completed since the last AGM include;

- (a) Building our relationship with Pan Pac that included a new access agreement, firewood supplies, and confirmation of the Pig Hunters Club Protocols and employment opportunity agreements
- (b) Careful management of cash redress through fixed term deposits across a number of banks
- (c) Advancing our Takutai Moana claim
- (d) Continuing cross claims assistance
- (e) Securing education contracts with the Ministry of Education and Te Puni Kokiri
- (f) Holding Information Sharing Hui
- (g) Holding Tikanga Wananga
- (h) Developing relationships with Crown Entities and Local Body Authorities

As well as these activities there are others, small as they may be, that do not appear on the last Annual Plan that are of benefit to the community such as firewood and metal for urupa, kaumatua and Marae. There are other activities from last year's Annual Plan that are still work in progress that we will get to over the next six months

There is still a lot of time and resources spent completing or bedding in either Treaty Settlements, even this far after settlement date, or involved in negotiations and discussions that are still required consolidating our own structures and processes. As a result of all of this a lot of Trustee time is spent with meetings, hui, forums, negotiations, and information seminars. These activities largely go unnoticed as they do not appear on the Annual Plan to be noted and ticked off.

3. Future Plans

The Annual Plan presented for approval at this year's AGM represents a list of activities that the Trustees consider their responsibility in the delivery of Trustee obligations and expectations to Members. Having said this, the Annual Plan is designed to allow flexibility to alter our position as new information and circumstances present themselves but most importantly the Trustees wish to encourage and provide

opportunities for Members to engage, contribute, and play an active part in achieving these objectives together.

Whilst genuinely trying to be inclusive as possible, the Trustees have lawful and moral responsibilities and obligations that need to be exercised in a diligent and prudent manner. It is very tempting to rush into things or be pressured in to acting but the Trustees would not be doing their job without considering all the risks that may expose themselves, the Trust, ultimately Ngāti Pāhauwera to costly mistakes.

In closing, we wish to thank our staff for their commitment and work over the past year and we present this 2013-2014 Annual Plan that is hopefully accepted and seen as responsible “Steady as We Go” stewardship for Ngāti Pāhauwera.

Ngati Pahauwera

"EE"

Te Iwi O Mohaka



- [About Ngati Pahauwera](#)
- [ACKNOWLEDGEMENTS TO WHANAU](#)
- [ANNUAL GENERAL MEETINGS](#)
- [Annual Plan](#)
- [Archived Hui-A-Iwi Information](#)
- [Archived Meridian Mohaka Reports](#)
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- [ARCHIVES – Manaaki Trust](#)
- [Beneficiary Roll](#)
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- [COGNATE BILLS: FIRST READINGS](#)
- [EDUCATION](#)
- [EMPLOYMENT OPPORTUNITIES](#)
- [FIGS](#)
- [Health – New Indicator for Stroke](#)
- [Hydro Investigation Project – Meridian Energy](#)
- [Information Sharing Hui](#)
- [Iwi Feedback](#)
- [Ngati Pahauwera Achievements](#)
- [Ngati Pahauwera Deed of Settlement Documents](#)
- [Ngati Pahauwera Deed of Settlement Signing 17 December 2010](#)
- [Ngati Pahauwera Development & Tiaki Trusts Annual General Meeting](#)
- [Ngati Pahauwera Trustee Policies](#)
- [Pahauwera pick primary target](#)
- [PanPac – Panui](#)
- [Postal Ballot Results](#)
- [Rawhiti Station](#)
- [Revamping the Ngati Pahauwera website](#)
- [Section 30 Representatives for Ngati Pahauwera](#)
- [Signed Trust Deeds](#)
- [Statistics NZ Iwi Profiles – Ngati Pahauwera 2006 Census](#)
- [Strategic Plan 2009 – 2014](#)
- [SUBMISSIONS TO THE BILL](#)
- [Te Huki Marae](#)
- [Te Kura O Mohaka](#)

This is the exhibit marked "EE" referred to in the affidavit of Toro Edward Waaka affirmed at NAPIER this 7TH day of FEBRUARY 2014 before me

Signed 
A Solicitor of the High Court of New Zealand/
~~Justice of the Peace~~

Hilton Fi Verry
Solicitor
Napier

- Tikanga Wananga
- Transition Managers 1 March 2012 Report – (Bryan King)

Information Sharing Hui

1 DECEMBER 2013

PUKEMOKIMOKI MARAE, NAPIER

10AM

1. Chairman's Report
2. River Restoration Project
3. Education Strategy
4. Takutaimoana Update
5. Kaumatua - Discovering their needs
 - Tikanga

"FF"

Ngati Pahauwera Development and Tiaki Trusts Annual Plan 1 April 2012- 31 March 2013

INTRODUCTION

1. This plan sits beneath the Strategic Plan developed by the Trustees in consultation with Ngati Pahauwera and the Plan for April 2012-March 2013 that was presented to the AGM on 4th September 2011.
2. The objectives listed in the Strategic Plan remain the same and are covered individually in this Plan.
3. The Treaty Settlement has largely been put in place. This means we have been able to identify some more specific steps toward achieving those objectives.
4. The Annual Report talks about progress made on the objectives in the Annual Plan presented to the AGM in September 2011. This Plan records the more detailed projects the Trustees have identified for the next 12 months.

KAUPAPA

5. The purpose of this Annual Plan is to record the steps the Trustees have resolved to take along the path to achieving their stated objectives. The destination is set by the **Vision, Mission and Guiding Principles** that the Trustees have developed with Ngati Pahauwera Members and which are stated again as part of this Plan

Vision

Te Oranganui o Ngati Pahauwera

A supportive, healthy, vibrant, prosperous and united Ngati Pahauwera

Mission

To protect and enhance the resources of Ngati Pahauwera for the welfare of the people and to maintain the Treaty claim settlement in a sustainable manner for future generations.

Guiding Principles

Kotahi: Mohaka Harara Taupunga Opunga

United in our diversity

Tuarua: Pakato i te ata, pakato i te ahiahi. Mauri mahi, Mauri ora, Hohonu kaki papaku auaua. Na Te Kahu o Te Rangi

Industrious and informed people prosper. Lazy people who only talk achieve little.

Tuatoru: Ko au Te Awa ko Te Awa au

I am the River and the River is me. The River is an integral part of my identity.

Tauawha: Mohaka tomaitangi hei whakamakuku, Mohaka te waitoa

The Mohaka River quenches the thirst and heals.

Tuarima: Ko taku rekereke ko taku turangawaewae

Where I dig in my heels is where I exercise my customary rights.

Tuaono: Kia u ki te pa harakeke

Cherish your whanau, hapu and iwi

Hilton R Verry
Solicitor
Napier

This is the exhibit marked "FF" referred to in the affidavit of Toro Edward Waaka
affirmed at NAPIER this 7th day of FEBRUARY 2014
before me Signature [Signature] Page 443 of 778
A Solicitor of the High Court of New Zealand / Judges of the Bench

OBJECTIVES STATED IN THE PLAN PRESENTED TO THE 2011 AGM PROGRESS SO FAR AND FURTHER GOALS (more detail in the Annual Report)

To finalise the Ngati Pahauwera Settlement

6. Settlement Date was 8th May 2012. The cash redress was paid on that date. The Commercial and Cultural Redress properties are now held by the Trustees of the Ngati Pahauwera Development and Tiaki Trusts. The Trustees also hold the Carbon Credits for the Mohaka Forest land. LINZ need to create the land Titles for the Mohaka Forest land and the Rights of First Refusal for Crown Land within the core area. That process is underway.

To appoint a CEO or Manager to the Ngati Pahauwera Development Trust

7. Bryan King was appointed as transition manager for a 6 month period from 1 February. The Trustees are reviewing management requirements for the next year.

To develop a strong infrastructure

8. Apart from appointment of the Transition Manager the infrastructure of the Trusts has remained the same as we continue to work on our Operational Plans which will determine what infrastructure we need.

To establish Ngati Pahauwera Commercial Development Limited and Ngati Pahauwera Social Development Limited

9. Ngati Pahauwera Commercial Development Limited has been established. On further advice a Charitable Trust, Ngati Pahauwera Manaaki Trust, has been established as the entity to carry out the Trust's Social objectives. At the moment the Trustees of the Manaaki Trust are the same as the trustees for the Development Trust. That need not always be the case but the Trustees of the Development Trust will always decide who the Trustees of the Manaaki Trust are.

Undertake a strategic overview of Settlement Claim Assets and set priority development targets in relation to Farming, Forestry, Fishing, Communications, Horticulture, Business.

10. This overview is underway, initially through various consultancy reports are providing more detailed advice, information and options for dairy, goat farming, horticulture, forestry and other possible land uses.

To undertake a stocktake of social needs and business operations within the core area of Ngati Pahauwera

11. Again that Stock take is underway and is detailed in the below.

THE PLAN

12. The Plan is divided into the development areas identified by the Trustees – Economic/Environmental/Cultural/Social/Governance. Some projects aim to support development in more than one of those areas. The Plan records the tasks the Trustees aim to complete in the next year

Economic

Mohaka Forest

- Assess and negotiate Pan Pac's request for extension of Crown Forest Licence
- Complete scoping study
- Develop long-term Forestry strategy
- Explore opportunities for Ngati Pahauwera members to provide contract services as well as employment opportunities in the Forest
- Assess ways of minimising environmental impact of Forestry operations
- Continue to liaise between Pan Pac and Pig Hunting Club
- Co-ordinate Wananga to consult/inform members about development opportunities

Cash redress

- Develop a Statement of Investment Policies and Objectives (“SIPO”)
- Establish an investment portfolio reflecting the SIPO
- Establish a distribution policy determining how much annual income will be distributed and how much reinvested (policy applies to income from land assets as well).

Wairoa District Council (WDC)

- Identify other possible WDC lands for return
- Negotiate rates relief
- Ensure processes in place to assess Resource Consents

Use of Trust Land

- Co-ordinate and consider consultant’s reports on possible land uses
 - Dairy (including potential processing for the wider area (Miraka model?))
 - Goats (meat/leather – noting current demand and supply logistics)
 - Horticulture – niche crops honey/tamarillos/pip & stone fruit
 - Tuna
 - Training Farm
 - Rongoa
 - Whitewood
- After considering the reports develop a long term strategy on
 - Use of Trust owned land
 - Possibility of co-ordination with Ngati Pahauwera owned land
 - Possibility of co-ordination with non-Pahauwera owned land in the core area

Gravel Extraction (also a cultural development priority)

- Work with Hawkes Bay Regional Council (HBRC) to develop a joint protocol for extraction and sale of gravel to;
 - Generate income for the Trust
 - Protect the mana and mauri of the Awa
 - Preserve Ngati Pahauwera access to resources such a hangi stones and driftwood.
- Develop a plan to add value by helping members become involved in extraction/sale/delivery of gravel as contractors.

Work Opportunities

- Arrange banks/accountants to provide training on financial skills and “running your own business”
- Look for opportunities to provide additional work/business opportunities for Ngati Pahauwera members in any projects:
 - Forestry Contracting
 - Pest Control
 - Land development
 - Agricultural Contracting
- Co-ordinate with OTS/LINZ/DOC for preparation and signing of Conservation Covenants/Easements/Transfer of existing Titles and survey and issue of new Titles where required
- Complete transfer of redress into custodian companies

Environmental

Waste Management

- Develop Waste Management Plan
- Lobby Council to relocate Mohaka Site
- Lobby Council to review Waihua and Kotemaori Sites

Rivers

- Arrange legal opinion on Claim Strategy
- Pursue claim in line with Strategy
- Assess requirement for external advice/expertise
- Develop a Plan focussing on Tributaries, dams, natural filtration
- Scope and begin implementation of River Restoration Project.

Pest Control

- Wananga to spread information about Council/Board Pest Control plans and options
- Work with council to maximise Ngati Pahauwera involvement.

Tiaki Trust Land

- Complete audit of condition of lands and ecosystems
- Establish working relationship with DOC and management plan under Co-Management Charter
- Finalise Council protocols and procedures for consent to Resource Consent applications

Cultural

Marae

- Develop policies to assist Marae/Marae projects in the core area
- Complete audit of Marae needs in consultation with Marae Committees
- Support waananga to promote tikanga, reo and Kawa to Whanau.

Takutai Moana

- Pursue ongoing negotiations with the Crown
- Prioritise meetings with the Crown to progress negotiations
- Develop a strategy with legal advisers after meeting with Minister

Beneficiary Roll

- Review current roll
- Amend Trust definitions to be the same as in the Settlement Act
- Whakapapa Committee to check role – eligibility
- Investigate whakapapa “map”
- Hapu within core area – review who are eligible

Cultural Health Development Plan

- Develop the Plan
- Capture history (Dictaphones/audio visual history?)
- Scan important documents

Cross Claims

- Continue negotiations with Crown and neighbouring Iwi to ensure inclusion of affected hapu in upcoming settlements

Ongoing

- Through negotiation and submissions continue resisting Crown incursions into Tinorangitiratanga

Social

Education

- Complete MOE contract and employ contractor
- Negotiate further funding for Education Plan
- Complete profile and environmental scan
- Assess availability of other contracts
- Develop Strategy

Communication

- Comprehensive report for AGM
- Review website
- Consider Facebook site
- Schedule Hui A Iwi (2 at Mohaka (including AGM) 1 away)
- Include Marae in network
- Naumai place
- Develop newsletter (Bi-monthly)

Health Scan

- Scope funding opportunities to commence a health scan

Government Agencies

- Make sure letters of introduction are sent per Settlement Decd
- Progress relationships following up on letters of introduction to improve opportunity for state support for NPDT initiatives and Members.
- Look at opportunities through those relationships for better service delivery.
- Develop policy on social benefits from the Settlement Funds for Ngati Pahauwera members

Governance

- Complete Trustee elections and induction of new Trustees
- Put in place remaining Trust governance policies and processes
- Put in place remaining management policies and processes
- Establish management systems for commercial activities
- Devolve day to day operations to Ngati Pahauwera Commercial Development Limited
- Put in place robust reporting systems for Trustees to monitor conduct of the company
- Appoint independent Director to Company Board

Bryan King
Transition Manager



"GG"

Hawke's Bay

12 December 2013

**Ngā taonga o Ngāti Pāhauwera
Takutai Moana Claim**

Tēnā tātou

Anei ētahi kōrero hei tautoko i a Ngāti Pāhauwera me te kerēme o te takutai moana. Ki a koutou o ngā hapū, o ngā iwi o te motu, tēnā tātou katoa.

This letter is in support of the Takutai Moana Claim for Ngāti Pāhauwera. Outlined in the following text are taonga that support and reference the presence of Ngāti Pāhauwera affiliated taonga within MTG Hawke's Bay, Tai Ahuriri:

Tutira pou tokomanawa

This taonga is said to have been retrieved from Lake Tutira in the late 1800s by Guthrie Smith, and is recorded as being deposited to the museum in 1975 by Mrs Barbara Absolom, credited to Mrs J Archer Absolom. This taonga, as is referred to on the object label, affiliates to Ngāti Hineuru, Ngāti Pāhauwera, Ngāti Tū, Ngāti Kurumōkihi and Ngāti Whakaari as the hapū of Tutira.

Paora Rerepu letter

This letter is written by Paora Rerepu to McLean- there are written notes, and also diagrams, one of a flagpole and another possibly of a redoubt. This is most likely a reference to his pā at Mohaka, Te Huki. Date unknown. Letter in Māori.

Watercolours of Mohaka

c. 1855-1869 by Alfred John Cooper (d.1869) gifted by the Dead Letter Office of New Zealand's Postal Service. These pieces are currently displayed in the Archives exhibition, attached on a separate document is the text in the object label alongside the watercolours.

If other information regarding the referenced items is required, please do not hesitate to contact me.

Ngā mihi nui.

Migoto Eria
Curator taonga Māori
MTG Hawke's Bay
enc.

This is the exhibit marked "GG" referred to in the affidavit of Toro Edward Waaka affirmed at NAPIER this 7th day of FEBRUARY 2014 before me

Signed _____
A Solicitor of the High Court of New Zealand/
~~Justice of the Peace~~

Hilton R Verry
Solicitor
Napier

Attachment:

Mohaka watercolours

Alfred John Cooper was a carpenter, boat builder and artist who lived in Mohaka from 1855 to 1869. These paintings by Cooper depict Carlton Downs, a farm on the southern bank of the Mohaka river mouth then co-owned by the Riddell brothers. In one painting Cooper widened the view to include John Sim's licensed accommodation house with its store, jetty and boat. The orientation in some of the paintings suggests that Cooper sometimes painted from the northern bank of the Mohaka River. Behind him were two large pā: Te Huki, on the eastern river flats, and Hiruharama, on the cliffs above. Both pā were occupied by people of Ngāti Pahauwera.

Cooper himself lived further up the river on a small piece of land neighbouring Springhill Station owned by his friend and workmate John Lavin. Cooper's paintings of Springhill Station, Carlton Downs, Sim's hotel and their surrounds together form a unique map of the Pākehā community scattered along the southern banks of the Mohaka River in the mid-nineteenth century. This community comprised no more than 15 men, some with wives and families. Most were whalers who had given up a life on the sea to graze sheep on small plots of land. These farmers relied upon Ngāti Pahauwera waka to ferry goods down the Mohaka River to boats waiting at the mouth. Though physically separated by the river, Pākehā and Māori worked together to get their goods to market.

"HH"

Planning in Waste Management

TE WHAKAARI O TAKITIMU

Guidelines for Maori

Produced for Ministry For the Environment (Manatu mo te Taiao)
by Te Wai-Puanga (Aqua-Rigel) of 7 Denholm Road, Napier Hawke's Bay.
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This is the exhibit marked "HH" referred to in the affidavit of Toro Edward Waaka
affirmed at NAPIER this 7th day of FEBRUARY 2014
before me Signature [Signature]
A Solicitor of the High Court of New Zealand / Justice of the Peace

Hiltori R Verry
Solicitor
Napier
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Planning in Waste Management

TE WHAKAARI O TAKITIMU

Guidelines for Maori

Produced for Ministry For the Environment (Manatu mo te Taiao)
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TAKU UKAIPO TE WHENUA , TAKU WHENUA TE UKAIPO
When a child is born the placenta is placed in the land.
From that time onward the land serves as the placenta

Mihimihi / Greeting

Ko te Amorangi ki mua, te hapai o ki muri, ko te tuturutanga mahi whakapono o te Maori mana motuhake. Ano te pai, ano te ahua reka o te nohoanga o nga taina me nga tuakana i runga i te whakaaro kotahi.

E te Iwi whanui, rau rangatira ma, e nga whakatupuranga e ai te ki "e kore te kakano i ruia mai i Kuimatawhenua, i Irihia, i Raetihi, i Rangiatea, i Tiritiri-moana e ngaro, ahakoa haramai te poaka, te kau, te riona me te makimaki, e kore te puna wai mauri e mimiti. Na reira e nga morehu tapu, te pu, te weu, tena koutou, tena koutou, tena koutou katoa.

Homaitia te iti whenua ki te ringa matau , kia mihia , kia parorohia e te hupe , a , kia paiheretia nei nga roimata poroaki, a wairua, a hinengaro, a tatai, a toto hoki. Mihi, tangi, hoatu, haere, haere ki tua o te wai e muka nei i aku kamo.

Piki honohono, tatai hono. Te hunga wheturangihia ratou ki a ratou. Ka piki hono, ka tatai hono nga kanohi ora tatou ki a tatou.

E nga maunga, e nga awa, e kiwi, e weka, e toroa, e nga waka hekea te motu tena koutou, tena koutou, tena koutou e aki nei i nga kaupapa me nga tono a kui, a koro ma.

I eke, i eke, i eke panuku.
Haumiti e! Ka taiki e!

Acknowledgements

The writers wish to acknowledge the contribution of those who provided source material for this project. That of the late kaumatua, Te Otane Reti was taken from a written submission made by him during his lifetime.

Executive Summary

The purpose of this document is to empower iwi by providing an insight into the nature and scope of waste management issues. It includes guidelines for iwi on how to deal with these issues by applying strategic approaches to planning for waste management based on cultural values, traditional knowledge, practices and historical perspectives. Traditional knowledge and practices represent the cultural capital and currency of iwi.

The document is organised into four main sections or pictures. Within each section is a series of subsections. The writers have also incorporated **pepeha** and **tauaki** (proverbs) to provide insight into the beliefs, thoughts, feelings, actions and reactions of tangata whenua.

SECTIONS:

- i. **Te Ao Maori.** Traditional tangata whenua world-view of the environment based on customs and beliefs.
- ii. **Te Kauae runga a Uru-te-Ngangana.** Te Ao Maori is expressed through practical examples which describe the relationship and interaction of tangata whenua with the environment. The principle of Uru-te-Ngangana requires that there be balance in all things.
- iii. **Te Patu - Kohuru.** A summary and analysis of the nature of the tauwi relationship with the environment. This section is also a historical resume' of conflicts between tauwi waste management practices and tangata whenua environmental expectations.
- iv. **Te Whakaari.** Developing a plan to re-assert the vision of iwi.

Findings

The main findings from this project were that:

- * There is a history of mismanagement and deliberate neglect by the Crown of its Treaty obligations to protect Te Ao Maori - the world and environment of tangata whenua in the Rongomaiwahine - Kahungunu tribal territory - see page 7.
- * In the minds of Rongomaiwahine - Kahungunu, the Treaty of Waitangi is the mechanism which establishes environmental goals and standards, and enables the delegation of managerial responsibilities to the Crown. It is the benchmark by which hapu and whanau measure the extent of Crown performance of its obligations.
- * There is a need for the Crown to re-visit the matter of the quality of its performance (or non-performance) in relation to its obligations and it should do that in association with the tangata whenua in this area.

The Resource Management Act is a step leading in the right direction although Tauwi-Pakeha are already using it to marginalise their obligations to tangata whenua.

- * Tauwi waste management beliefs and practices in the tribal area have resulted in environmental degradation, the loss and destruction of natural habitats including traditional mahinga kai (food areas) and the over consumption of resources.

As a consequence, there is a significant record of protest involvement in waste and other environmental issues by local whanau, hapu and iwi dating back to the signing of the Treaty. In this respect tangata whenua have been major catalysts of change.

- * The environmental values systems of tauwi and tangata whenua are like two rulers of equal length lying side by side. One sets out to measure environmental values in centimetres or spiritual, mental, physical, and social terms and the other measures it in inches or materialistic and financial terms. There will always be points of disagreement and conflict between the two systems and the aspirations which stem from them.

Research Comment

In this project the writers endeavoured to provide examples and background material drawn from surveys, case studies, and research carried out in the Ngaati Rongomaiwahine - Ngaati Kahungunu territory .

Tribal Comment

The main body of the tribe stems from the marriage of Rongomaiwahine and Kahungunu. Other chiefs produced children. Kahungunu was known for his ability to produce tribes. This is what is meant by the proverb "*nga purapura whetu a Kahungunu*" - the many stars or tribes of Kahungunu.

Project Boundaries

The modern day tribal boundaries of Ngaati Rongomaiwahine and Ngati Kahungunu were used for this project. These are bounded by Paritu in the North East (Nth of the Wharerata Hills), to Te Maara Korokoro-a-Rawhera (a position out in the sea to the north east of Mahia) and from there to (Te riu o Wairarapa) the valley of Wairarapa.

Conclusion

Tangata whenua environmental concepts and practices are beginning to resurface in relation to Tauwi aspirations for the responsible management of the environment, the fulfilment of their Treaty obligations and the implementation of their Resource Management Act.

The terms being used to describe environmental behaviours are "*sustainable resource utilisation*" and "*waste minimisation practices and strategies*." In this document they are described as the body of kawa, tapu and noa and these are linked to the principles and practices of Te Ao Maori and Urutengangana.

- * There is a need to merge positive and practical aspects of tangata whenua environmental knowledge with tauwi technical expertise to arrive at workable models for the management of the environment and this document may be used to assist that process.
- * There is a need to educate nga uri kapara , the young of mixed race (referred to in the pre-european prophecy "*kei tua o te awe kapara he tangata ke, he ma a mana tonu te Ao*") at a very early age to a practical awareness of the value of the environment.
- * Iwi will find it difficult to communicate their values, views, beliefs and feelings on waste management and the environment to tauwi. The depth of feeling and emotion will often show through. It is important for Iwi to focus on the results they want to achieve, the behaviours they need to modify.

To be consistent with a holistic and integrated view of the environment, waste management plans cannot be regarded in isolation from environmental management as a whole. This is an essential feature of the concept of Te Ao Maori.

Project Map



Summary of Contents

PAGE:	CONTENT:
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E tangi ana nga reanga o uta, e mahara ana nga reanga a tai.
Ma te aha ra e whakamahana taku ori, kia tina? When the land , river and
sea creatures are in distress I have nothing to be proud of.

Waste prevention/management as an Iwi Objective

Waste management is a part of the total area of resource management and planning governed by the Resource Management Act. For tangata whenua the objective of effective waste management is to promote the wise use, limit the misuse and to encourage the re-use of resources so as to avoid damaging effects to the environment and its parts i.e, mana whenua, mana moana, and mana ao-te-rangi.

Kaupapa - Project Goals and Objectives

This document may be used by iwi as a practical guide and basis:

- i. For developing iwi waste management plans, practices and strategies based on tribal economic , cultural , spiritual and social data combined with modern knowledge, research and development.

The reality is that most iwi do not have resources, beyond people, for implementing major projects.

- ii. To ensure effective participation in planning and decision making processes which determine and give effect to waste management practices at local, regional and national level.

AND to assist iwi identify issues and select and refine advocacy roles in waste management based on iwi values, beliefs, attitudes and knowledge.

The reality is that without power to make and implement decisions, iwi success and effectiveness will depend on their skill as negotiators and in particular, on their ability to influence foreign decision making processes over which they have little real control.

Perceptions and interpretations

This section draws attention to the fact that it is sometimes difficult for tangata whenua to be able to communicate levels of meaning across the cultural gap. For instance Tauivi can have a completely different and erroneous idea of what is meant by the word of kaitiaki.

The language of tangata whenua is similar to other languages in that a single word can have different shades of meaning depending on the context where it is used. Allegorical expressions were used to provide different levels of cultural meaning and insight. In carrying out an analysis, these levels provided the platforms for tohunga (experts) to move between the dimensions of kauae raro, kauae runga, roto and waho. The following example shows how concepts repeat at various levels to describe the relationships and interrelationships between tangata whenua and the world as they knew it. This example is based on variations of the word ika - fish.

For example:

Hika. A term of address used to describe a relationships between people.

Ika. A fish in the sea of Tangaroa. Tangata whenua relationship with the sea and fish.

Ika whenua. An island in the sea e.g Te Ika-a-Maui. Tangata whenua relationship with the land and between land and sea

Ikaroa - the milky way. The sea of planets, in the sea of the heavens. The relationship between tangata whenua and the universe.

Ika mahara. A thought in the sea of the mind. Thoughts united to form the basis of the belief system.

COMMENT:

It is important for readers to be aware of the existence of multilayered concepts in relation to environmental knowledge. Without this appreciation it would be impossible to carry out any sort of meaningful dialogue.

Intellectual Property

The section which follows presents a brief introduction to some aspects of tangata whenua cultural capital and currency as it relates to the environment.

The **Mauri** (life essence), **Awe** (refined life essence), the **Ahi Pitau** (ownership) and **Ahi ka** (occupation, management and use) of this material belongs exclusively to the tribes of Aotearoa.

In this document **cultural capital** is the same as traditional belief, knowledge and practice. **Currency** is the value placed on cultural capital by the ancestors reflected in the means and methods (ie, waananga) used to transmit it through the generations.

Explanation of terms used

In this document unless the context specifies otherwise :-

- i. **Whenua** is the land or the placenta. The placenta is not a waste product. It was considered hazardous in some circumstances but for spiritual not physical reasons.
- ii. **Ukaipo** is the word for breast or milk. Waiu is another word for milk and this word was often used to describe the purpose of water i.e, for drinking.
- iii. **Regional Council** means the Hawke's Bay Regional Council
- iv. **Tauwiwi - Pakeha** is those citizens of whatever tribe or race who immigrated to Aotearoa following the visits of Abel Tasman and Captain Cook. It includes also Te Aitanga-a-Tauwiwi the living descendants of Pakeha ancestors.
- v. **Tangata whenua** (tuturu) is the indigenous people of Aotearoa. The descendants of pre-European Polynesian immigrants.
- vi. **Kaupapa** (plan or scheme) is a framework and direction for desirable and consistent iwi points of view and action in relation to waste management.
- vii. **Take** means to have a clear role, function and purpose. The word Take also means the result or effect of a particular action.
- viii. **Kawa** is the body of customary lore, laws, rules and regulations which govern and give effect to whanau, hapu and iwi behaviour. In most cases these aspects were based on rules of precedence, prejudice, belief and well established practice.
- ix. **Tapu** is the interpretation and application of divine laws. It is based on an acceptance of a divine existence, an understanding of their devine mission, function, purpose and expectations. Tapu also means sacred. Noa is the opposite of tapu. Noa means ordinary or unrestricted. One cannot exist without the other. Each one reinforces, offsets and balances the other.

- x. **Muru** is a mechanism for the re-distribution of wealth. It links concepts of ownership, use, responsibility and liability. Muru is related in meaning to Utu, and Hunao. Muru is used to resolve interhapu disagreements.
- xi. **Kaitiaki** is a guardian or interpreter who acts as intermediary between the personal, natural and supernatural. Kaitiaki operate at the human and spiritual interface. Kaitiaki are advocates and overseers.
- xii. **Te Ao Maori** means a belief and lifestyle based on the practice of environmental etiquette from a holistic perspective. Te Ao Maori is divided into **Te Ao Tuturu**, the permanent world or aspect and **Te Ao Hurihuri** the changeable world or aspect.
- xiii. **Nga Taha**. The components of a holistic view. These are the components or dimensions used by tangata whenua to assess any material, situation, thought or action.
- | | |
|-------------------|-----------------------|
| 1. Taha wairua | - spiritual dimension |
| 2. Taha hinengaro | - mental dimension |
| 3. Taha tinana | - physical dimension |
| 4. Taha whanau | - social dimension |
- xiv. **Te Ao Tahito** means the world and time of the pre- european ancestors. It is unchangeable. It is part of Te Ao Tuturu - the world of permanence.
- xv. **Tuakana** and **Taina** means younger or older. It applies in the cultural practice of respect for people on the basis of their age.
- xvi. **Whaioio** is a strategic planning method based on an understanding and the use of rotations and cycles. It is the opposite of **whakararangi** to plan in straight lines. For instance the seasons operate according to the laws of whaioio. When the first fish caught is thrown back into the sea this is whaioio.
- xvii. **Tohunga Arai** means a body of experts whose purpose is to act as environmental advocates and mediators for the family of Io Matua Te Kore (The supreme being). They did this in the same way as Tauwiwi - Pakeha lawyers represent the interests of minors before the courts.

- xviii **Manaakitanga** means having the ability to extend hospitality or benefits to visitors and guests. Manaakitanga is put at risk when food is rendered inedible by pollution.
- xix. **Urutengangana** means to achieve a balance. Urutengangana is the eldest child of Io Matua. The concept revolves around the idea of the existence of a force of order and balance in the universe.
- xx. **Mana** is a value associated with an object or person. For instance Mana or value may be placed on land, materials, taonga, expertise or the expert.
- xxi. **Utu** is a process of extracting payment or compensation. It is a process for resolving intertribal conflict. One of the features of utu is that all members of a group are responsible for the actions of a single individual. For instance, all Taiwi and their generations could be held responsible for the actions of the Pakeha Crown.
- xxii. **Iwi** means a collection of hapu or subtribes related by common ancestral ties to the land through hapu. Iwi is a vehicle and a process for hapu to express tribalism. Iwi exist to provide coordination. Iwi are guided by hapu.
Iwi is the collectivization of hapu.
- xxiii **Hapu** means a collection of autonomous whanau or extended families related by common ancestry, interest and ties to the land. There are no hapu without iwi, no Iwi without hapu, no hapu without whanau. *Hapu is the collectivization of whanau. Whanau (family) is the collectivization of tangata or individuals.*
- xxiv. **Tatau pounamu** is an intertribal, national or international treaty, pact, or contractual agreement. The contract may serve any purpose. Tatau pounamu may be ratified by intermarriage, an exchange of gifts, letters, speeches or the burial of sacred or symbolic articles. It is also the process of resolving intertribal conflict. Tatau pounamu were usually concluded on the tribe's borders. It could be used to establish demarcation zones or site specific agreements between tribal factions.
- xxv. **Hunao** is the process of resolving disputes between family and hapu members without recourse to bloodshed. Hunao may involve the exchange of gifts some of which may be spiritual or symbolical.

xxvi. **Ira Atua** is the immortal essence of people.

xxvii. **Ira Tangata** is the mortal essence of people .

xxviii. **Wairua** is the combined essence of Ira Atua and Ira Tangata.

xxxiv **Mauri** is the inner force, essential energy, source, genetic stamp, feature or characteristic of any living material, inanimate object or compound.

Mauri may alter its state from - mauri-ora, the organic or living state to mauri-mate, a lifeless or stationary state. Te Awe is the refinement of mauri. Te Awe also means the ultimate power which is the opposite of all power. Iwi exercise this power when they issue disclaimers to Crown actions.

xxxv. **Waananga** is the process of acquiring, sharing and passing on skills, knowledge and attitudes. For iwi, waananga is also a methods and a place where one may become acquainted with the eternal wisdom of Io Matua (the parent god) , the rules of the universe and nature and the experience, skills, knowledge, beliefs and attitudinal accumulations of people.

xxxvi. **Kauwae or kauae.** Kauwae is a jaw bone. It is also the word used for the two main divisions of learning.

xxxvii. **Taurekareka.** Slaves

xxxviii. **Mana-te-ao-rangi** is the control of the atmosphere.

He manako te koura i riro ai
Crayfish do not get caught by dreams
Na Hikairo.

WHY DO IWI NEED A WASTE MANAGEMENT PLAN?

There are many reasons for tangata whenua to become actively involved in the area of waste management planning and some of these are listed below.

The first reason hapu, iwi and whanau might have for being involved is a spiritual one which is embodied within the words of this **karakia** (prayer):

"Aroha ki te Atua, maungarongo ki te whenua, me te whakaaro pai ki nga tangata katoa. Turn your ways to the Atua, live in harmony with the land, and at peace with other people."

- i. The central issue for tangata whenua is to be able to live life in a way which is in harmony with the expectations of the environment (personified) and of their distinct spiritual, cultural and practical needs.
- ii. Iwi will be able to use their waste management plan to reconcile some of the issues surrounding current Tauwiwi - Pakeha mismanagement of waste and to reinforce their role as kaitiaki in ensuring responsible management practices.

KAITIAKI ROLE

By kaitiaki it is understood that tangata whenua will have these functions and roles in relation to the development of waste management plans, practices and strategies, namely to:

- guide, advise and indicate culturally suitable options and directions for the development of waste management practices within their tribal area.
- interpret, oversee, delegate, measure, assess, monitor and evaluate particular actions taken in regard to waste management and note their implications and the results in terms of their values and expectations as enshrined in the Treaty of Waitangi contract.
- support, espouse, advocate, protect, disclaim, consult, negotiate, influence or facilitate processes which result in fair, just, prudent and culturally wise and acceptable solutions.
- protect, espouse, guard and project the values and precepts of Te Ao Maori, Urutengangana and Maungarongo.

GOALS, OBJECTIVES AND ACTIONS:

The following Goals/Objectives and Actions are provided as examples to assist iwi focus aspects of their waste management thoughts , plans and actions.

IWI OBJECTIVE - EXAMPLE

To review iwi understanding , input and participation in issuing and monitoring compliance with planning consents and to communicate this understanding in a clear and unambiguous way to the decision makers.

IWI STRATEGY - EXAMPLE

By holding waananga to formulate iwi positions and stances on the different types of consent which iwi will be involved in authorising or opposing. In doing this , iwi plans should have a clear vision as to the desired state of resource use.

IWI VISION OR GOAL - EXAMPLE

The vision of resource utilisation shall be based on the concepts of Te Ao Maori, Urutengangana and Maungarongo (or their equivalents) a key feature of which will be to encourage practices of waste minimisation and sustainable resource use.

- iii. If iwi have concerns about the current and/or reservations about the future mismanagement of waste in their tribal area then issues and options arising from these concerns may be identified and consolidated within a plan in the form of long range goals, realistic objectives, time frames for specific actions, duties and delegations which include processes for monitoring and review.

IWI CONCERN - EXAMPLE

The tribe is concerned at the high number of landfill sites which are located over or near water. There is a possibility that contents of selected landfills will threaten the Heretaunga plains aquifer in ways which put at risk the viability of Napier and Hastings as healthy communities and which impact adversely on tangata whenua spiritual values and beliefs.

IMPACTS ON IWI SPIRITUAL VALUES AND BELIEFS

For iwi the entry of waste into water adversely effects the waiora (life giving capacity) of the water and turns water into waimate.

- iv A waste management plan which includes iwi position statements will enable iwi to respond instantly, effectively , consistently and proactively on a broad range of related issues in a coordinated manner.

IWI POSITION STATEMENT - EXAMPLE

The iwi position on landfill sites is that it is unacceptable to site these over the Heretaunga aquifer, near any water supply or in any ways which endanger the water supply and have the potential to turn it into waimate.

- v It is important for iwi in producing waste management plans to decide what their primary and secondary objectives are in relation to their own position and the plans of tauiwi. It should also consider the level and extent of their involvement.

PRIMARY AND SECONDARY OBJECTIVES - EXAMPLE

The primary objective in relation to hazardous emissions shall be to build up a knowledge of type, origin, cause and effect.

delegation: Two people involved in initial research for two weeks aimed at identifying the source, cause and effect of the emission.

The secondary objective shall be to find out what solution technologies exist.

delegation: Two people with appropriate scientific expertise involved in initial groundwork for three weeks.

SETTING PRIORITIES

- vi With a plan, iwi will be able to prioritise waste management issues in terms of their importance to iwi thereby avoiding situations in which hui are monopolised and dominated by external requests and demands. A plan enables waste issues to be accommodated alongside other immediate issues that in every day life are accorded a higher priority. Priorities will generally be based on the collective values.

IWI PRIORITIES - EXAMPLE

Given the importance and value of fishing to the future economic development of the iwi, priorities in the area of waste management shall be:

priority one: To cease the current practice of allowing the waste stream to enter water.

priority two: In terms of priority one, the iwi is committed to assisting Territorial Authorities to look at land based treatment or disposal options.

In setting their priorities iwi will need to list their values in order of importance.

OTHER REASONS/BENEFITS OF PLANNING

The Resource Management Act gives a special status to planning documents recognised by Iwi Authorities. Territorial Authorities are required to have regard to iwi planning documents in formulating their plans and policies. Without iwi input the plans of Territorial Authorities will not reflect the true nature and extent of their obligations to iwi. At a regional and local level, planners will have a better understanding of iwi values and perspectives and this will help them in the development of overall waste-management programmes.

BENEFITS FOR THE CROWN

There are benefits for Central Government in that iwi plans will ensure the Crown has access to collective iwi points of view and this will serve as a starting point for interaction and negotiation with iwi. Iwi plans will reduce delays in gathering iwi together to put the iwi viewpoint. This is often required at short notice.

INAPPROPRIATE EXPECTATIONS

Territorial Authorities and the Crown must not expect that there will be iwi consensus on every issue whilst they themselves present the best examples available to iwi of disarray, disunity and disagreement.

TRIBAL BASIS FOR PLANNING

Ko Kahungunu he tangata ahuhenua, mohio ki te whakahaere i
nga mahi o uta me o tai.

Kahungunu was renowned for his planning ability and
productivity on land and at sea.

Kahungunu was well versed in iwi strategic planning principles, techniques and concepts including:

i. **whaioio** (planning based on cycles)

Eg. A te raumati ka ... in summer we will
A te takurua ka in winter we will
A te hotoke ka in autumn we will
A te koanga ka in spring we will
A te raumati ka and next summer we shall

ii. **whakararangi** (linear planning) Eg. Ko tenei, tena, tera (this followed by that).

iii. **whakahoro-a-nuku** (land based planning) An understanding of geography.

iv. **whakahoro-a-rangi** (interactive planning based on an understanding of the workings of the cosmos and the earth)

It is likely that iwi will include variations of these and other principles in their own approaches to waste-management planning.

Example:

At Te Maungakaahia Pa, Kahungunu was responsible for organising the complex of canals which separated water for irrigation, drinking, washing, sacred ceremonies, learning and health. Iwi may want to set aside water for different purposes.

THE HISTORICAL AND CULTURAL SIGNIFICANCE OF WAI/ WATER:

All water is considered sacred. Therefore the protection of water or **wai** will occupy a prominent and special place in the waste-management plans of iwi. Iwi will discover the extent to which it has been abused by tauiwi who use water as a dumping and **wahi huna** (hiding place) for waste. This whole section is dedicated to assisting iwi to communicate their views to tauiwi on the importance of their relationship with water.

Water shares these dimensions (taha) with all other aspects of tangata whenua life.

spiritual significance	- taha wairua
mental significance	- taha hinengaro
physical and economic significance	- taha tinana
social and cultural significance	- taha whanaunga

Water sustains life. For example, Te Hapuku passed a law for lake Poukawa at Te Hauke. He called it Te Hapuku's law. The law said that the lake was never to be drained - that it was to remain as the **waiu** (milk - sustenance) of the people. Te Hapuku stated that his law was to be binding on Maori and Pakeha forever.

Water gives meaning to the identity of tangata whenua. For example, it is significant that the question "ko wai koe" may be used to ask a person what well, river, part of the ocean or desert they belong to.

Water is also inextricably linked to both origin stories. For example, the question "No wai koe? Who do you belong to?" has an intense association which goes back to the time of the creation. Waters from the womb of the mother are called **Te Ahuru - Mowai** in memory of that original event. The ancient word for the modern practice of travelling through space from planet to planet is also known as Te Ahuru - Mowai.

Other types of water are:

- the waters of spiritual renewal and life
"Nga Waiora a Tane"
- drinking water from artesian wells
"Wai Maori"
- waters for baptising and dedicating children
"Wai Tohi"

Some migration waka were named after pre-pacific wells e.g Takitimu.

WAI MATE:

Water which is entered by the waste stream is called wai mate. Waimate is non-drinkable and cannot be used for other purposes.

IWI GOAL IN RELATION TO WATER

That all waste water be treated to a standard safe for human consumption.

EVERY IWI ACTIVITY A PLANNED ACTIVITY WITH A CLEAR PURPOSE

For the tribe every activity was a planned activity with a clear purpose and take or expected result. The opposite of take is **koretake**, having no purpose, direction or function in life. Not to plan an activity is frowned upon as revealed in the saying, "**te haere ponana or te haere pohehe**". These sayings mean "having a head and stomach full of emptiness."

Activities including those relating to waste production, treatment and disposal were governed by **kawa, tapu and noa**. The amount and type of waste produced was and still is a measure of cultural efficiency. Tangata whenua produced very little waste and that which was produced was mostly green, organic or biodegradable waste which was in the capacity of the environment to assimilate and purify.

Kawa, tapu and noa are generic concepts meaning that they affected every human activity. These were essential components of **Te Ao Maori**, the belief system and lifestyle of Tangata whenua.

Te Ao Maori is a way of life which is inseparable from the environment upon which life depends. It involved the knowledge and application of sound environmental etiquette and practices built up over a long period of existence. Te Ao Maori was divided into two main areas namely, **Te Ao Tuturu** and **Te Ao Hurihuri**. Te Ao Tuturu encompassed aspects of life which were inevitable, stable, repetitive and unchanging and Te Ao Hurihuri embraced those parts which were in a constant state of flux and change. Together, these concepts form important resource management tools which tangata whenua bring to the table of **Parua-nuku, Parua-rangi, and Parua-tai**, of waste in the land, sky and sea.

WOMEN AND THE ENVIRONMENT
He wahine, he whenua i male ai te tangata
Men fight over women and their land.

Earth is the domain of **Matuanuku** and her children. The Earth was viewed as a female and there was a clear expectation that its human caretakers would treat it with the same degree of respect as that reserved for a **kuia** - elderly lady.

The first three human beings created on this earth - i.e **Hauone**, **Titama** and **Wherangi**, were all female.

When these women were created they became the holders of the unbreakable link with the creator through the umbilical cord or **Aito**. They also became the guardians of **Mana Tuanuku** - the mana of the earth. In our tribe this fact is symbolised in the carving over the doorway of meeting houses where the central figure is a woman standing above a hill. The concept of **Aito** has implications for land and resource ownership ie, **Te Ahi Pitau** as opposed to **Te Ahi Ka** or land settlement, occupation, use and management.

Whilst attempting to usurp **Ahi Pitau** for the Crown, the Resource Management Act makes **iwi** into lowly advisers or **taurekareka** for Pakeha local authorities through whom the pretension of **Tauwi ahi ka** is expressed in terms of **Tauwi** objectives. This whole aspect has never been sorted out and will be one of the major areas of future contention between **iwi** and the Crown in relation to the environment. The Treaty confirms the position of Maori as holders of **Te Ahi Pitau** and **Te Ahi Ka** in perpetuity.

At the creation, women inherited **aroha** the inner strength of emotion and compassion while men inherited **kaha** the external strength associated with materialism and physical prowess. The strengths of both are necessary to rescue the environment from ruin and so it is important for **hapu**, **iwi** and **whanau** to reflect a gender balance in their plans. Maori men may view the environment in terms of management and resources and they may spend their time hunting and gathering **putea/resources** to do a particular job. **Iwi** and **hapu** women have not generally been exposed to this level of resource dependency and are not likely to focus on why a particular job cannot be done. *Tane ma, kauaka koutou e waiho i o hoa wahine a waho i o koutou mahi.*

Wahine ma kauaka koutou e whakahe ana i o hoa tane. Kia kaha mai te awahi tetahi ki tetahi, kia wahi oranga nga tipuranga!

Te Ao Maori obliges users to leave the environment in a functional state of self-sufficiency as though it were an important valued person and respected partner.

MURU AS A MEANS OF REDRESS FOR LOCAL ENVIRONMENTAL DAMAGE

Breaches of kawa and tapu in relation to the environment amounted to acts of desecration and in the mind of tangata whenua these were viewed as capital offences. In some cases acts which breached tapu were punishable by divine intervention and that possibly meant death from supernatural causes. Breaches of kawa and tapu by related hapu were more usually punishable by muru, a form of offender or abuser pays. Muru could involve confiscation of the property and assets which form the wealth of the offending individual and group. Breaches of kawa and tapu by related whanau usually led to bad feeling between the families and these were resolved by hunao which involved the exchange of material and symbolical gifts.

In the context of cooperative living and ownership, muru was an instrument which forced materialistic values, including the base urges of greediness and selfishness, to be kept in proper perspective. Muru could be used to punish, reaffirm or acknowledge. Its use was justified on the basis of negligence or accidental actions as opposed to deliberate or premeditated actions which were resolved by utu.

The practice of utu in modern times could be extended to include financial liability for the re-mining and relocation for disposal or storage of dangerous waste from existing local sites. Similar precedents exist in the fishing industry where a boat may be confiscated for activities which break tauwi laws.

Hapu, whanau and iwi have a power to vary any conditions of responsibility and to determine the extent of liability in cases of muru and utu.

The pollution and desecration of the famous Tangoio mussel beds is an example of local negligence and intransigence where a case could be made for muru.

Example of the mechanics of muru:

As a theoretical case, muru could require the mussel beds to be restored to their former state i.e, fit for hapu use and there would need to be other damages perhaps in the form of monetary compensation to whanau and hapu to cover losses suffered. The Tribunal and its underwriter i.e, the Crown, company or companies, farm or farms and the Council which may have contributed to this problem could be liable to make some form of restitution.

Tauwi - Pakeha also have mechanisms for dealing with situations where Pakeha owners, growers and crop holders who are effected by spray drift from neighbouring properties may be recompensed for damage caused. It is important for iwi to realise that it suits the purposes of tauwi to have two laws in this country.

For tangata whenua offences against the environment put at risk their ability to extend manaaki or hospitality and benefits to people and guests. Tauwi-Pakeha would feel the same way if tangata whenua began dumping unwanted rubbish and toxic substances in the supermarkets. Any product which goes out of this country reflects back on iwi and tauwi mana. For instance, if Japanese realised they were being fed fish caught in a tutae bowl, export markets would suffer.

For tangata whenua this kind of behaviour leads to a lowering of the high standards of cleanliness and food hygiene set by whanau and hapu for visitors and it contributes amongst other things to a lowering of their mana.

UTU AS A PROCESS OF NATIONAL REDRESS FOR TREATY BREACHES

Utu is a concept of payment, compensation or restitution aimed at restoring balance, value or mana in situations where there is an imbalance between tribes. Whenever, **Tatau Pounamu** were breached then utu would apply. Utu could be a means of obtaining compensation in situations where the mana of a tribe was put at risk by inappropriate acts of a third party.

The main justification for utu could be:

- the deliberate theft, sale, loss or destruction of any natural resource, asset or habitat covered by the Treaty of Waitangi - and which is carried out against their collective wishes and agreement obtained in a fit, proper and fair manner and without duress or resort to blackmail.

Example of Tauivi - Pakeha applying the concept of utu:

The settlement in the Rainbow Warrior case was an example of Tauivi-Pakeha exacting utu from their French relatives for the destruction in Tamaki (Auckland) of a waka (canoe) named after the ancestor Kahukuranui (The rainbow warrior).

Utu is ongoing.. Liability for damage may also be passed on to a person's relatives and descendants over long periods of time before payment was extracted. Those who feel they are owed utu do not have to prove how the damage was done.

In utu the debtor would not have a power to declare themselves bankrupt or otherwise incapable of making good the damage.

The difference between utu and muru may be one of scale and the extent of premeditation. At present National Maori Congress seems to be advancing matters of national utu on behalf of iwi whilst the Waitangi Tribunal together with iwi, hapu and some individuals, seem to be involved in localised or site specific muru. Very few cases of utu have been settled to date and certainly none in relation to waste.

IWI GOAL

An iwi goal might be to get the Crown, Territorial and Local Authorities to acknowledge concepts of utu and muru.

SETTLEMENT PROCESSES:

The process of paying compensation or righting damage, was known as **tokowhakea**.

The result of a binding settlement was known as **tatau pounamu** and this was generally a public process. When a particular debt was retired or seen to be paid in full then the words, "**kua ea**" meaning "All things are equal", or, "it is paid in full", were used by the creditor or victim to denote this fact. Kua ea in this context is a receipt or record of "permanent satisfaction."

It is certain that iwi will continue to be involved in seeking utu and muru in relation to waste-negligence in future and that process may continue for many years or at least until the position of "kua ea" is achieved.

It is important for Government to seek iwi involvement and the recognition of iwi values and outcomes. Iwi involvement in environmental decisions (minimal though it is) through the Resource Management Act and other Acts lessens future impacts of utu on the descendants of Taiwi- Pakeha.

IWI GOAL

To carry out a process of identification , classification and analysis of iwi environmental values and outcomes.

THE VALUE PLACED ON THE ENVIRONMENT.

He kura tangata e kore e rokohanga. He kura whenua ka rokohanga
Ina waiho ma te whakama e patu. Land is our basic treasure.
It has spiritual and practical values which will outlast man's brief stay.

Tangata whenua have always held that the environment is the sum, the means, cause and effect of life as they know it. This placed the environment on a value scale above individual and personal considerations.

Particular words were used to refer to people and behaviour which put the environment at risk. These describe the behaviour of the person in highly derogatory ways and in doing so emphasise the socially unacceptable nature of their acts.

People who damaged the environment were known as **tutua**. Tutua means an outcast. It also describes a process in which all rights except perhaps the right to breathe were withdrawn by the community. Sometimes whole families were exiled.

Waiho ma te whakama e patu - let shame be used to modify the offensive behaviour.

Examples of other words used to describe behaviour:

whakateko - a person who by their actions equates themselves to dung. This term was used to describe anyone who defecated in water or allowed their urine or tutae to enter a waterway or to contaminate a food source.

porangi - a person who is unable to differentiate between night and day, between good and bad, between cause and effect.

parariko - a person who is filthy and untidy of mind and habit.

In recent times this last term was used to describe the habit of washing babies and/or their nappies in the sink.

Any person who exercised loose habits in relation to the environment was classed as a descendant of **Wawaru**. Wawaru being the lord of imbeciles.

Maungaharuru ki uta Tangitu ki te moana. Ka huaki a Maungaharuru ka pa a Tangitu, a, ka huaki a Tangitu ka pa a Maungaharuru. Ko o ratou pa he rekereke "When the Maungahuru ranges are closed to birdsnaring the kaimoana beds at Tangitu are opened.

Aspects of the Tribal Planning Cycle

Ngaati Rongomaiwahine and Ngaati Kahungunu were long range strategic planners by necessity and design. Iwi planning equated to the survival of the tribe and for this reason it was based on a commitment to the "forever principle".

This principle, the principle of Te Ao Maori is closely linked to the regenerative capabilities of the universe, the environment and all its aspects. It refers to the type of environmental planning which will ensure that human beings are able to live on the planet indefinitely. In this respect Te Ao Maori is about long term planning.

Hapu living between the Mohaka and the Waiohonga river used the proverb to apply the practice of resource utilisation on a rotational basis.

They moved into the Maungaharuru (Napier-Taupo road) ranges at certain times of the year and returned to the coast at others.

Short range planning was based on an eight to eleven year cycle which was modified from time to time to take into account fluctuations in climate and seasonal variations. This part of the cycle was related to patterns of behaviour of the sun.

Within the eight year cycle there were two noted periods of the year which governed hapu movements between Maungaharuru and Tangitu. These were Ngahuru (the harvest) and Waru (lean season or famine). Each year was divided into four seasons (macro seasons) roughly equal to those of tauwi and each of these were subdivided into four creating a total of sixteen micro seasons or planning cycles.

Example:

ahikaea	first part of spring
ahimaru	second part of spring
ahinui	third part of spring
ahikoa	fourth part of spring

Elders were able to mark seasonal changes by the flowering of trees and plants, by changes in the tonal qualities of bird and insect song and their behaviour, by the movements of shellfish beds, the appearance of migratory fish and birds and by the configuration and appearance of certain stars. **Tohunga Arai** were trained to interpret the many calendars and **tohu** signs and these were used to regulate activities. For instance, kumara is not planted when the **koekoea** (long tailed cuckoo) first re-appears in Aotearoa but on the morning after the day on which it exhibits a strange form of acrobatic flight.

The movement of the population during the year meant there were periods when pa were unoccupied and during this time organic waste would continue to decompose in small amounts. The process of aeration was assisted by the addition of layers of **para**, a variety of fern.

Iwi life was centred on defensive pa from which whanau and hapu dispersed to food gathering areas at specific times of the year. Each hapu possessed a number of **kainga** or unfortified bases for fishing, eeling, hunting, gathering and planting. For this reason the contents of inland and coastal midden differ in the amounts and variety of material which they contain. Within iwi boundaries whakapapa or kinship ties and networks enabled hapu to share access to particular food resources.

Example:

Up until recent times the Maungaharuru range was the basis for exchanges and trade in pigeon, dried fish and shell fish between the people of the coast and the Ngaati Hineuru hapu of Te Harotoro. Unfortunately it is not possible for these people to catch pigeons nowadays. Bird habitat has been destroyed by tauiwi foresters and their kaimoana has been polluted by sewage and industry or wiped out by predatory practices. The proverb which heads this section is now meaningless.

Iwi resource management practices were developed to the point where natural resource utilisation was linked to targeting based on gender as well as socio-economic and other factors. For example, in Rongomaiwahine some fishing grounds and even different parts of fish were reserved exclusively for the use of women so that they had access to the oils which their bodies needed when they were preparing to bear children.

IWI GOAL

An iwi plan might include mention of the allocation of resources by gender.

COMPETITIVE EDGE:

Kei tua o te awe kapara he langata ke. He ahua ma
a mana tonu te Ao

A new lightly tanned generation will take over

It makes practical sense for the Crown to work with iwi or to conduct research into the indigenous culture of this country before proceeding with legislation which affects the macro-economic interface between natural resources, added value concepts and international commercial activity.

The competitive edge will depend on the extent to which the country succeeds in integrating Maori cultural capital with tauiwi financial equity and knowledge. The mixing of Maori cultural capital will provide the basis for a unique advantage which other countries would not be able to compete with.

"E whara ana te tihī" good sense falls on many mountains and when it departs then the mountain falls.

BASIS FOR WASTE MANAGEMENT IN MYTHOLOGY

Taku hei piripiri, taku hei mokimoki, taku hei tawhiri
'taku kati larama. E koa nga mauku o le motu, ka mate a
Maruwehea.

Where the scented ferns abound, the god of stinks is
overcome.

All planning, including that for the environment was based on an understanding, respect for and appreciation of Papa-tuanuku, Ranginui (sky and earth parents) and their children.

The idea of a divine legislature containing approximately 84 divisions each with its own personification was used by iwi to divide and separate aspects of their reality, to identify needs, to delegate responsibilities, and to apply integrated management principles and strategies in relation to all sections or sectors of the environment.

Tauiwi - Pakeha use filing systems in the same way, to store and categorise data.

The primal parents and their children had several titles and this assisted the process of tagging, identification, prioritisation and the application of case specific principles and strategies.

Example of tangata whenua mental filing system: (For principle read also the word practice)

Urutengangana - the eldest child of Rangi and Papa. The principle of balance

Tane Matua - the main branch of knowledge relating to people. Similar to the Tree of life concept The principles of descent and transmission.

Tane Tokorangi - the relationship between trees and the earth's atmosphere. The principle of interconnectivity and inter-relatedness.

Tane Te Waananga - all specialist knowledge. Similar to the tree of knowledge concept. The principle of refinement.

Tane Mahuta - knowledge of trees and forests. The organic sciences. The principle of regeneration.

Matangaroa - knowledge of the broader aspects of sea culture The principle of sectionalisation.

Hina whakamautai - the knowledge of the combined workings of the moon , currents and waves. The principle of interactivity.

Maruwehea was the origin and personification of offensive smells. To overcome the effects of Maruwehea, hapu would plant their umu teretere (landfill) with different types of scented fern and moss. Parua was the personification of green waste. A derivative of this word is **paruparu** meaning dirty. Paru is also the word for a leafy compost which was used to dye garments. For instance, the famous golden colour of piupiu belonging to people living in the Tangoio area came from the paru of the ancestor Pania obtained during her menstruation. Local harbour dredging operations may have covered the paru of Pania to the extent that local hapu are no longer able to access her sacred paru.

The essential difference between waste material in pre-european and modern times was one of variety, type , toxicity and volume. In pre-European times waste consisted of shell, stone or bone and green or organic waste. Today we have large volumes of technological waste eg, plastics , chemicals, metal etc.

There is a difference in attitude towards the environment and in our capabilities as people to respond to its needs. We are less efficient users of resources and have a weak spiritual relationship with and understanding of nature. We try to control, compete or defeat the purposes of the nature and that is our downfall.

"Tuiwi karuwha - Tuiwi have eyes in the backs of their heads." The early ancestors came to the conclusion that tuiwi did things back to front and that they had eyes in the backs of their heads. For instance they rowed waka backwards. The trend still continues today. Tuiwi look back to their homeland for ideas, practices and solutions to problems which they face in Aotearoa. The same thing applies to their source of attitudes.

IWIGOAL

A goal might be to work at assisting tuiwi adjust their attitudes to the needs of this country. This is a long term process, one which begins with an open mind and door.

CONTROL OF THE WASTE STREAM BY CONTROLLING THE MEANS OF CONSUMPTION.

E loa pakari, e pai kai. The way in which a warrior behaves towards food determines their position in the army.

Patterns of consumption contributed to the types of waste and these were influenced by several factors including the seasons. The amount of waste material was regulated by controlling the means of consumption. Iwi were selective in relation to the seasons. Timing, place, condition, gender, size, amount and method of extracting resources and controls were strict. The purpose was also selective. For instance, iwi took food for their immediate daily needs, for hui for trading purposes or **rahui** and for providing hospitality to visitors or **manaakitanga**. These are some of the ways patterns of consumption were influenced in this tribe and iwi might like to include similar points in their plans. It would also be useful for iwi to apply some of these controls to correct the destructive effects of the tauwi fisheries quota system. **For example:**

- i. **Optimum condition controls.** Ngaati Rongomaiwahine hapu would travel from Te Mahia to the iron pot area in Napier at a particular time of the year to catch gurnard because it was in better condition at that spot at that time. Visits also provided opportunities to renew or re-assert whakapapa links and to exchange news and views.
- ii. **Mechanical controls.** Kete (kits) with different sized holes were used for taking pipi and other types of shellfish. The smaller pipi would fall back into the water through the holes. This same principle applied to nets.
- iii. **Gender and size controls.** In relation to koura (crayfish) the smaller fish were caught. Sometimes this was governed by the principle of **katabi tihe, e rua tihe** i.e, taking two males to one female.
- iv. **Quota systems.** "Mitia te arero" (the number of paua you could lick) was a method used by people to determine the amount of paua to take from the sea at any one time. This is not the tauwi quota system.
- v. **Rotations.** Food areas were divided and managed by hapu, iwi and whanau. The elders and tohunga would rotate the use of the various areas and resources using rahui.

UMU TERETERE AS A RECORD OF CHANGES IN PATTERNS OF CONSUMPTION

Midden reflect patterns of consumption. Pre - european midden may be distinguished by precise demarcations in the layers of waste. For instance, in a particular section of the **umu aanganga** (shell dump) pipi shells may appear beginning with the largest shells to the bottom of the layer. These reduce progressively in size and then the shells stop appearing. Layers of bone of one or two fish species may appear followed by a layer of **rarauhe** (crushed eating fern stalks) and a layer of mixed bird bones and crushed lime which could have been used to assist the chemical decomposition of waste. The pipi shells re-appear higher up in the midden starting once more at the larger size. The breaks indicate rotations (**whaioio**) in use and the application of **rahui** or prohibitions and restrictions on use. The word for open slather resource usage is **raweke** which is also the word for rape and pillage. At worst raweke can mean wanton destruction, without an appreciation of consequences, or uncontrolled, unsupervised resource usage. The tauiwi practice of unbridled capitalism or market force captivity is an example of extreme raweke.

One should visualise whaioio in terms of a circle with an intersecting cross through the centre. The left side of the horizontal line representing extremes of rahui, the right side extremes of raweke. The vertical line represents Urutengangana - the line between balance and imbalance.

Post - european midden reflect the breakdown of hapu management systems, controls, checks and balances. Midden layers contain a haphazard mix of fish and bird bones as well as shells of all types and sizes together with the remnants of green waste compost.

This breakdown was brought about by tauiwi banning Tohunga from their teaching and managerial roles and functions by legislation. The highest Tohunga (expert) or Mataheru were trained according to the life - death principle which is similar to having a degree and an anti-degree in the same field. *"He hoariri ano te hoa - your best friend can be your worst enemy, your worst enemy your best friend"*

IWI GOAL

Iwi might like to include statements on rahui and raweke in their plans.

EXERCISE OF DISCRETION AND RESPONSIBILITY.

Ma wai ra e Taurima te marae a waho nei. Who will take over in the years ahead.

In the whanau and hapu control of consumption was delegated to these people:

- elders - koroua and kuia
- environmental experts and specialists - Tohunga Arai
- sector managers and chiefs - Rangatira

Within whanau (families) rules of Tuakana and Taina also operated to control consumption. In this, older members supervised younger ones. In order to arrive at a suitable amount of food for one's personal use one had to divide the amount of food by the number of stomachs. Once the food was set before a person they were expected to eat it all. Parents continued this practice in recent times by scolding children for having eyes bigger than their stomachs. It is a mortal insult to leave food on your plate/kono especially when that food is put before you by another tribe.

The language Maori has different structures which were used for people of different ages. In the following example the word **he** is used to encourage a person to assess the requirement and to exercise their discretion in fulfilling it.

"Tikina mai te tahaa wairere" fetch the broken calabash"

"Tikina **he** tahaa wai" fetch a or some calabashes".

When individuals were able to exercise their discretion wisely in relation to the environment then they were considered to be adult. Elders always taught one to take no more than the amount needed to meet immediate needs.

At iwi or regional level, consumption was controlled by highly trained tohunga, rangatira and the ariki. Throughout the system, efficiency was maintained by ensuring minimum but necessary levels of consumption. Minimum and maximum levels of consumption were agreed, set and rigorously maintained through kawa, law and lore. *Everyone was expected to be functional environmentalists to a greater or lesser degree. Nowadays you've got to have a tauwi degree to be functional.*

END OF CHAIN MANAGEMENT PRACTICES:

In analysing tauwi society, tangata whenua tend to apply these generalisations.

That great value seems to be placed on profit, material accumulation, achievement and recognition and that these are linked to position, privilege, possession, power, status and role. Assessment of wealth is limited to counting material possessions. There is a tendency to praise, admire and worship people who are net takers without looking at the substance of their morality. After a time the so-called top end begins to believe its self-praise and becomes arrogant about its position and inevitably what it proposes becomes divorced from the perception of reality of those who are net losers.

To prevent this happening in Ngaati Rongomaiwahine, young male Ariki (male royalty) were expected to eat last. If there were only scraps left at this point, then this was how they received first hand knowledge of the effects of their inefficiency as tribal resource planners and managers.

PLANS WITHIN PLANS

Nga kokonga whare e kitea, nga kokonga o te Ao e
whai ake engari he kokonga ngakau a tangata e kore e
hangai kia kitea. Just as the parts of a house are easily seen
so the ways of nature are learnt through trial and error.

There will need to be plans within plans to enable iwi to respond across the spectrum of waste management demands. Iwi waste management plans may be integrated within iwi development or iwi resource management plans.

These will be the corporate plans that deal with specific targets to be achieved at hapu or iwi level within a year or two.

All Regional and Territorial Authorities need to take into account the range of plans recognised by an iwi. This will be a painful exercise for a colonial people and there will be much duck - shoving.

SITE SPECIFIC ISSUES AND PLANS - AREA OF INFLUENCE:

Some waste management plans may be site-specific and these will highlight the issues of concern to a particular iwi group at a particular point in time and place.

This aspect of planning may deal with the area of marae influence - perhaps an effluent discharge, outlet or toxic disposal area which is sited nearby.

Example of a site-specific issue and problem:

The Taumumu dump in Central Hawke's Bay recently featured in the news. Following heavy rain, tonnes of rubbish were scoured from the dump and washed into the Tukituki stream. The dump is soon to be closed.

General waste issues of concern to this tribe are also of concern to other tribes. Only the degrees of waste or the site-specific circumstances will vary.

IWI VIEW OF WASTE CATEGORIES:

The H.B Regional Council in their Regional Policy statement, Working Paper No. 2 on Waste Management, June 1992 have divided Waste Management into four sub-issue areas. These are hazardous waste, solid waste, liquid waste and organic waste.

These categories challenge tangata whenua beliefs in relation to waste management and the environment. The traditional view is based on generic principles, an understanding of interactive relationships and an across the portfolio perception of the environment. Wherever possible, this document promotes the value of that approach (Te Ao Maori) as its first principle.

TREATMENT OF SENSITIVE PLANS:

Iwi and hapu plans may have sections which contain sensitive cultural information and this information will need to be held by the tribe in a separate and confidential file for the exclusive use of their members and to prevent raweke - pillage and plunder. For example, iwi may not wish to indicate the location of wahi tapu, whare taonga, or mahinga kai in their territory and for obvious reasons.

Experience at Te Mahia has shown that of the seven iwi fishing grounds listed on maps which are available to tauiwi - seven have been plundered beyond total collapse.

Locations of special tribal, hapu and whanau taonga would come into this category also. In these situations iwi and hapu will simply need to steer tauiwi in other directions with as much tact or the lack of it as is necessary to achieve the required result. One way to do this is by talking in generalities or by using maps to indicate surrounding areas as opposed to specific locations.

RESEARCH AND SCOPING EXERCISES FOR RESEARCHING PLANS:

Any scoping exercise should be evaluated and tested within the Maori community at hui and waananga. Timelines may need to be extended to enable this to occur in a fit and proper manner. The process could be assisted by questionnaires and for that purpose the following pointers may prove to be useful:

1. Use how, why and what questions to obtain specific information.
2. Summarise perceptions of the magnitude and nature of problems in terms of iwi values then write position statements in relation to these.
3. Research and list potential options, methods and costs including trade offs and funding issues
4. Evaluate achievement and performance expectations, objectives and criteria and put in place monitoring systems.

CROWN RESPONSIBILITY FOR PLAN RESOURCING:

He Ao te rangi ka uhia, ma te huruhuru te manu ka rere
As clouds cover the sky, so feathers give the bird the ability to fly

Government responsibility for actively protecting iwi interests in the environment extends to resourcing iwi for expert iwi input and assistance. If Councils need iwi help to meet their obligations under the various Acts which they service then they should be responsible for resourcing this input in full consideration of the cost to iwi in time, equipment, money and people, knowledge and expertise.

THE VALUE OF CULTURAL CAPITAL:

The economic theories of tauiwi teaches them to "buy down" whilst expecting to "sell up". Tauiwi will try to access the knowledge of kaumatua (elders) for free while getting paid for theirs. Iwi have had enough of trying to sort out problems on the cheap - problems which on close scrutiny are found to be due to a lack of foresight or competence in strategic planning and managerial ability.

SAMPLE PLANNING PROCESS:

He ko te aruhe ka taea e te tangata kotahi te amo, te whawhai na te tokomaha. It takes one person to dig fernroot, many more are needed to plan and wage a campaign. Na Te Kohipiipi.

Planning will take place at whanau, hapu and iwi level. In an ideal setting, the function of iwi is to provide an overview and a vehicle for collecting, analysing, collating and coordinating issues and points of view which are raised by hapu but which might apply across the whole tribe.

IWI LEVEL:

1. GENERAL OVERVIEW (Te Mana Haro)

* IWI = VALUES ->PRINCIPLES-> GOALS ->POLICIES ->POSITIONS

Iwi need to identify and document the core cultural values in relation to acceptable waste management practices and strategies.

HAPU LEVEL:

In an ideal setting, besides doing the work, hapu hold the Mana Whenua and Mana Moana, the rights of Te Ahi Pitau (ownership), Ahi ka (management and use), Te Tino Rangatiratanga (control of decision making), muru, utu (liabilities), and kaitiakitanga (supervision and oversight). The iwi is a **mokai** or servant operating on powers delegated by hapu and sometimes on borrowed time as well. To ensure that plans are owned by hapu and that they accept the responsibility for implementation, iwi project teams need to consult widely with hapu and whanau and in doing so they will speak with Koroua, Kuia and Rangatahi.

2. SPECIFIC ISSUES & ACTIONS: (Te Mahi)

In most cases hapu will be involved in dealing with site specific issues i.e, issues of local concern to the hapu whanau. The process is different from that at iwi level.

HAPU = PROBLEMS ->NEEDS ->OBJECTIVES ->ACTIONS & SOLUTIONS
Actions taken by hapu are actions at a local or site specific level e.g, local tauiwi sewage outfall.

EXAMPLE OF A PLANNING FORMAT:

For Tauwiwi-Pakeha the need to develop "Critical Path Analysis and Scheduling" began as a result of the complex requirements of the building industry where external factors such as rain could alter completion dates for different activities. The effects would flow on throughout the entire project. Critical Path Analysis was a way of re-scheduling tasks at short notice to meet changing circumstances. To set out a pathway this document is arranged in a series of steps aimed at assisting iwi to identify critical paths and the crucial components for analysis and inclusion in a waste management plan of their own. In it, we identify values and principles, establish goals, document problems, set objectives and determine actions. Then we make recommendations which apply to regional or local conditions. We also identify the types of waste and the problems associated with that waste in relation to particular sites. Critical paths help people work out what order to do tasks in and they are useful for identifying critical stances or positions. EXAMPLE of an iwi planning process.

1.1 GENERAL OVERVIEW/ SITUATIONAL ANALYSIS - EXAMPLE

Waste management planners and planning briefs fail to scope existing information, acknowledge Maori values or investigate problem areas adequately in developing solutions which minimise dangers to the environment.

1.2 VALUE STATEMENT - EXAMPLE

The iwi has this value in relation to the environment: to sustain and maintain it in a fit and proper condition in keeping with the precepts and principles of Te Ao Maori and the expectations of "Te Maungarongo ki te whenua" and Urutengangana

1.3 MISSION STATEMENT - EXAMPLE

For that purpose the iwi mission shall be to get tauwiwi to understand the basis for their position on waste management by bringing to the debate a dimension and approach based on an understanding and appreciation of iwi environmental values and strategic planning concepts, ones which address the total needs of the environment and its co-habitants as opposed to those of one section or sector interest.

14 GOAL - EXAMPLE

To achieve the mission, the goal of the iwi shall be to change (for the better) the track record of poor environmental outcomes in Hawke's Bay which have resulted from western scientific knowledge and practice and the application of badly researched and constructed methodologies.

15 STATEMENT AND DESCRIPTION OF A WIDESPREAD PROBLEM, ITS EFFECTS ON UNDERLYING VALUES - EXAMPLE

Tests show that the kaimoana beds from Haumoana to Tangoio are now severely polluted as predicted by kaumatua in the last one hundred and fifty years. This indicates that the whole of the inshore environment is at risk. The effect is that iwi members living in the area are no longer able to access traditional food supplies and to maintain appropriate levels of manaaki (hospitality) and benefits to guests or traditional sustenance and commercial capability through intertribal trade and hakari.

An example of a generally held iwi view and value is that concerning the entry of waste into water. This effects the waiora (life giving, life sustaining capacity) of water. Water is subsequently turned into waimate/dead water.

Iwi value water which is functionally self-sufficient and clean.

16 OBJECTIVE - EXAMPLE

To fulfil the mission, achieve the goal and solve the problem iwi shall have this priority objective.

- i. To end the Tauiwi - Pakeha practice of discharging waste into water in Hawke's Bay by ? date.

Responsibility for coordinating this objective is delegated to Mrs Tuhapainga who will report to the group on a monthly basis.

17 METHODS/ ACTIONS/ STRATEGIES - EXAMPLE

Local body elections are due in _____ month and these will be followed by Parliamentary elections in ____ year.

- i. As part of the strategy to achieve the objective this iwi will mount a series of public awareness campaigns in association with "the clean sea coalition", local Tourism operators, Mayoral candidates, Department of Conservation and the Ministry for the Environment, local schools, and local MPs to convince the Twin City Councils and the community that it is in their long term interest to locate and develop suitable land based disposal and treatment alternatives and technologies.

18 PERFORMANCE MEASURES/ EVALUATION - EXAMPLE

- i. Iwi will know that the objective has been achieved when a suitable land based disposal option is operational and waste ceases to be discharged into water in Hawke's Bay.

SUMMARY:

A plan may be as simple or as complex as iwi require. It may contain several short, medium or long term goals objectives, and actions. The question of cost in human and financial terms may be included.

Iwi may draft a plan which is based on different types of waste and different forms of treatment highlighting their advantages and disadvantages. It may include a series of objectives based on various project stages.

The plan may also adopt a "problems to solutions" approach and be divided according to iwi, hapu, or geographic areas.

The plan need not be complete or perfect in order to work but work it must!

2.1 SPECIFIC ISSUES AND ACTIONS FOR HAPU IN LOCAL PLANS

The following type of plan is suited to hapu and whanau

2.2 THE PROBLEM - EXAMPLE

The Dump at Te Mahia is sited on a burial ground which is adjacent to an estuarine food area which has a potential to be developed by the tribe for marine farming.

The problem presents three issues which have adverse impacts on Rongomaiwahine people:

- it breaches protocol of reverence for the ancestors and respect for the dead.
- it puts at risk the ability of the tribe to ensure manaakitanga of visitors, traditional sustenance and commercial capability by polluting kaimoana and kaiawa sources.
- pollution creates potential health hazards for Rongomaiwahine people.

The problem is that this state is needless and unacceptable

2.3 NEED - EXAMPLE

The immediate need is to close the dump, to relocate the rubbish and to restore the ecological balance to the area.

2.4 OBJECTIVE - EXAMPLE

- To alert the Council to the problem as it effects Rongomaiwahine.
- To invite the Council to form a joint task force to investigate the problem.
- Having achieved that to meet and generate a value based outline of acceptable options for the task force
- To set timeframes for completion and implementation.
- To establish review and monitoring procedures.

2.5 SOLUTION/ ACTION:

By formulating solutions which result in the dump being relocated to a suitable site.

2.6 SUMMARY:

A plan may not involve much writing although tauwiwi will expect that it should. It may be a practical plan based on traditional symbolism, knowledge of kaitiaki and an understanding of their functions and behaviours.

WHO WILL DO THE WORK?

I hea koe i te tanginga mai o te Horiroriro
Where were you when the Horiroriro cried out

Taking into account the lack of resources and the reality that this work may come off second best in competition with other priorities, nevertheless iwi and hapu will need to select an individual or project team and decide on a process for developing their plan. The selection of kaimahi or workers may be based on Tauaki or proverbs, metaphors and hapu thinking. For instance, the saying "**kia tipu ai to pa harakeke**" applies to the social organisation and development of families in which the roles of individual members are governed by their understanding of the functions and uses of flax. One person may perform the **rongoa** healing aspect, another **maherehere** conflict resolution or uniting role, whilst another may look after the part based on "**unuhia te rito o te harakeke**". This part would involve taking responsibility for the education of the young in hapu environmental concepts and practices.

WHAT IS THE TASK? WHAT MUST THE RESULT ACCOMPLISH?

What is the hapu trying to accomplish? Describe or visualise the result.

The project team will identify the problems and issues for their rohe as their people see them and these may be developed having regard to some of the planning processes in this document. In some cases a hapu or iwi may wish to bring in outside Maori consultants to help facilitate some of these processes, especially where there is overload and people are struggling to buy bread and milk.

WHAT KNOWLEDGE AND SKILLS ARE REQUIRED TO DO THE JOB?

This list of skills may be useful for the selection process.

- * knowledge of hapu history and values - the ones who correct your whakapapa.
- * researching - the ones who ask all the questions at hui.
- * documenting - the ones who seem to write everything down.
- * analysing - the ones who hold back from making on the spot decisions.
- * communicating and reporting - the ones that know all the gossip.

- * managing - the ones who organise the marae and hui and tell everyone to be there
- * coordinating - the ones that run the sports organisations
- * facilitating - the ones who can take both sides in an argument
- * administering - the ones who upset the chairperson by reminding them that the last motion was not passed.
- * financial control - the ones who don't use the iwi and hapu name to access resources to set up private business.

WHO HAS THESE SKILLS IN THE HAPU & WHICH OF THEM ARE AVAILABLE TO DO THE JOB?

Identify people who have the necessary skills, knowledge and understanding of iwi value systems to do the task or parts of it.

WHAT RESOURCES DO THEY HAVE FOR THE TASK?

- Time
- Materials and Equipment
- Money
- People

HOW WILL THE HAPU KEEP TRACK OF PROGRESS?

Reporting timeframes, cost considerations, process and methods.

EFFECTIVE DECISION MAKING:

This section is included to assist Iwi and hapu with decision making. Decision making is an essential component of planning. Good decisions are not the result of sudden, isolated events but rather they stem from an ongoing and evolving process which can be broken down into a series of steps.

WHAT IS THE PROBLEM?

State the nature of the problem and check your definition against the known facts.

Eg. The problem is the adhoc issuing of permits for septic tanks. This process will have ongoing adverse effects on waterways and conversely on kaiawa and kaimoana. The problem is health, food, environment and culture related

WHAT IS THE EXTENT OF THE PROBLEM?

It may be a single isolated incident or the problem may be widespread in the rohe / district. Is a shared approach needed.

WHAT ARE YOUR PRINCIPLES AND OBJECTIVES IN RELATION TO THIS PROBLEM?

The principle is that Iwi do not believe any waste stream should enter water.

The objective is to influence policy and plans to prevent this from happening and to rectify existing problems which stem from the past.

WHAT MUST THE DECISION ACCOMPLISH?

The decision should ensure that all septic tank applications include a condition which prohibits septic tank outfalls from entering water ways.

WHAT ARE THE MINIMUM OR MAXIMUM CONDITIONS FOR A SUCCESSFUL OUTCOME?

The minimum condition is that all water from outfalls be drinkable. It is best for iwi or hapu to establish minimum and maximum conditions amongst themselves before entering negotiations.

COMPROMISE THE DECISION?

The compromise may be on the timeframe for implementation of the action but not on the principle.

REVIEW THE DECISION:

Assess whether the decision or the strategy achieved the result needed and to what extent. Is additional follow up needed?

WHAT ARE THE ACTIONS? WHO IS RESPONSIBLE?

Select a team and decide a process and timeline for approaching Regional and Territorial Authorities.

IMPLEMENT THE DECISION?

Inform the Council of the decision and include a record of agreements in the addendum to the iwi waste management plan.

HOW YOU ARE DOING?

Review on the basis of timeframe for implementation and completion.
Assess through independent testing of water quality, kaiawa and kaimoana

IMPROVEMENT TECHNIQUES.

Kia noho ai nga tuakana me nga teina i runga i te whakaaro kotahi
Senior and Junior - each one's contribution is valued.

A plan is like a child. If you neglect it then it shows. When it does there is a tendency for people to blame one another.

One of the simplest but most effective management techniques lifts the focus off personalities and places it back on issues.

This management technique is one sentence:

"me pehea ra ka taea e matou or tatou?"

- how can we improve on that?
- how can we avoid this happening next time?
- how do we get the Council to agree to our request.

People never plan to fail, they fail to plan - he ao te rangi ka uhia, engari ma te huruhuru to manu ka rere.

HISTORIC DEVELOPMENTS DECLARATION OF INDEPENDENCE

This section is included to provide a historical framework to background the tribe's rights of ahi pitau and ahi ka in the environment.

The arrival of the European in the Southern Hemisphere introduced to Aotearoa the potential threat of foreign invasion.

The British who had had an interest in the area for some time took measures to protect their interests through their resident official Busby.

Busby convinced 34 Maori chiefs to sign a declaration of independence on 28 October 1835.

The declaration also invited King William IV to be the protector of the new alliance. This declaration was acknowledged by the colonial office, recognised by the United States of America and the French.

The significance of the declaration of independence to Ngati Kahungunu was that Te Hapuku was a signatory.

Maori chiefs saw value in the declaration in terms of its ability to prevent threats of foreign invasion and that it would help overcome problems for Maori ships in international waters and trade. It was hoped also that the tribes would have a forum or runanga in which they could work through common problems in a peaceful manner.

The declaration presented a short term relief for the British in preventing the invasion of N.Z. by other nations.

When the British decided colonisation of N.Z. would be desirable they viewed the declaration to be a legal impediment to the assertion of British sovereignty.

Crown law experts were aware that on at least three occasions British statutes have recorded New Zealand as being outside British dominion. James Stephens of the colonial office considered it wise to make a Treaty rather than rely on Cook's discovery to assume sovereignty.

According to Claudia Orange the Treaty was also an answer to contemporary humanitarian interests. Lord John Russell of the colonial office expressed his opinion that "New Zealand was by solemn acts of Parliament and of the King recognised as a sovereign and independent state"

The point that was missed and which continues to be missed is that each iwi is a sovereign and independent state unto itself in the same way as iwi of Scotland, Ireland, Wales and England.

TATAU POUNAMU: IWI TREATIES

Ngati Kahungunu has a long history of intertribal and interhapu Treaties.

The Treaty of Waitangi is one of those intertribal treaties. It was signed by Te Hapuku and others from this tribe. The Railways deal negotiated by the National Maori Congress "Te Mangai Korero a iwi" is an example of a modern tatau pounamu.

Amongst iwi, treaties were known as tatau pounamu in pre-european times but more recently e.g, pre - 1900s they became known as kawenata or covenants. In future, it is likely that iwi will be involved in negotiating other general or specific Treaties. These may be regional, national or international in character. They may relate to or be extensions of their pre-existing rights guaranteed by the Treaty of Waitangi.

THE TREATY OF WAITANGI

By 1840 Britain was committed to entering into a treaty with the confederation of chiefs who had signed a declaration of independence. Governor Hobson was sent to New Zealand, charged with the duty of negotiating with the chiefs to get the right to set up a government. He was given a mandate to acquire sovereignty over the whole or any parts of New Zealand which the tangata whenua wished to give up.

Hobson presented the concepts of the Treaty to the chiefs gathered at Waitangi on February 5, 1840. At that time he outlined the articles and their intent.

The English Missionaries saw advantages in a strong British presence in the area and were instrumental in marketing the Treaty to make it palatable to the Maori Chiefs who were present.

On February 6, 1840 The Treaty of Waitangi was presented in the Maori language. Three hundred and fifteen signatories signed the Maori language version whereas thirty nine signed the English language version. The Treaty was also taken around the country and another copy was signed in Waikato.

The essential bargain of the Treaty was that the Crown was given the right to make laws excluding the right to make laws which breach the Treaty contract or which waiver their obligations and liabilities under it. One noticeable breach of the Treaty is in relation to the Resource Management Act which avoids the question of Maori ownership (Te Ahi Pitau) of resources. That Act focuses on tauwiwi resource management and use. The Treaty is an example of Te Ahi Pitau in that it confirms pre-existing ownership rights.

RIGHTS RETAINED BY IWI IN PERPETUITY

The Treaty set limits on the extent of law making by the Crown. In signing it iwi, hapu and whanau retained 'Te Tino Rangatiratanga', 'Ahi Ka' and 'Te Ahi Pitau'

Amongst some iwi, **ruahine** (women of high birth) had the ability to transfer Te Ahi Pitau. They also had the ability to lift the heaviest of tapu.

Tino Rangatiratanga means without restriction. This power could apply to overruling the Pakeha law, the Pakeha Crown or even the Treaty should iwi find this necessary.

The Crown must realise that any variation of the Treaty is a public iwi process. It is not a matter of getting a few Maori old boys to agree to an arrangement in the back room whenever it suits their purposes. Tino Rangatiratanga enables iwi, hapu and whanau to exercise discretion and choice, the right of deliberation, the right of retraction as in the issuing of disclaimers and the right to control the process of defining what Maori environmental concepts and cultural practices mean in their localised situations.

Tino Rangatiratanga is supported in International Law by the principle of 'contra-preferentum' - that in areas of disagreement on the meaning and interpretation of the text of Treaties the benefit of the doubt shall be weighted in favour of the views and impressions of the persons who were invited to sign and against those who produced the document.

Certain rights were withheld from the Crown and some of these have direct and indirect implications for its performance in the area of waste-management and the environment.

- the right to make International Treaties.
- the right to unilaterally make any law or take any action which breaches or alters any aspect of the Treaty Contract without a full and proper reference to the iwi partners.
- the right to steal, claim, plunder, damage, sell or otherwise dispose of any asset which is covered by the Treaty.

Our concern is that absentee landlords and transient populations have no regard for environmental damage stemming from their plunder of iwi assets protected by the Treaty. This concern of Ngaati Kahungunu extends to the actions of owners in the local freezing industry together with other offshore investors and companies operating in this country. Activities like the granting of water rights or the right to discharge waste into water were never discussed, let alone sanctioned.

TREATY PRINCIPLES

The Crown was not given the right to assume any rights to itself not covered by the Treaty. These rights are for iwi to retain, delegate, transfer, dispense with or alter as they may see fit.

In this document treaty principles means the same as Treaty obligations, performance expectations, criteria and measures.

Government have developed a set of Principles for Crown Action in relation to the Treaty. Essentially these are working briefs and policy objectives for Government and should be seen as such.

Only the set of principles which has been compiled by the Waitangi Tribunal and the Court of Appeal have legal standing in Taiwi-Pakeha Courts.

Both sets of principles stress the active protection of the Maori people in the use of their lands, the environment and their taonga.

Copy-cat summaries and examples of these principles have been filtering into the various arms of state where tauwi agents and administrators at the various levels have become patent experts at writing and quoting Treaty hype in their organisational and strategic plans:

These interpretations are generally slanted to ease the achievement of tauwi objectives. There is a predisposition by tauwi to formulate them in a general manner so as to avoid their obligations as and when convenient.

Example:

"the such and such organisation agrees to abide by the principles of the Treaty of Waitangi".

Most tauwi state servants don't even know what they are meant to be abiding by and this whole aspect could be viewed as a form of 'tauwi cargo cult.'

TRIBAL VIEWS OF THE TREATY:

There is a need for state training in Treaty obligations, performance expectations, criteria and measures. This should be reflected fully in the mission, action and evaluation part of state agency plans.

In practice the Treaty is often used to progress the agenda of tauwi in areas where iwi and tauwi appear to share mutual goals. From an iwi stand-point the Treaty is viewed as an extremely tapu, binding and futuristic document. It is the resource and environmental management record of the past and present and the strategic mission statement for the future. The Treaty is a document which establishes performance criteria and measures for iwi and the Crown. It contains the marks of the chiefs. It has a life force or mauri and Awe of its own. It is a taniwha and a kehua.

Te Kooti and many others predicted the loss of the land, the rape and destruction of its resources, the subsequent loss of mana, and the loss of the language and other taonga by Treaty deceptions. Te Kooti saw this process as a cleansing and character building exercise for iwi - one which was necessary to prepare for the birth in future of a nation. He compared it to a journey through the desert. What is important is that no-one has been able to fool anyone as far as adherence to the Treaty is concerned. Our plea is that the Treaty should not be a grave revisited, **ana he karanga mate** where we have to continually go back and rectify the misbehaviour of tauwi.

Early speeches made by the chiefs in relation to the Treaty show that their predictions have subsequently proven to be correct in every detail.

The most important aspect of the Treaty in relation to the environment is that it sets a benchmark against which tauwi performance may be measured and will continue to be measured. In that respect it is a document which iwi can use to audit the Crown and its agents in terms of their environmental obligations under the Treaty.

Iwi may need to enlist independent scientific expertise to carry out these audits in the same way as the Crown brings in outside experts to audit its other functions.

The ancestor Toiroa predicted that there would be a time of great disturbance, sorrow and fear for the people. That the rising sun would knock the bear and the eagle from their perch. That during that time the Treaty would become the flag of this country, that Pakeha would one day swear allegiance to it. That it would protect the collective interest. That on that day a nation of one people would finally be born.

The ancestor Te Hapuku once remarked that the Treaty was like a frost fish, the food of chiefs. In order to capture its essence one had to rise early to beat the seagulls to the beach where it lay. Like the frost fish it had a fine silvery blue colour representing the maomao pattern of a moko, the mark of chiefs. Like the frost fish it had to be eaten with respect and digested carefully because it was filled with many sharp bones.

TANGATA WHENUA THE MAIN CATALYSTS FOR ENVIRONMENTAL CHANGE:

Tangata Whenua concerns in relation to pollution and waste management have been for New Zealand catalysts of change. The rulings of the Waitangi Tribunal and High Court have been the main vehicle for this change.

During March 1983 the Waitangi Tribunal ruled on the application of Aila Taylor on behalf of the Te Atiawa tribe concerning potential pollution of fishing grounds in the Waitara district. Te Atiawa people were concerned that a planned pipeline, at Motunui the mouth of the Waitara river, would pour sewage and industrial waste from synthetic fuel plants and Borthwicks meat works into coastal waters.

The Waitangi Tribunal heard evidence on Maori history, spiritual values, chemical toxins and environmental issues and ruled in support of the Maori interests.

It stated the Treaty of Waitangi obliges the Crown to protect Maori people in the use of their fishing grounds and to protect them in the consequences of the settlement in development of the land and to provide for legislative recognition of Maori fishing grounds and to confer upon the hapu most closely associated there with certain rights of control. This ruling set a precedent which has influenced all recent legislative documents. Significant also was an acceptance of a Maori definition of the word 'taonga'.

Te Atiawa testified that taonga meant all things treasured by their ancestors and included specifically the treasures of the forest and fisheries. The Muldoon Government accepted the ruling and the pipeline plan was abandoned.

This was a victory for Maori and their ancestral environment. In November, 1984 the Tribunal ruled in favour of Sir Charles Bennett and others in a claim on another pipeline intended to carry effluent from Rotorua into the Kaituna river. They told the Tribunal that dumping effluent into the Kaituna was objectionable on medical, social, spiritual and cultural grounds.

The key point was that the discharge of sewage into a river no matter how scientifically pure, was contrary to Maori cultural and spiritual values. The Tribunal's ruling meant that this pipeline was abandoned too.

In July, 1985 Nganeko Minhinnick on behalf of the Tainui people claimed Manukau Harbour had been despoiled by farm run off, sewage and industrial waste. Land had been seized illegally and other developments like the mining of ironsand at Maioro on the Waikato river infringed tribal rights.

Waitangi Tribunal rulings gave recommendations as to how past wrongs could be put right. The document makes recommendations to the Ministers for the Environment and Works Development in regard to Manukau. It contains some of the main examples of those Tribunal rulings which brought changes to the practices of waste management. The essential direction of these recommendations may be summarised by these words: 'Waste management systems and policy should be consistent to the principles of the Treaty of Waitangi.' Rulings of the Waitangi Tribunal were a significant influence in the development of new legislation to cater for aspects and concerns that existing legislation did not cover, address or provide for. Many of the Waitangi Tribunal's recommendations are encompassed within the newly developed Resource Management Act 1991.

The Waitangi Tribunal is currently under threat because of some of its rulings. It seems that when people don't like the way they look, they blame the mirror and want to change it. On major issues which Maori face, the Waitangi Tribunal is the only affordable means of access to justice. The dream is that oneday a similar organisation will be available to all in this country and that it will protect tauiwi as well as tangata whenua assets and values.

IWI GOAL:

In order to compensate for the poor delivery of the Crown in relation to Waitangi Tribunal rulings and equity in terms of legal funds, iwi would benefit from the appointment of an independent Treaty Commissioner and an effective Treaty Audit Unit. It goes without saying that the scope of any audits should extend to the environment and its management needs.

We have included some of the Acts which may impact on iwi planning in relation to the area of waste.

LEGISLATION RELEVANT TO WASTE TODAY:

ACT:	RESPONSIBILITY:
* Health Act 1956	Dept Health
* Dangerous Goods and Explosives Act 1957	Dept Labour
* Radiation Protection Act 1965	Dept Health
* Animal Remedies Act 1967	MAF
* Dangerous Goods Act 1974	Dept labour
* The Local Government Act 1974	Local Authorities
* Pesticides Act 1979	MAF

* Toxic Substances Act 1979	Dept Health
* Environment Act 1986	Min Environment
* The Resource Management Act 1991	Regional Councils (various)
* Hazardous Substances and New Organisms Bill Anticipated 1993.	Dept Health
* Transport Act 1962	Min of Transport
* Conservation Act	Dept Conservation
* International Waste	Ministry of External Relations and Trade.

It is important that iwi have a clear idea of how waste is viewed in a legal sense ie, beyond a knowledge of its environmental effects with which they are familiar.

A LEGAL DEFINITION OF WASTE COULD BE BASED ON THIS EXAMPLE:

- a. Any matter, which is solid, liquid, gaseous or radio active, which is discharged, emitted, or deposited in the environment in such a volume, consistency, or manner as to cause an alteration to the environment.
- b. Any discarded, rejected, unwanted, surplus or abandoned matter.
- c. Any otherwise discarded, rejected, abandoned, unwanted, or surplus matter intended for recycling, reprocessing, recovering, or purification, by separate operations from that which produced the matter.
- d. Any matter prescribed to be a waste. Source:
(the state of Victoria Environment Protection Industrial Waste Act 1985).

RECOMMENDATIONS TO FACILITATE EFFECTIVE IWI PARTICIPATION
IN WORKING WITHIN THE RESOURCE MANAGEMENT ACT

"Ma te ture le ture e patu"
Use legal means to achieve legal ends

Like the Waitangi Tribunal the Resource Management Act provides an important legal tool to enable iwi to influence resource management. This Act deals with the management of resources but circumvents the question of ownership of resources.

Iwi continue to question Crown assumptions in this respect. In the view of iwi this is the next level of theft by the 'pen' although the Crown will claim that the purpose of their Act is to promote the sustainable management of natural and physical resources in ways which meet their needs.

SUSTAINABLE MANAGEMENT:

The Resource management Act defines sustainable management as:

"managing the use, development, and protection of natural physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural well being, and for their health and safety while considering the needs of future generations."

In doing so management practices must safeguard the life supporting capacity of air, water, soil, and ecosystems".

At present Regional, District and City Councils must accommodate the interest of the Crown's Treaty partner, they must seek and resource effective participation by tangata whenua.

Shane Jones - the Manager of Maruwhenua (Ministry of Environment Secretariat) stated that "The Resource Management Act has many provisions that can be used imaginatively and innovatively to address Maori needs".

"that "Maori can 'exert' more control over how decision makers make decisions that may have an adverse impact on resources, which Maori either own or have a significant interest in".

There is a provision in the Resource Management Act to delegate functions to other bodies. This is an area iwi need to look at. One of the first iwi goals in this document applies to issuing consents. Iwi may not wish to tie themselves down in this sort of way and in other ways and in that situation they may wish to delegate these functions. If iwi decide to do that then they should ensure that monitoring and feedback systems are put in place to ensure proper management of the delegated function.

WHERE DO MAORI FEATURE IN THE RESOURCE MANAGEMENT ACT?:

This Act requires Regional and Territorial Authorities to have regard to iwi considerations or planning documents in their plans and policies.

There are three specific references to Maori interests in the Act which all people exercising functions and powers under the Act are obligated to take into account.

1. Clause 8 of the Resource Management Act relates to the The Treaty of Waitangi. This refers to the purpose of the Act in Clause 5. Clause 5 states that "all persons exercising functions and powers under it, in relation to managing the use, development and protection of natural and physical resources, shall take into account the principles of the Treaty of Waitangi (Te Tiriti O Waitangi)".
2. There is a duty to recognise and provide for the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, Wahi tapu and other Taonga (Section 6E). This section provides opportunities for iwi to prevent the dumping of waste on areas that may impact on wahi tapu this is reinforced in Section 189 on Heritage protection. These provisions should ensure that Maori interests in respect to the use and building on their land is accorded more than just token regard. In the past you could not build in a particular area unless a Council plan said that you could. The Act refers to alterations in this arrangement in many sections.
3. Councils have a duty in their plans and activities to have regard to Kaitiakitanga.

In developing their waste management plans, iwi will find the following sections of the Resource Management Act beneficial. In it specific areas relating to waste management responsibilities are:

- i. The Minister for the Environment
(Section - 25, 45, 55, 140, (2) 167, 188, 43, 24-42, 344-351,
(Hazards Control Commission)
- ii. Minister of Conservation
(Section 52, 64, 117-119, 151-165, 4)
- iii. Minister of Ma'ori Affairs (Section 189, 250, 254)
- iv. Minister of Justice (Section 247 +)
- v. Regional Councils (Section 30)
- vi. Territorial Authorities
City - District Councils (Section 31)
- vii. Planning Tribunals Part SI 247-298

PUNANGA TE AHI, PUNANGA TE TANGATA, PUNANGA TE WAO
the quality of embers is determined by the wood
the quality of a child by the nurturing
In the same way the clematis - mirrors the source,
quantifies the treatment and reflects the consequences

In the tribe the clematis was the symbol used by tohunga to indicate stages of maturity in learning in which people were expected to have a clear understanding of the principles of Te Ao Maori.

The basic principle for management in the Resource Management Act is that which enables consents to be approved or withheld for all activities associated with resource use. This consent needs to be obtained from the local authority or other agency.

RESOURCE AND WASTE CONSENTS:

In the case of waste consents these are required when:

- i. there are restrictions on the use of the land (Section 9)
- ii. where there are restrictions on use of coastal marine areas Section 12
- iii. when there are restrictions on certain uses of beds of lakes and rivers Section 13 or water Section 14
- iv. when there are restrictions on the discharge of contaminants into the environment Section 15
- v. when a regional or district plan prohibits any activity. There is an obligation for the applicant applying for the consent to **consult** with whoever may be effected by the activity.

CONSENSUS

Tau rourou taku rourou kia whai oranga tatou katoa
Your contribution and mine for the best result

Shane Jones from the Ministry of Environments Maori Secretariat Maruwhenua, stated that consultation for iwi under the Act can take two forms:-

A consent agency may talk with Tangata whenua specifically about someone else's proposal, or more generally about how it can help their development

These management practices should provide mechanisms for 'avoiding, remedying, or mitigating any adverse effects or activities in the environment'

He also states "one local authority that has taken the Treaty seriously is the Canterbury Regional Council". He quotes Dr Marairie Goodall who states that the good relationship built between Ngai Tahu and the Council is not due to the Act it is entirely, I think, because there were people of goodwill on both sides". The Council he says "chose of their own initiative to regard the Act as placing a statutory obligation on both the Regional Council and the tangata whenua to consult and respect each other in the spirit of partnership to arrive at reasonable decisions for the benefit of our whole community"

In his view effective consultation very much depends on people of goodwill, intelligence and knowledge on both sides.

SUSTAINABLE USE VERSUS SUSTAINABLE MANAGEMENT:

Iwi see sustainable management as a low priority objective as it is outlined in the Act. The tribe would like to see greater emphasis placed on the principle of sustainable use or sustainable development as opposed to sustainable management. This is a traditional concept which has proven to be effective in the past when the environment and its resources were viewed as part of an integrated whole. Iwi also need to question tauiwi on what they mean by 'sustainable'. Chances are they probably mean exploiting the resource out of existence by dividing it up and selling it off to the highest financial bidder. This concept is called raweke.

The advantage of the practice of sustainable development as compared to sustainable management is evident when one compares these same practices in various African National Parks. In Zimbabwe Wildlife numbers are more prolific where sustainable development practices are employed. This is the same reason there are so many sheep in New Zealand.

WASTE PREVENTION PRINCIPLES AND STRATEGIES:

This section on principles and strategies is included to assist iwi focus and develop their strategies for solutions in the area of waste management.

PRINCIPLE ONE:

RESTRAINT

Me tuha anake? Kohore! Me horo ano tetahi wahi.
Are we to spit all out in one go? No!
We must swallow some of it
Na Paraire Tomoana of Waipatu marae

This is a management method based on restricting those activities which could have negative long term effects on the environment as well as the lifestyle of whanau, hapu and iwi. In today's world this may translate into actions which prevent the production, use or disposal of waste containing substances whose properties cannot be rendered completely safe by treatment or disposal.

The principle of restraint, balance and harmony is inherent in the practice of Te Ao Maori and the principles of Urutengangana and Maungarongo ie, that tangata whenua are bound to act responsibly towards Rangī and Papa and their environmental offspring. For tangata whenua, the principle of Urutengangana confirms the view that the people saw themselves and their lifestyle as an extension and continuation of those founding principles which form and give meaning to the universe.

IWI GOAL:

To restrict behaviours and activities which adversely affect the environment.

ACTIONS:

By influencing and utilising legislation to achieve restraint

By educating people as to the environmental benefits of applying restraint.

By getting people to adopt a lifestyle in which they begin to choose environmentally friendly options as their first option.

A simple choice could be to select a vehicle with a catalytic converter that runs on lead free petrol and in doing so reduces the amount of lead and CO₂ emissions into the environment.

PRINCIPLE TWO

REDUCE:

Ahakoā iti he pounamu
Even a small amount of greenstone is precious

Reduction methods aim at producing the minimum products required, minimising the resource necessary to make a product and maximising the opportunity to re-use or recycle the material.

Eg. by applying precycling before material becomes waste, or minimising the production of waste at its point of origin. At this stage there should be a review of the production of substances which cannot be rendered non-hazardous to the environment or to people by treatment or existing disposal methods. In this case these substances should cease to be manufactured and suitable alternatives sought.

IWI GOAL:

To encourage sensible resource development and utilisation strategies based on waste-minimisation practices.

ACTIONS:

By encouraging treatment at source especially in regard to industrial and agricultural waste

PRINCIPLE THREE

RE-USE/ RECYCLING

He koha hoatu, he mea ka hoki mai

he ohaki tuku e kore e hoki mai

A gift given is a gift returned

A loved one farewelled forever will never return

Na Kahungunu on his father's non visit to Nukutaurua.

Recycling is defined as the re-use of a previously used product as a raw material for its original or associated purposes. Example: - material from a broken plastic bucket is re-used to make a new one.

In Hawke's Bay only a small percentage of recyclable products is actually being recycled, or transported out of the area for further processing and disposal.

For instance, oil is not being transported out of the area for recycling. There is one small scale refining operation in existence here, however because people are unaware of it most waste oil still ends up at local tips or in the sewer system.

Mobil oil garages act as a collection agency. One can only guess where it ends up being deposited, as it is too expensive to send to Auckland and there are no government or local body subsidies to encourage servicing agents to apply recycling practices. The position is similar throughout the area in relation to plastics.

There is insufficient financial incentive to entice plastic recyclers to collect plastic from within the district for processing externally. For financial reasons past efforts to recycle plastics locally have had a short term life. The nearest recycling collection agent operates from Otaki and at the moment it is only financially viable for this service to be of benefit to the southern sections of Ngati Kahungunu.

IWI GOAL:

To explore and assess alternatives in recycling.

ACTION:

By encouraging local authorities to provide recycling outlets.

The public need to be educated as to what types of recycling outlets exist and they should be encouraged to use them.

By encouraging industries to extract, purify, return and re-use water after treatment at source.

PRINCIPLE FOUR:

RECOVERY:

E mao ana kia ua, e ua ana kia mao
It clears up to rain, it rains to become fine

Recovery is defined as the practice of separating and extracting as much material and or energy from the waste stream as is possible with a view to putting it to further use. For example composting can produce heat or can be utilised as soil enrichner or conditioner. Iwi believe tauiwi attitudes to dumps need to be re-evaluated, and that landfill sites should be viewed as resource recovery units as opposed to permanent disposal mechanisms.

IWI GOAL:

To influence Councils to accommodate waste recovery practices.

To influence individual households toward composting practices and waste separation.

ACTION:

By working with Councils in developing a regional plan to coordinate and manage:

- i. composting activities so as to reduce costs and maximise environmental benefits.
- ii. composting outlets and collection systems where waste separation may be carried out.

When a Council is unable to manage its responsibilities these should be contracted out to private operators. If this is the option then there needs to be enforceable guidelines and controls.

PRINCIPLE FIVE:

RESIDUE MANAGEMENT

Tukuna te karaka ki te wai mo roake, ka whakamaoa
Soak the karaka berries in water for a long time to get rid
of the poisons before baking it for eating.

The principle of developing safe and effective strategies for the total management of residues once the waste stream has been reduced through each of the above stages.

Ideally the materials making up the residue will be minimal in volume and have no present use or value.

The priority for disposal of residues should be extra-environmental containment.

IWI GOAL:

To ensure that residual waste is treated and disposed of or stored in a manner which does not pose a threat to health and safety, the ecosystem and its inhabitants.

ACTION:

By advocating this policy at all levels of decision making.

PRINCIPLE SIX:

RESTORATION/ REGENERATION:
Whakahokia te taonga ki te taonga
Let whatever is precious be precious

The principle of restoration involves the process of returning the environment, a resource or material to a pre-existing state or natural condition.

This principle takes into consideration the need to return the mauri - life essence to a state of ora ie , alive and functional.

Natural regeneration is sometimes a consequence of the principle of restoration especially when it is applied to plant, animal, fish or insect species

IWI GOAL:

To identify activities and effects that limit restoration and regeneration of animal and plant habitat

ACTION:

By relocating or reconverting waste that impedes the restoration or regeneration of the environment.

TRADITIONAL HANDLING OF WASTE

Waste management in Pa (fortified) and kainga, (unfortified living sites) of Rongomaiwahine/Ngaati Kahungunu was organised so that waste associated with specific activities was handled and disposed of through a complex set of rules. These practices required separate disposal mechanisms and methods for each article.

For instance, bodily material was considered and treated separately from the waste associated with food preparation, unconsumed leftovers, mimi and tutae. There was no mixing of mimi and tutae with food scraps, hair or fingernails.

Example:

Te marere-o-te-toto o whare aitu (menstrual blood) was considered to be extremely hazardous to other people. The material was highly tapu and its disposal was a separate and private matter for women.

Amongst some hapu, bone, shell and stone flakes seemed to have been stored together where they could be located for conversion and re-use eg, as needles. Heretaunga pa and the Castle point area are examples of industrial pa where this practice occurred.

Shells were also laid on tracks for marking purposes in the same way as cats eyes are used to indicate lanes on modern highways. The shells provided traction and gave early warning to the kaitutae/guards of approaching parties.

One of the names for a site containing shells and bone was **Te Umu-aanganga**. Umu teretere was used to describe green or decomposing waste.

REDUCTIONISM:

Tauwiwi - Pakeha specialists and experts tend to work from nui to iti or from waho to roto ie, from the big/outside to the small/inside. This process of analysis by reductionism and extraction is the basis for specialisation and the award and recognition of qualifications within the Tauwiwi - Pakeha education system. The rationale is that an analysis of the component parts leads one to a greater understanding of the total. Tauwiwi - Pakeha use this process to analyse and develop approaches to the treatment of waste.

We believe that the technical categorisation of types of waste promotes tunnel vision and may be a barrier to a consideration of all impacting factors and influences. A summary of these categories is included in the hope that iwi waste management planners will have an understanding of the language used by tauwi technocrats to describe and define their waste products.

GLOSSARY OF WASTE TERMINOLOGY

In this document waste is material for which no immediate further use can be found and for which storage, disposal removal or treatment may be required. It is distinct from pollution which is a consequence of the mismanagement of waste.

Iwi need to make their own decisions based on their own investigations in relation to specific sites and treatment alternatives.

ORGANIC WASTE:

This is defined as putrifiable material from plant, animal or microbiological origin. Hawke's Bay is known as the fruit bowl of New Zealand and is also a region which has many industries which are involved in agriculture and horticulture. The cities of Napier and Hastings together with their satellite communities constitute the fourth largest urban community in New Zealand and collectively are one of the largest producers of organic waste in the country.

The geographic nature of Hawke's Bay and its delicate ecosystems presents a number of challenges to the task of producing solutions to the regions organic waste disposal systems.

Areas of land that are below sea level constitute problems for land based treatment options for Napier City. The large network of rivers and the extensive unconfined aquifer in Hawke's Bay further complicate options for solutions.

The Oamaranui Dump receives most of Hawke's Bay's waste. It was only designed for a 30 year life and has already exceeded its capacity. A recent initiative by the Regional Council has been the provision of \$ 20,000 to trial an organic waste composting venture.

The Napier City Council is also investigating setting up a composting venture next to the Redcliff transfer station.

There already exist individual efforts throughout the tribal area to develop composting of organic waste. These efforts need to be coordinated and subsidised. Problems with the disposal of organic and inorganic waste in areas throughout, the tribe have been made worse by the closure of local tips. For example, the recent closure of dumps at Nuhaka, Raupunga, Tikokino and Waimarama. Often the closure of official dumps presents a problem in itself resulting in the development of illegal and unofficial dump sites, as in Waimarama.

BODs (Biochemical Oxygen Demand):

The standards and views on the presence or levels of BODs vary in relation to marine outfalls and land disposal systems depending on who is paying the consultant. In our experience consultants end up justifying the position of the purchaser.

In Hawke's Bay, meat and other organic based trade wastes make up a significant part of the total BODs in waste water.

SUSPENDED SOLIDS

Taiwi science analyzes suspended solids on the basis of concentration, chemical composition, and discolouration of water.

That the content may include human body waste is not necessarily a consideration. Discolouration and the extent to which suspended solids affect ecosystems are a major concern for the tribe.

GROSS SOLIDS (Plastics, etc)

Gross solids are visually identifiable and can be separated from waste water by milliscreeing.

HAZARDOUS WASTE:

Hazardous Waste is defined as substances which pose a potential risk to the environment due to the quantity concentration and chemical characteristics of the material which requires disposal. Toxic substances fall into this category.

The Hawke's Bay Regional Council implemented a hazardous waste survey to gather information on the types and quantities of waste being produced and to find out where and how the waste is being disposed of. The survey clearly indicated that nearly all hazardous waste currently being produced in Napier and Hastings is ending up at local landfill sites.

TOXINS

The term toxins relates to poisons or harmful chemicals that threaten marine and terrestrial forms of life either through contact or through its impact on the food chain where accumulations occur.

Most waste treatment systems are limited in their influence on toxic materials. In some cases the materials are retained in sludge and this presents a long term environmental problem.

In the case of extremely dangerous toxic substances Fred King an explosives expert is employed by the Council to take them out to a landfill pit and explode them.

In the 1980's, concerns by the people of the Waiohiki area resulted in complaints to the District Council in regard to the impacts of mismanagement of waste on the quality of the waters of the Tutaekuri River.

The local people were concerned about the toxic leachate that was poisoning and discolouring the waters of the river. This pollution threatened traditional kaiawa, puna wai (wells) , and recreational facilities.

It further endangered the health of those who used the river for swimming. There were also concerns about habitat loss in the case of eels, fish, whitebait and ducks. This concern extended to it's potential to add to the pollution of adjoining coastal areas and kaimoana.

The site is adjacent to important Ngaati Kahungunu wahi tapu including significant historic pa sites. After a protracted dispute and public outcry the Council was forced to cease dumping toxic waste at this site and it has been reorganised as a Waste Transfer Station.

The Council was convinced of the need to extract and relocate a large proportion of toxic waste that had been indiscriminately dumped on the site over a long period.

Some toxic waste was taken to the new site at Omaramui. Some was irresponsibly taken by tanker and deposited in the sewer outfalls where it was subsequently pumped into the sea according to one of the truck drivers involved. This toxic dump at Redcliffe has been officially closed for a number of years. A recent inspection by Toro Waaka and Nigel Hadfield (Chairman of the Waiohiki Marae) revealed what appeared to be a recent dumping of a tar-like substance at the site. Also noticeable were pools of stagnant bubbling waste, a testament to the potential and actual long term environmental damage resulting from indiscriminate dumping practices.

IWI GOAL IN RELATION TO TOXINS:

To ensure that toxic waste at existing sites is closely monitored and contained or relocated to safe storage.

STRATEGIC ACTIONS:

To build up profiles of the contents of old sites and a knowledge of the potential hazards in order to evaluate the necessity for re-mining. Toxic waste may need to be relocated from old dump sites where the present position presents potential hazards to the environment having regard to the leaching process, methane releases, earthquakes and projected global warming.

To influence the establishment of regional centres for the collection of extremely dangerous substances which can then be transported for state of the art disposal at a national centre. This may be in the form of high-tech furnaces, high temperature and oxygen enriched incineration working in conjunction with appropriate air pollution control technologies. This will reduce air pollution and hazardous emissions arising from more conventional systems. Polycyclic, aromatic hydrocarbons, metals (zinc, lead mercury etc), dioxins and furans are toxic emissions and residues from current incineration. These are a cause of environmental concern.

To establish special storage sites until the development of new uses for the waste or the discovery of a new technology allows for its safe disposal.

HIERARCHY OF WASTE MANAGEMENT PRIORITIES:

Plans will also need to incorporate the new hierarchy of Waste Management priorities that is being promoted by the Ministry of the Environment.

The priorities are as follows:

HAZARDOUS EMISSIONS:

At present New Zealand has no standards for Air Quality governing mana te aorangi.

Hazardous emissions are defined as environmental pollutants that harm or have the cumulative effect of being harmful to life forms or property. Some examples are:

- industrial or mechanical emissions
- household emissions
- landfill emissions
- natural emissions (volcanic)
- animal emissions

As an example, landfill gas is a cocktail containing:

47.7	%	methane
47.7	%	carbon dioxide
3.7	%	nitrogen
0.8	%	oxygen
0.1	%	paraffin hydrocarbons
0.2	%	aromatic cyclic hydrocarbons
0.1	%	carbon monoxide
0.01	%	hydrogen sulphide.

It also includes trace compounds of vinyl chloride, benzene, tri-chloroethylene and methylene. In an unconfined state it is a threat to the diminishing ozone layer and a waste of a potentially useful energy resource.

In Holland 14 of the 70 landfill sites are harnessed to capitalise on landfill gas as an energy source. The gas is collected and supplied to gas distributors or it is burnt to generate electricity. The Dutch Government resources the Landfill Gas Advisory Centre and APELDOORN working in conjunction with private gas and waste disposal companies. In June 1992 a deal was struck between Regional Energy Utility EGD and waste processing company VAN to create the largest landfill gas recycling company in Europe. The 15 million tonnes of rubbish lying in the biggest Dutch landfill site at Wigger in the Northern Netherlands gives of 5000 cubic metres of gas every hour. This produces 1.5 megawatts of power that the gas generates in Wigsters Turbines. The Wigster site also supplies 600 cubic metres an hour of methane to the local gas utility.

IWI GOALS IN RELATION TO HAZARDOUS EMISSIONS:

To cease the wasteful and indiscriminate release of gas into the ozone layer.

ACTION:

By facilitating the enhancement of air quality in areas where it is degraded

By exploring the use of technologies aimed at isolating, harnessing and utilising gas emissions.

COMMENT:

Culturally harmful emissions such as those from crematoriums should not be released into the atmosphere. In Hastings, residents have complained about the black sooty like residue emanating from the crematorium and drifting into their houses.

IWI GOAL:

To end culturally offensive emissions.

ACTION:

By advocating for the installation of non - emission furnaces

Industrial, household and motor vehicle emissions which contribute to global warming need to be minimised by the use of environmentally efficient technologies. Regulations exist within the Resource Management Act to monitor and control environmentally damaging emissions.

IWI GOAL:

To ensure that the creation of hazardous waste is discouraged and that existing hazardous waste is stored or disposed of in ways which eliminate the threats to the environment.

IWI ACTION:

By advocating for the development of National Air Quality standards which meet the needs of the environment for enhancement.

PATHOGENIC BACTERIA AND VIRUSES (Micro-organisms)

These are particularly hazardous to iwi health considering that iwi prefer to eat kaimoana in a raw or partially cooked state. In Hawke's Bay the standard used to measure the health threatening aspects of polluted kaimoana has been to measure the coliform counts, in particular faecal coliforms. In this process other organisms such as salmonella have been identified as present and health threatening e.g. the cockles in the Ahuriri estuary.

In Tauranga paralytic shellfish disease was identified as being present in kaimoana. In Ngaati Kahungunu contaminated kaimoana has been suspected as being the source of food poisoning and other notifiable diseases in a number of cases. It was only in June 1992 that health authorities began to pay attention to Maori health risks stemming from eating kaimoana. Recently there was a case in which health authorities carried out tests on the Tangoio mussel beds (at the instigation of local Maori) and concluded that they were severely polluted and represented a significant danger to the health of local Maori. This has come about as a result of the recent appointment of a community health officer who has made a commitment to investigate health threats to Maori in Hawke's Bay. As the story unfolded through the press it became apparent that officers of the Council may have misled the Tribunal by stating that there was no danger of that particular mussel bed being polluted by the particular discharge. There is no way of knowing where the plume from the outfall will end up or what conditions influence dispersal.

It was also clear that the Health Department had not lodged an objection which took into account this aspect. A lot of investigatory work has come about from iwi involvements in the new Health Boards and other authorities and this work is a continuation of the efforts of individuals, whanau and hapu.

TREATMENTS:

The treatment of pathogenic diseases and viruses include chemical disinfection or disinfection through the natural processes of sunlight and time. Oxidation ponds enhance these processes.

New processes involving enhanced ultraviolet light provide an environmentally friendly method of disinfecting waste water. Faecal coliform (bacteria found in human and animal droppings) levels can be considerably reduced by this process. Artificial chemical disinfection as in the chlorination of water is not considered to be either environmentally or culturally appropriate as a treatment process.

FATS AND GREASES:

Fats and greases can have a detrimental impact on the environment if mismanaged. The presence of these in water and on the beach is offensive to iwi. They are also a natural vehicle for the transmission of disease. Grease and fat slicks are regularly sighted in Hawke's Bay. There have also been accumulations of fat and grease (formed into sand balls) on the beach at Haumoana Awatoto and Ahuriri.

Fats and Grease travel rapidly and for long distances under the influence of wind and surface currents, as does any floating material. Primary treatment and processing methods include millscreening, chemical treatment, dissolved air flotation and entrained air skimming processes. Fats and greases restrict soil absorption in land based treatment.

SOLID WASTE

For the purposes of this paper, solid waste is described as any solid material including waste containers and their contents which have been discarded or rejected. Landfills have been a convenient mechanism for the disposal of solid waste. Often there has been little thought given to the location or environmental impact of these dumps.

As a result, natural hollows and wetlands, old river beds and gullies have been favourite sites for dumps. These tend to be in the proximity of water courses that are then effected by the leaching of toxic substances that may be emitted from solid waste like old fridges, car motors, concrete, and chemical drums. Much of the solid waste is material which can be recycled or re-used.

There is however no national plan to make this operation a possibility and/or financially viable. Associated with solid waste are environmentally damaging liquid and gas waste like CFC's from dumped fridges and oil from discarded car engines.

Landfill gas emissions are predominantly methane and carbon dioxide (30%). This gas will continue to be released for several years after closure. Further controls may be necessary to prevent serious releases of gases, odours and the increased likelihood of explosions.

Management practices need to reduce the amount of water entering these sites as water contributes to the leachate problem. Other problems include illegal tipping and private unregistered tips which may be out of sight and difficult to monitor.

IWI GOAL:

That refuse disposal sites that do not comply with required standards be closed, and regional monitoring be established to eliminate continued illegal dumping.

NUTRIENTS:

Iwi have long recognised the damaging effects on the environment of introducing unnatural nutrients into water. They have noted that even small amounts of specific chemicals introduced to water can upset the habitat to the extent that life forms will move away and plant life may die off. This is one reason the practice of eating kaimoana in the water, on the beach, foreshore or river bank and the disposal of waste into all forms of water was forbidden by Tohunga Arai - resource and environmental managers.

Shellfish damaged in the process of removal from the rocks, sand and mud had to be collected and carted away from the beach. Broken feelers of crayfish had to be removed from crayfish holes. Iwi believe that damaged shellfish have the ability to communicate their distress to others of their species and that this could cause the shellfish to move from an area. For this reason pipi were dug by hand.

The placement of urupa (graveyards) along the foreshore was used to reinforce the non-eating of kaimoana on the beach and also the non-disposal of rubbish there.

In land disposal schemes, water runoff can cause nitrogen enrichment of neighbouring waterways.

In H.B the runoff of nutrients and chemicals due to intensive farming and unrestricted horticultural practices is a major contributor to this problem.

TRADE & INDUSTRIAL WASTE

Trade Waste is a term given to spent process water discharged from industry. Cities and Townships have storm-water drainage systems which are often connected into the sewer system and in times of heavy rainfall this may cause problems by putting additional pressure on the sewer system.

Trade waste is distinct from domestic and commercial sewerage.

The high organic strength of trade wastes have implications for treatment needs and methods, particularly those required to meet specified secondary effluent standards.

Iwi plans should scope existing requirements of councils for trade waste and they should encourage reduction and treatment at source.

LIQUID WASTE & WASTE WATER

The combined domestic sewage, trade waste and storm water are referred to as waste water or liquid waste.

In this document Liquid Waste has been defined as 'substances dissolved or suspended in water and or materials which are neither gaseous or solid'.

All water that flows into the plumbing system is known as domestic sewage.

Every household uses water for cooking, drinking, washing clothes, flushing the toilet, showering and bathing etc

This is made up of approximately:

- 20% associated with food preparation and washing dishes
- 25% for washing clothing
- 30% for toilet flushing
- 25% Showering and Bathing

Sewage contains, organic waste, suspended solids, toxic chemicals etc, but is essentially 99.9% water.

A significant concern of iwi in regard to waste water is that it is the vehicle for domestic sewage. In the Napier/Hastings area this water is discharged directly into the sea - in breach of the Treaty of Waitangi.

Early in 1991 Hastings District Council and Napier City Council heard submissions on concerns in regard to sewage out-falls. Ngaati Kahungunu was consistent in its arguments opposing waste being put into the sea.

A meeting was held with the Councils and public and it was considered desirable that a joint sewage committee be set up to seek options for the practical resolution of these concerns. It was resolved that the committee include council members, industrial interest groups, the iwi, the Department of Conservation and a representative from the Clean Sea Coalition.

The working party was set up to look at possibilities which might arise if all or part of the waste treatment and disposal facilities for the two cities were combined.

A consultant was engaged to undertake a study which took into consideration current waste water facilities in each city to determine whether all or part of an improved treatment system could be combined into one regional facility. This involved:

- 1) Outlining the current waste water treatment and disposal facilities in Napier and Hastings.
- 2) Determining from existing records the likely future waste water requirements and design parameters for the two cities.
- 3) A standard of desired effluent quality of BOD5 = 30g/cubic metre, suspended solids were set at 30g per cubic metre and faecal coliform at 200 per 100mg was to be achieved at the outlet of any new waste water treatment facility.

- 4) An evaluation of the following options for treating waste water from both local authorities. The possibility of staged construction of the options was to be considered and construction and operating costs were to be assessed for each stage.
 - a) Construction of a combined treatment plant with a new outfall as well as using one of the existing outfalls if at all practicable.
 - b) Construction of a combined treatment plant utilising the two existing out-fall pipelines.
 - c) Construction of separate treatment facilities with a combined sludge management and disposal facility.
 - d) Construction of separate treatment facilities with separate sludge disposal systems.
 - e) Construction of a combined system using disposal of effluent on land.
 - f) Emergency overflow provisions.
- 5) If it was found that a combined facility was favoured the following additional work was to be carried out.
 - a) Identify a potential site(s) where such a facility could be situated.
 - b) Prepare conceptual plan showing a possible plant layout and inter-connecting conveyance pipe work to existing facilities. Nominate stage construction options and treatment standards for each stage.
 - c) Identify a preferred method of sludge management and disposal.
 - d) Prepare estimated costs for plant construction operation and maintenance and sludge disposal.
 - e) Suggest fair means of apportioning the costs in (d) having regard to the difference in effluent quality and quantity from the two cities.
 - 6) Advise on the preferred option on economic and environmental grounds.

HISTORY OF TRIBAL PROTESTS ON WASTE POLLUTING WATER IN HAWKES BAY:

As far back as the 1870's there were complaints by Maori to the Crown agents in regard to environmental concerns.

Tareha of Ngaati Kahungunu complained of waste and fill being emptied into swamp verges in the Ahuriri Estuary. These complaints continued with the construction of a meat works at Ahuriri that dispersed its effluent into the inner harbour. Later, the Napier Hospital discharged its sewage in the same vicinity. This area was to become the out-fall area for the whole of Napier and because of the pollution and smell was named 'Perfume Point'. This pollution was a constant concern to the local hapu who were concerned for both spiritual and physical reasons. The pollution contaminated wahi tapu, fishing areas and shellfish gathering areas. By 1950 this pollution presented a health hazard and signs were erected on the Hardinge Road area warning people of the dangers of shellfish collection. The signs read "**Do not eat kaimoana from this area. It is polluted.**" Instead there should have been a sign for Pakeha also that read "**Do not pollute this Maori food source.**" By this time pollution had spread throughout the area from Tangoio to Cape Kidnappers. The establishment of the pulp mill at Whirinaki and the sewage outfalls at Awatoto and Haumoana had seriously impacted on kaimoana in the Bay. This resulted in protests in the early 1970s by Te Rina Sullivan Meads and the creation of the Wai-ora environmental movement which she spearheaded.

This protest was joined in the 1980's by a group of kaumatua which included Darkey Unahi. They were responsible for a petition in 1972 which received widespread support from freezing workers who relied on kaimoana as an essential part of their diet and livelihood during the off season. These concerns were given voice at the water classification Tribunal hearings in the late 1980s.

The Water Classification Tribunal was the first step towards improving water quality standards in Hawke's Bay. In this matter Ngati Kahungunu was supported by the Department of Conservation who considered that the court had treated Maori concerns in a somewhat cavalier manner. While acknowledging the sincerity of the Maori people's views relating to contamination of waters from which food is gathered or which is used for washing or swimming, the remainder of the evidence was disposed of in an offhand way.

The Tribunal refused in any way to wrestle with the legal argument which the iwi and the Department of Conservation advanced relating to the weight to be given to the Treaty of Waitangi in a case to be decided under the Water and Soil Conservation Act. His Honour Judge Tredwell marginalised the Treaty issue by considering it only one of many factors to be balanced against the rest. One significant outcome of this hearing was that the Tribunal reduced the size of S E zones and included an S.B zone. None of this compensates for the fact that the Planning Tribunal's rulings breached the principles of the Treaty despite statements by our Kaumatua that the Treaty was signed to ensure the protection of our Taonga.

TE OTANE RETI SUBMISSION

See over page for copy of a submission made by the late Te Otane Reti to the tribunal. This submission echoes the sentiments of similar submissions made by countless iwi representatives to tribunals throughout the country. Submissions are generally aimed at preventing tauwi from damaging the environment by adopting certain practices or particular solutions before they actually proceed to implement them. They warn tauwi of the consequences and likely effects of their actions on themselves and the way of life of tangata whenua. It is true to say that 90% of these submissions are ignored by tauwi and their Tribunals. It is also true to say that most of these submissions eventually turn out to be correct in every detail. The pollution of the waters of Hawke's Bay could have been avoided if so-called Pakeha experts had the decency to listen to what the elders said years ago, and continue to say to the present time. In one instance at Te Mahia, when invited to make a submission the tribe simply produced a copy of a submission that had been made forty plus years ago, changed the date on it and altered one word. The point is that there is a high level of consistency in what Maori are saying and will continue to say in all this. The problem is not what is said but what is heard. Pakeha may not be interested in addressing their weaknesses, failures and inabilities in resource management, the environment, economics, finance, education, science, health, technology, social development, welfare, law, prisons, infra-structure, planning, politics. The same thing would have occurred just before the fall of the Roman empire and the last ones to have been aware of it would have been the Romans. The Treaty of Waitangi makes tangata whenua the client. Guess who first learns the washing machine doesn't do what the maker said it was supposed to and guess who ends up being the victim of dirty linen? Te Otane Reti was one of our kaumatua who kept pointing this fact out to the chagrin of local tauwi. He has passed on but the bulb of his example continues to provide illumination to the generations which follow.

Submission:

NA TE OTANE RETI Q.S.M
KAUMATUA O TE TAIWHENUA O AHURIRI
TE WHANGANUI-A-OROTU ME NGAATI KAHUNGUNU

TE WAIRUA O TANGAROA KI TE IWI

KO KAHUNGUNU, TE TIPUNA, MAI I RONGOWHAKAATA, KI TE
WAIRARAPA. HE TANGATA HI IKA ,A, HE MAHI I NGA KAI O TANGAROA.

KO MATOU TENEI KO TE IWI E TAUTOKO NEI I TE KAUPAPA KUA
WHAKATAKOTOTIA NEI E TE TARI MO NGA RAHUI O TE MOANA, O TE
TUAWHENUA, O TE WAIORA HOKI. HE TAUTOKO WHANUI TENEI NA
MATOU KO NGATI KAHUNGUNU.

TE WAIRUA O TE WAI I HEKE MAI I NGA MAUNGA KI UTA RA, A, PUTA
NOA KI WAHO O TANGAROA. KA NOHO TENEI WAIRUA HEI WHANGAI I
NGA IKA ME ETEHI ATU O NGA KAI O TANGAROA. PENEI ANO HOKI I
NGA WAIRUA O NGA AWA WAI MAORI, NGA ROTO, NGA NGAHEREHERE
ME NGA RONGO MAORI. TE WAIRUA HEI TIAKI I TE TANGATA.
MA TANGAROA, HEI WHANGAI I TE TINANA. KA PUTA KA ORA.

KI TE TUKUNA NGA PARU ME NGA PAITINI KI ROTO I NGA AWA PUTA
NOA KI TE MOANA, KA NOHO HEI PATU I NGA KAI HEI WHAKAPAITINI,
E PANGIA AI TE TANGATA E TE MATE, HEMO NOA ATU

KOIA NEI TA MATOU WHAKAHEE E TE TARAI-PUNARA.
KA MUTU TONU NEI HOKI TE KAI MA MATOU KAORE HE UTU I TENEI
WA KORE NAHI. E WHAKAHE ANA MATOU O KAHUNGUNU, I RARO I TO
MATOU MANA O TE TIRITI O WAITANGI.

Na reira e te koroua, hoatu, haere. Haere ki te taha o Tangiora ma - waiho ma matou
te huru pango e katohia nga putiputi whakaaro, kaupapa nei hoki i whakatongia e
koe.

WATER RIGHTS FOR DISCHARGES (CONSENTS)

The recent Hawke's Bay Regional Council, Water Right discharge hearings 1991 resulted in recommendations to improve the water quality of outfalls. These hearings were held under the Soil and Conservation Act so little regard was given to Maori concerns. However the combined concerns of iwi, The New Zealand Underwater Association, Royal Forest and Bird Protection Society, Te Awanga Progressive Association, The Hawke's Bay Clean Sea Coalition, The Conservation Department, The Green Party of Hawke's Bay, Greenpeace New Zealand and concerned individuals represented a significant community force, whose concerns needed to be taken into account. A water right was granted to the Hastings District Council from March 13th, 1992 with a stipulation that the discharge must be of milliscreen standard by 1994. Ten year discharge rights were granted for the Hastings and District Councils with strict monitoring conditions. The terms of the right could be altered if they did not meet the as yet uncompleted Coastal plans. This is an incentive for Councils to be moving towards secondary sewage treatment in the long-term.

IWI GOAL:

Identify potential allies in the community. Some of these groups may be helpful at different stages and for different reasons. Iwi will find some Councillors and their key section managers are sympathetic to the Maori view.

Green Peace
Clean Sea Coalition
Department of Conservation
Forest and Bird
Historic Places
Fish and Game Councils.

ACTION:

Meet with potential allies and work towards achieving common goals. Planning Tribunals held under the Soil and Conservation Acts had no obligation to take into consideration Maori cultural values and subsequently Maori concerns in regard to pollution were in the main, ignored. This pattern continued until the demise of the Act in June 1991. Prior to the Resource Management Act the statutory requirements and procedures to get rid of waste involved several statutory groups each with its own set of administrative procedures. For example the Department of Health would supply subsidies.

Local and Regional Authorities would provide planning approval. The Ministry of Transport would administer the approvals for the construction of an out-fall and the Regional Water Boards issued water rights for the discharge of the effluent. An environmental impact report would also be required. If land was to be taken permanently for the installation of onshore facilities such as treatment plants, planning consents were required by way of a District Scheme plan change or specified departure under the Town and Country Planning Act. The Soil and Conservation Act 1967, the Harbour Board Acts 1950, the Health Act, the National Development Act 1979, the Town and Country Planning Act 1977, were all Acts that failed to take into account the environmental interests of Ngaati Kahungunu - Rongomaiwahine. Ngaati Kahungunu have in the main been totally ignored by legislation and Planning Tribunals, in its concerns regarding pollution of land, rivers, estuaries and kai moana areas. Traditional management practices have not been included nor are opportunities evident in council structures for effective partnership. Iwi also have the same level of difficulty working out which sections of the Pakeha hapu and tribes speak for which parts. It is more confusing when they themselves don't know either. I mean figuratively they all look like Asians to us as well.

CULTURAL CONCERNS:

Cultural concepts and practices for resource usage and management need to reconcile the relationship between iwi, Te Whaiao (world of the living), Kaitiakitanga, Mana Aoterangi, Mana Moana, Mana Whenua, Mana Tuatara, Mana Tangata, Mauri-ora, Mauri-mate, Wairua tapu, Rangatiratanga whakaitiiti, and Te Rae o te Tiriti-o-Waitangi as linked resource management functions and responsibilities. Individual iwi and hapu need to determine what place these terms and values will have in their plans.

Waste is of grave concern to iwi in the tribal rohe. Waste is and has been dumped in areas where it has caused serious cultural and contextual damage and affront through the desecration of waahi tapu, traditional kaiawa, kaimoana and other mahinga kai of local hapu. Waste also results in a downgrading of amenity values and a degrading of property values and export potential. Often dumping areas are situated near rivers, artesian springs, or subterranean reservoirs. These conditions can be found in every part of our tribal district. In many ways the situation here is parallel to that suffered by the European states under the communist colonial regime in Russia. We list the names of these places for posterity.

- Mahia,
- Nuhaka

- Wairoa
- Raupunga
- Oamaru
- Redcliffe
- Haumoana
- Waimarama
- Omahu
- Waipukurau
- Poranghau
- Dannevirke
- Pahiatua
- Taihape
- Masterton
- Carterton etc.

In Dannevirke both the local dump and the town sewage ponds are on land directly behind the Makirikiri marae. This land was taken from the local hapu under protest. Further insult was added when it was realised what use was intended for the land which was taken. There was a total disregard for cultural values and the marae, just as there was no consideration given to the proximity of the Tamaki stream into which overflows, runoff and leachates would go. The pollution of this stream has far reaching impacts as the waters end up in the Manawatu river and flow to the west coast. This illustrates how pollution occurring in one tribal area may have serious consequences in another and this is an unacceptable breach of our inter-tribal etiquette. As a people we often wonder why tauiwi dump their rubbish in our places. Are we not a people? Is it significant that the land is ours? Do we not deserve respect or consideration? Is it okay to violate what is precious to us in this way and if not then why continue to do it?

IWI GOAL IN RELATION TO CULTURAL CONCERNS:

To ensure that due consideration is given to maori cultural values that wahi tapu are sacrosanct and mahinga kai are protected from all forms of waste and to ensure the location of new sites do not pose cultural or environmental threats.

ACTION:

By getting the Council to relocate the sewage ponds and dump to a site which is acceptable to iwi or at least to where the responsibility for the risk is shared.

POLLUTION:

Pollution is the end result of the mismanagement of waste. With regard to waste management the first practical principle is that no pollution is acceptable. These are some mismanaged activities which contribute to pollution in Hawke's Bay:

- a. A lack of sound environment awareness education programmes to prevent it happening in the first place.
 - b. Indiscriminate emissions
 - c. Discharges of contaminants into water through:
 - i. pipelines
 - ii. wash down areas for industry, vehicles and slipways for boats.
 - d. Indiscriminate dumping e.g. the emptying of toilets and rubbish from camper vans into the nearest patch of bush. How can we enjoy barefooted the marvels of the forests of Taane Mahuta when we have to watch where we put our feet.
 - e. Disposal of ballast waste from ships
 - f. Accidental spills eg, Oil
 - g. Failure of local bodies to provide adequate disposal facilities.
 - h. Lack of facilities that enable re-use and recycling practices of materials
 - i. Lack of suitable provision for the storage or transport of toxic materials
 - j. Lack of alternative waste disposal options
 - k. Natural hazards
 - l. Lack of government finance for research, education, and training.
- Other tribal areas may need to consider issues like mining, marine farming, dairy farming, tourists using the creeks for mimi and tutae etc.

IWI GOAL:

That "*Polluter pays policies*" be aimed at discouraging and eliminating environmentally damaging practices, as opposed to a system of a "*sale of rights*" based on levies minimal fines and other forms of payment which enable the polluter to purchase rights to pollute.

In the Hawke's Bay area councils have attempted to address waste water problems on an adhoc basis. By and large Napier City Council seems prepared to approach this issue more responsibly than the Hastings District Council, although it has a long way to go towards satisfying iwi expectations. The Napier City Council allocated funding for research which resulted in a Primary Treatment Milliscreening Station.

Hastings District Council continues to discharge untreated sewage through its outlets. Iwi and public pressure capitalised on the local body elections in 1989 to pressurize candidates into declaring their stance on sewage treatment. This was an effective tactic which resulted in candidates making this issue a part of their election platform. Some candidates including both mayors became involved in a pre-election march organised by the Clean Sea Coalition.

With the election of the Councils there was an obligation to appear to fulfil their election promises on waste and to date this has been the limit of action in real terms.

JOINT SEWAGE WORKING PARTY IN NAPIER HASTINGS: EXERCISE IN COMMUNITY PRESSURE

A meeting was held by Councillors and the Community in 1990 to progress this issue. It was agreed to integrate the needs of the Hawke's Bay district with the establishment of a joint sewage treatment working party (J.S.W.P). As a result of receiving public submissions it was decided to include, along with Members of each of the constituent Councils representatives of the Public sector. This working party included one representative from the Maori community, D.O.C. and the Clean Sea Coalition. Industrial users and Councils had majority representation. A request for additional Maori representation was declined on two occasions.

The JSWP has no authority other than the ability to expend a small operating budget on engaging consultants whose investigations would form the basis of recommendations to each of the Councils in relation to sewage treatment.

The general theme of public submissions to the JSWP was that continuation of the discharge of partially treated waste water to Hawke's Bay is unacceptable and that secondary treatment or its equivalent was the minimum acceptable standard prior to the discharge into marine waters.

The working party elected to demand that any treatment facility constructed produce an effluent quality no worse than 20mg/m³ SS, 30g/m³ BOD, and 200 FC/100mls.

The iwi stance was that any water discharges had to be of a healthy and drinkable standard.

After agreeing on a Consultant's brief, advertisements resulted in interest being registered from 20 Consultancy firms. These were scrutinized and reduced to a short list of six Consultants from whom full proposals were received. These proposals were formally presented to the JSWP who evaluated them, and awarded the final commission to Beca-Steven of Christchurch.

The Consultant's Report was presented to the JSWP in November 1991.

This presentation scoped all the options in term of sites, technologies, systems, and treatment within the confines of the brief. The presentation was centred on the discharge of waste water into the sea. Following consideration of the Beca-Steven Report an approach was received from a Land Treatment Consortium who felt that Land Treatment had been given inadequate consideration.

They sought permission to present a submission to the JSWP and did so in February 1992. Both reports were analysed by a review panel, which had technical expertise to determine the practical viability of the proposition taking into consideration the parameters of the brief. The committee was selected by Councillors. Iwi expertise was not sought as usual.

The terms of reference included comment on the:

a) Beca-Steven Report in these respects

- i) Comment on the effluent standard set in the brief
- ii) Comment on the treatment system, flow and loading assumptions
- iii) Response to land disposal options
- iv) Examine whether cost estimates were realistic (trade-offs)

b) Land Treatment Consortium

- i) Evaluate compliance with new draft Health Department guidelines in respect to buffer zones, treatment standards, odours
- ii) Evaluate cost and revenue assumptions used
- iii) Evaluate whether land valuations are realistic
- iv) Provide comment on assumed odour rates based on the limited available soil knowledge, the need for additional drainage works, and whether the effects on the adjoining properties or waterways had been properly accounted for.
- v) Set out planning time scales for land acquisition and resource consents.

THE REVIEW PANEL

The approach of the review panel was to convince the JSWP that they had checked every eventuality including the fact that the proposals were sufficiently soundly based to warrant further study.

The conclusion of the review panel was that the Land Disposal Consultancy report was not soundly based technically, that the cost estimates were under-estimated and that there was a serious risk that it could not be implemented.

It was considered that aspects of the land disposal scheme were viable. Problems identified were:-

- a) Locations of specific sites - the land near the Airport required the operation of pumps to keep it free of water.

This factor presented dangers of the likelihood of discharges into the estuary due to the water table being too shallow - the amount of land needed had been in the view of the panel grossly under estimated. They considered the proposition on the returns from growing trees on this land for both transpiration and fuel lots as being of limited benefit. It also highlighted the prospect of major social disruption and the fact it would utilise over 3,000 hectares of land.

IWI REVIEW OF THE JOINT SEWAGE WORKING PARTY:

The panel was dominated by white males keen to protect their preserve. Efforts to persuade them to have a Maori representative from Napier and Hastings were resisted. Despite this, the rules were bent to include two industrialists.

The panel did include members who were sympathetic to iwi concerns, however they were too few to be effective.

The initial brief for the consultants was centred on standards, treatment systems and disposal options with Maori cultural values having a low priority.

- * 'Perceptions of Maori concerns were limited to, eating mussels.'
- * In the land based treatment discussions the issue of lands under Treaty claim was voiced but not regarded as relevant to the brief.

- * There was value in having iwi participation on the JSWP in that it did provide a voice inside the tauwi system. The iwi presence also added weight to views by individuals and groups who had similar values and goals.

COMMENT ON BECA - STEVEN REPORT

Beca-Steven stated that there was not enough suitable land available to be used for land based treatment in this area.

It was agreed through discussion with J.S.W.P that the standards imposed on Beca-Stevens for marine discharge were not realistic if these standards were transferred to filtration in wood lot areas, or other land based areas.

It was noted that this issue needed to be addressed because standards from the proposed D.O.C coastal policy statement indicated there would be no sewage going into the sea within ten years.

Discussion considered Department of Health guidelines in regard to the possible risks of micro-organisms from sprays used in land based treatment. It was stated that problems perceived in the past from the spray of sewage were no longer a critical consideration by the Health Department and that it was possible to minimise this problem by creating reasonable buffer zones around the area.

The reports were referred to the Territorial Councils and the issue was progressed at that level. It is ironic that the bodies responsible for the present debacle are being relied on to investigate, evaluate and promote responsible waste management practices given their record to date. It seems that for iwi very little has changed. The words of Renata Kawepo are still the words.

"Koia a Makarini te haunga o te kino e tu ana ki te karo i aia ano"
Mr. McLean himself the author of all evil stands there himself to investigate it. Renata Kawepo 1861. Ngaati Upokoiri

INTERIM REPORT OF THE JOINT SEWAGE WORKING PARTY ON SEWAGE TREATMENT OPTIONS FOR NAPIER AND HASTINGS CITIES.

These are the conclusions recently released to the media by the JSWP.

- * Napier and Hastings should plan for separate sewage systems. The cost difference between a joint system and a separate system were minimal with the separate system costing an estimated \$158 million - \$1 million less than the joint system.
- * That both Councils continue to work together on common problems including treatment standards, funding, development staging, common purchasing of equipment and solutions for the end treatment of waste products.

The disposal of sludge will be an ongoing responsibility and this could cause problems.

The Mayor of Napier stated that cost would be a major consideration in the final selection of a treatment option. One of the industrial representatives on the panel expressed the wish that 'treatment standards be relaxed to provide a system which the community could afford.' The other stated that if the costs were too high several existing industries would no longer be viable. On the other hand the Clean Sea Coalition representative stated that 'standards should not be compromised because of costs.' Napier City Council has since committed approximately a million dollars towards a future secondary treatment plant as part of its continuum of progress towards more effective treatment.

INLAND DISPOSAL OF SEWAGE:

In inland parts of Hawke's Bay the discharge is passed into rivers or streams either directly or as runoff from sewage ponds and septic tanks.

In the outlying centres sewage disposal presents problems in terms of its mismanagement. For example, in the Ongaonga township the reliance on septic tanks has threatened the drinking water of the town's inhabitants. This is the result of a clay pan that restricts absorption and directs the movement of contaminated water to areas where drinking water is taken from artesian wells.

PA IN RURAL AREAS

A significant problem for Maori pa is that Councils have neglected to develop waste, plans which address the particular need of pa in rural areas. Instead they have tended to limit or restrict Maori from building in the vicinity of their marae.

Where building has been permitted, the communities face problems in terms of coordinating waste flows. The Pakeha law which results in multiply owned Maori land places limits on the development of an integrated approach to the coordination of waste treatment.

Such is the case in Te Hauke and Omahu.

In the case of Porangahau, the overflow from the town's sewer system is discharged directly into the water of the Porangahau River. Here it combines with leachate from the local dump to pose a real health threat to people, plant life, animal and micro-biological organisms.

Local hapu are concerned that this pollution will effect their eels, whitebait, flounders, and estuary. A similar practice occurs in relation to the dump at Mahia which is sighted on a burial ground close to an estuary which is the source of the famous Oraka pipi. The contents of septic tanks from local houses have been emptied onto the tip and this exacerbates the problem.

There has also been industrial discharges into the Ahuriri estuary in Napier. This estuary is used for public recreation purposes. Local Maori are now no longer able to exercise their right safely to take cockles, flounders, sole and parore from it.

Estuaries are the nurseries of much of our oceanic fisheries. Unless they are protected fish stocks and/or their condition will be further diminished.

Hawke's Bay Regional Council has under the Resource Management Act notified all bodies discharging sewage of the need to apply for consent for such discharges. This process enables iwi or other groups to object to such consents being given.

Ngati Kere, a hapu of Porangahau have lodged an objection to the renewal of the local consent for discharge outlining their concerns in the process.

The pollution of water is widespread in the tribal area as indeed it is throughout the entire country.

At Awatoto tauwi milliscreening removes peas, plastics, nappies tampons etc and turns tutae into torohi, however it does not remove the cultural offence, health risk and environmental destruction associated with discharging sewage into the sea. Torohi is basically runny tutae. Iwi will no doubt get to meet the torohi man in their particular area - the experience is like shaking hands with the grave digger!

IWI PLANS IN RELATION TO DOMESTIC SEWAGE:

The iwi and local hapu need to end the practice of discharging waste into the sea in Hawke's Bay and indeed the whole Pakeha practice of discharging it into water. In relation to the treatment of domestic sewage, iwi plans need to consider:-

1. Tribal beliefs, values and practices.
2. Iwi Health considerations.
3. Strategies to counter economic arguments which detract from sound environmental management obligations.

Cost factors are often used by councillors as a justification for pursuing minimal options such as milliscreening. This is short term financial cost. In the end it is inevitable that it will cost far more to sort out these tauwi problems. Iwi need to remember that these problems have resulted from the continued failure of Tauwi-Pakeha to plan and provide for the impacts and effects of their own urban growth and development. In Hawke's Bay some level of criticism needs to be directed at the tauwi method of prioritising on expenditure e.g, concrete sheep in Hastings.

4. Known treatment technologies for land or water.
5. Community and social impacts including considerations of locations - eg, proximity to housing, water ways, wahi tapu, other historic places and valued sites.
6. Environmental Issues

Iwi plans should focus on desired environmental outcomes and take into consideration Habitat loss, Wildlife Values, Visual Impacts, Turbidity, Mahinga Maitaitai, Soil and Water Contamination, Sediment Accumulation beyond the site, Noise, Odours and other forms of emission.

7. Recreational Pursuits - Swimming, Fishing, Diving, Surfing, etc....
8. Integrated Management with Territorial Authorities.

The eight points listed above should be developed having regard to legal and statutory requirements.

CONSULTATION:

Hokia ki nga maunga kia purearea ai koe e nga hau o
Tawhirimatea.

A sobering experience - return to the mountain to feel the cold blast
of the winds of Tawhirimatea

As stated in the Parliamentary Commissioners booklet 'Proposed Guidelines for Local Authority Consultation with Tangata Whenua' (pg20) the Crown and its delegated authorities are bound to accommodate tangata whenua concerns.

'They are not just another Interest Group but have special status by virtue of their long standing prior inhabitation of the area, the Treaty of Waitangi and the principles of the Treaty, and as provided for in the Resource Management Act and other legislation.'

In short tangata whenua have a priority of interest over the public.

'Consulting involves the statement of a proposal not yet finally decided upon, listening to what others have to say considering their responses and then deciding what will be done' (Mr. Justice McGechan). He also noted that consultation should be a reality not a charade and would involve some of these things:

- i. the provision of sufficient information to the consulted party so they can make intelligent and informed decisions.
- ii. sufficient time for both the participation of the consulted party and the consideration of the advice given.

iii. genuine consideration of that advice, including an open mind and a willingness to change.

The issue of giving iwi sufficient information, time, and genuine consideration are serious issues which need to be addressed by councils. Councils are still setting timeframes which even they cannot meet - regardless of their wealth of resources. This has been the case with the recent annual plan of the Hawke's Bay Regional Council, yet the council still expects iwi and community groups to furnish evidence for hearings within these timeframes as has been the case with the Hastings District Council emergency outflow. Iwi are disadvantaged by the deliberate setting of unrealistic timeframes and a lack of resources.

IWI VIEWS ON THE CONSULTATION PROCESS AND POSITION:

For iwi the choice is to consult or negotiate. The iwi position is that they consult with hapu and whanau but negotiate with their Treaty Partners and their seconds or agents.

Maungarongo describes the process of consultation. Maunga is a hill or hilltop pa. Rongo is to listen. When the people of the pa begin to listen to one another as opposed to speaking at one another then the likelihood of successful outcomes is increased.

Iwi have a number of options for developing their position on consultation.

Tino Rangatiratanga - sole agency.

Tauutuutu - equal partnership

Taurekareka or fiduciary partnership based on the concept of senior and junior partners

Lasting solutions to problems in waste management depend on efficiencies in the cross - cultural relationship at local and regional level. Iwi need to be familiar with the legislation and the background information to issues on the agenda. Delegates will end up participating as furniture if they are not familiar with the information available to their pakeha counterparts.

- i. Iwi should not be put off by arguments that they can rely on Councillors to inform them where appropriate. Iwi should not be put in a position where they have to rely on Councillors for explanations of the Act. To do so is to put their tino rangatiratanga at the mercy of the Councils or Councillors interpretations and into a situation where they can and are often deliberately misled.

Councillors are also incompetent in terms of their ability to understand and subsequently reflect a tangata whenua dimension. As an example of this we have a local female Councillor who went and sat on the speakers seats at a local marae supposedly to assert her pakeha rights as a women. What she didn't know was that that seat is a symbolical representation of the male toilet and that is why it is called "te paepae hamuti". Hamuti is our word for rotten or stink.

Councillors are also on a rapid learning curve and cannot be relied on to know all the facts. The Resource Management Act is complex and even Councillors have difficulty understanding it.

In the absence of sufficient information, training and time, Iwi may argue that the Council has failed to consult fully or to take into account the principles of the Treaty. For this reason, Councils should supply Iwi representatives with copies of the Resource Management Act as a forerunner to training.

UNDERSTANDING GROUP PROCESSES AND TAUWI GROUP DYNAMICS.

This section may be especially useful for Iwi representatives on joint committees which may be established to deal with specific issues through a consultative process.

FORMING - TAURA WHAKAHERE

In this phase people are generally involved in finding out where they fit in the group, what roles they might take, or hijack and what they are supposed to be doing. During this phase people tend to share a little about their background and to ask questions of others. This is the time when people also find out what the limits and boundaries of the project are.

STORMING - KO AU HEI PIRIMIA

This stage involves competition for positions in the group. It may be done overtly or covertly and can be difficult to recognize. This phase may be called **ngau tuara** - back biting. People put one another down to others behind their backs. During the storming phase people may attack, withdraw or assert themselves. They may try to set up a group of followers within the group or absent themselves physically or emotionally from the business of the meeting and from others of the group. They may try to dominate in their efforts to ensure that their needs are met. This phase might also be described as one of rebellion against the leader. It is a time when people explore and test the limits of what is possible, and is usually an uncomfortable phase for the group.

NORMING - MAHIA KIA PENEI

People have tested each other and the leader out. The group has managed to contain any conflict and work it through. In this phase the group usually begins to look at the ground rules or ways of functioning (norms) which will guide their collective behaviour toward effective performance. People may begin to suggest important roles for themselves and one another and they will begin to take responsibility for facets of a project.

PERFORMING - TE WHAKATUTUKI

There are two types of performance. In the first one people may continue to try to attract attention by marginal behaviours and language or veiled threats. In the second group members are cooperating with one another to achieve the goals of the group and to meet each others needs and expectations. Members begin to support and nurture one another.

MOURNING - WHETURANGHIA

In this phase the group is close to achieving its goal. This phase is often characterized by a loosening of the bonds between people and a fall off in attempts to influence the group. During this phase there may be an increased tendency for group members to exclude themselves from the business of the group or to miss meetings.

SCORING - TAETAE KAMURAMURA

The goal has been achieved, the group now has no need to continue. This is a time of self-adulation and celebration. Members congratulate others in the hope of getting some praise and recognition for themselves. Those in the know refer to this stage as attention seeking or mana gobbling.

POINTS TO WATCH FOR :

- i. If iwi allow it, their participation will be marginalised, trivialised, or used to justify the fact that they were involved in a decision they may not have agreed to.

If iwi are not convinced by an argument, they should ensure that their objection is registered. Iwi may exercise the right to reserve their decision and to consult with hapu. In this situation they should ask for the decision to be deferred.

- ii. Identify alternative opportunities and options. For instance conservation management strategies could be shaped by iwi and community groups on the matter of future waste restrictions.

The New Zealand coastal policy statement in its draft form presents an opportunity for iwi to influence policy in the area of coastal management. The coastal policy will guide councils in their planning and decision making. It is imperative that iwi draft submissions to incorporate tangata whenua priorities. The statements in the draft are not as strong on the issue of waste as they could be. It is up to iwi to ensure no waste enters the waterways and oceans. A panel will collate the concerns of all submissions for consideration. In doing so regard will need to be given to the principles of the Treaty of Waitangi.

HISTORY OF IWI CONSULTATION WITH HAWKE'S BAY REGIONAL COUNCIL:

Shaun Patrick Kerin's report for the Parliamentary Commissioner for the Environment 1991 contains valuable insights into the process of consultation or non-consultation between iwi and Local and Territorial Authorities. Our research confirms the general direction of his findings. These are included in this document for your consideration and further analysis and review.

His report stated that it was significant that the Hawke's Bay Regional Council's first draft Corporate Plan was prepared for 1990 the significance of this year being that it marked the 150th anniversary of the signing of the Treaty of Waitangi.

Given this fact Shaun Kerin had assumed that it was reasonable to expect that the Council was aware of its responsibilities as an Agent of the Crown in regard to the Treaty but was surprised to find that this had not been the case. In fact he discovered that the draft Corporate Plan had been put together without reference to the Treaty of Waitangi and indeed without any consultation with local Maori.

He states that Ngaati Kahungunu were alarmed by this and demanded that the Hawke's Bay Regional Council amend their structure to include a Maori Standing Committee.

(Ngati Kahungunu 1990 submission to HBRC draft Corporate Plan).

In this respect Ngaati Kahungunu stated:

"The Treaty of Waitangi provides a framework for Maori and non-Maori participation in New Zealand society. It articulates a formula for the allocation of resources and power. In order for those terms to be met, Maori participation has to conform to the Kaupapa of Tino Rangatiratanga guaranteed in Article II of the Treaty. Any process of iwi representation must be decided by the iwi."

Ngaati Kahungunu stated that Maori Advisory Committees, as offered under legislation proposed by the Labour Government would do nothing except undermine and subsume the concept of Tino Rangatiratanga.

'The name Maori Advisory Committee confines the committee to providing advice only and implies a position of inferiority and impotence in local government, whereas the Treaty of Waitangi guarantees to the iwi effective participation. Anything less than this contravenes the terms of that document.'

In June 1990 the Hawke's Bay Regional Council arranged a meeting with Ngati Kahungunu to discuss Council-Iwi consultation. It was at this meeting that the Regional Council acknowledged that the establishment of the consultative process between the Council and the iwi had been slow.

The Regional Council stated that it saw the Corporate Plan as an opportune time to examine the Maori Advisory Committee proposal in recognition of the importance of the issue and in spite of the proposed legislation.

Kaumatua voiced their 'anger that the corporate plan had been developed without any consultation with Maoridom' and protested that 'it did not include any specific section on the Council's commitment to Maori aspirations, concerns and specifics on its consultative process with the Maori community' (HBRC minutes 21 June 1990).

Many Maori present knew little of what had gone on before, others resented their not being informed about or involved with the decision-making process.

Council stated they were concerned over the ability to establish a Consultative Group that truly represented the Maori community of the Hawke's Bay Region.

Shaun Kerins had been told on several occasions by Councillors and Council staff that it was a bit of a problem to get the iwi to decide who their representatives should be.

The Council did not understand iwi politics and viewed the multiple voices of the iwi as a barrier to gaining consensus.

Shaun Kerins goes on to say that the Council appeared to have no understanding that for iwi to enter into an unequal relationship such as this simply drained them of their mana, limited time and resources.

It placed pressure on the iwi to educate the dominant culture at the expense of educating their own people, who are denied equal participation within the system of the dominant culture.

The decision from this meeting was to proceed with a Maori Standing Committee. The iwi stated that the purpose of the Maori Standing Committee was to 'facilitate meaningful dialogue between the Iwi Authority (Te Runanganui o Ngaati Kahungunu) and the Hawke's Bay Regional Council, and to advise the Council on how to give practical effect to the Treaty of Waitangi.

The Runanganui accepted the proposal of setting up a Maori Standing Committee, but stated that they saw it only as a transitional mechanism leading to Te Tino Rangatiratanga with its main role being to explore avenues of communication which would facilitate the return of confiscated lands and the establishment of rightful ownership of resources.

The Maori Standing Committee consisted of 12 members of the Runanganui representing the four Taiwhenua of the Runanganui ie, Te Wairoa, Te Whanganui-a-Orotu, Heretaunga and Tamatea. Ngaati Rongomaiwahine, Rangitaane, Tuwharetoa, Tuhoë and other tribes sharing in the tribal territory are not represented.

The three remaining Committee members were Regional Councillors, consisting of the Chairman of the Regional Council, the Chairman of the Planning and Policy Standing Committee and the Chairman of the Operations Standing Committee on Local Government.

HAWKES BAY REGIONAL COUNCIL FINANCIAL PROVISIONS IN THE AREA OF WASTE - MANAGEMENT

Iwi need to obtain copies of the corporate plans of regional and territorial authorities to see what resource priorities and allocations have been set aside for use in the area of waste management. This example is enclosed for viewing and comment. Source: Draft Annual Plan 1992/93

GOAL

The Goal of the Hawke's Bay Regional Council is to prepare plans for the coordination and promotion of the sustainable management of the Hawke's Bay Region's natural physical resources.

The immediate comment is that Maori social and cultural values have been excluded from the vision for the Region. This means that Maori have been effectively rendered invisible.

WASTE MANAGEMENT PLANNING:

In the area of waste management planning the goal is to continue preparation of a Regional Waste Management Plan for public notification at budgeted cost of \$67,267.00.

IWI RESOURCE MANAGEMENT:

To support the development of a resource management strategy for the tangata whenua of the region the Regional Council initially set aside a budget of \$28,976.

This has been increased to \$30,000.00 at the urging of Runanganui and that figure is still below what Runanganui would expect in order to carry out the task fully given the size of the area and the number of hapu. The work is being done by Bill Hodges with a supporting team and at the time of writing he is in the process of consulting with iwi hapu.

REGIONAL REFUSE DISPOSAL SITES:

To continue investigations into water quality and report on the potential for problems at all existing refuse disposal sites within the Region. Cost \$154,460 .

WATER QUALITY:

To investigate the water quality of ground and surface water throughout the Region in accordance with the programme. Cost \$63,040

ORGANIC COMPOSTING TRIAL:

To support a local composting trial by MAF Levin Research Centre and determine the outcomes of the trial. Cost \$25,990.

THE STANDING COMMITTEES BUDGET AS A MEASURE OF REGIONAL COUNCIL COMMITMENT TO IWI ISSUES.

Regional and Territorial Authority budgets are often an indication of the extent of the commitment of those bodies towards establishing the infrastructure and mechanisms for consultation.

On the 20 August 1990 the Regional Council's Corporate Affairs Committee agreed to the setting up of a Maori 'Standing Committee' and set aside \$10,000 to cover the cost of its meetings.

The cost of each meeting was estimated by the Council's Treasurer to be approximately \$2,500 per meeting, based on meeting and travelling expenses for those attending.

The number of meetings would be restricted to the budget therefore allowing the committee to meet on only four occasions a year. By contrast, other Council Standing Committees meet monthly. The result of the imposition of such an inadequate budget was that in November 1990, after only four meetings, members of the Committee had to decide whether to continue to meet monthly (even if not remunerated) or to postpone further meetings (on exhaustion of the budget) until the 1991-1992 budget was made available in June 1991.

An effect of this was that the committee was prevented from fulfilling its proper functions. Its function was limited to providing advice only.

Despite the 1990-1991 budget of the Maori Standing Committee being so low and quickly exhausted, the Regional Council did not increase the Committee's 1991-1992 budget.

The figure remained at \$10,000, with the Maori Standing Committee being limited to meeting every second month. The allocation of only \$10,000 to the Maori Standing Committee clearly reflects the Regional Council's treatment of Maori as a minority rather than the Crown's Treaty partner.

HOW THE MAORI STANDING COMMITTEE DIFFERS FROM OTHER COUNCIL STANDING COMMITTEES

The Maori Standing Committee differs from other Council Standing Committees on two levels. First, the majority of its members (12) are appointed not elected. For the Committee this means that only the three elected members of the Maori Standing Committee can have any power within Regional Council meetings.

No other Council Standing Committee has such a low ratio of members who have access to Regional Council meetings.

Of Council's four other Standing Committees, three have fourteen members all of them Regional Councillors and the fourth, the Regulatory Standing Committee, has five members, again all Regional Councillors.

The second level on which the Standing Committee differs from the remaining committees is that the elected members to the Committee are all Pakeha. This creates a unique situation for the elected members have the task of acting as cultural advocates for Ngaati Kahungunu within full meetings of the Regional Council.

The Maori Standing Committee as a consultative system and process operates on the premise that the Pakeha members of the Committee, when advocating for Maori within the structure of regional government, will perform their dual role with objectivity. Our view is that this situation is symptomatic of a lack of trust, of fear and immaturity.

PAKEHA GATE-KEEPING STRATEGIES

During the course of Shaun Kerin's research he came across data which indicated that the present system utilised by the Regional Council to negotiate with Ngaati Kahungunu was seriously flawed in that it failed to consider the wider social, political and cultural context which shapes Council - iwi relations.

He went on to say that it allowed the Pakeha members of the Maori Standing Committee to act as gate-keepers to Maori participation within the structure of regional government.

For Maori take - results and issues, to gain entry into regional government they have to pass through the Pakeha members. We would add that this process has a similar result to the biological process of break down associated with the passage of food through the body in the natural cause of events.

Under the system, Maori are effectively marginalised in Regional Government decision making processes, allowing the dominant culture to continue to plunder Maori resources whilst inhibiting the growth of Maori communities.

Such a situation exists in the rohe (district) of Ngaati Pahauwera, a hapu of Ngati Kahungunu, with the exploitation by tauiwi of iwi shingle resources from the Mohaka river.

SELECTION:

Some Regional Councils select Maori representatives and where this happens there is a danger of Pakeha selecting colonised robots and clones who will most effectively reflect their own values and perceptions. The truth may be the opposite of what Pakeha want to hear but in the long run it will prevent them having to double back and sort out related problems in future. Where this happens there is a danger of the council being exposed to insider trading by iwi. By that we mean that those who form the inner circle of iwi may use these positions to subject and influence pakeha power processes for their own personal gain in the same way as their Pakeha colleagues do and indeed in concert with it. Maori representatives may be elected in the same way as Pakeha. These people may not be able to translate and transcribe the value systems of one world into those of another. They may be called on to keep the two distinctly separate and in doing so to operate as conflict managers and facilitators.

In all of this the main thread is public/iwi scrutiny of the decisions, the processes from which they are derived and the results.

There would seem to be a need for iwi to be able to monitor the quality of their representation and that might begin with iwi consulting internally and setting tasks and performance criteria for their representatives in the first instance and then refining these through negotiations with the authority in question.

It would seem sensible for iwi to have a mix of representatives.

- Conceptualisers.
- Influencers/negotiators, persuasive people.
- Documentors - writers.

SUMMARY OF GOALS FOR IWI IN THE DEVELOPMENT OF WASTE MANAGEMENT PLANS

Goals for iwi in the development of waste management plans could have regard to the following. These could be based on spiritual, cultural, environmental, sustenance, and commercial considerations. Goals may also be organised by Taha wairua, hinengaro, whanaunga, tinana.

i. **Quality of Life:**

to ensure that the effect on the quality of life of iwi and hapu and the environment upon which they depend for kaiawa and kaimoana is protected from hazardous substances and that activities which give rise to pollution are minimised.

to provide an enhanced quality of life, both for individuals and the community as a whole;

to enhance collective prosperity;

ii. **Protection**

to protect the health and safety of people;

to protect the environment;

to protect property;

iii. **Social, Spiritual and Cultural**

to provide for the needs of future generations;

to meet obligations under the Treaty of Waitangi;

to recognise and provide for the relationship of Maori with the environment;

to avoid social and mental stress;

iv. **Behaviour**

to ensure justice and equity;

to ensure individual and collective freedom;

to promote trust and ethical behaviour;

v. **Mechanisms**

to adopt approaches to management of the environment which recognise the interdependence of all its parts

to prevent rather than cure problems, as a general rule and to enable the sustainable use of resources.

vi. **Systems/Controls**

to ensure that the level of controls for waste is in keeping with the risks posed by those wastes.

vii. Separation of responsibilities

To identify responsibility for the management of wastes which are appropriate to the level of community interest and consistent with the risks posed by the wastes.

viii. Tracking systems:

To implement a tracking system for certain hazardous substances

To improve control and prevent illegal discharges.

The Public awareness on waste issues has generated a genuine regard for waste prevention and environmental restoration. Support for educational and other initiatives is important for promoting attitudinal change to reduce the effects of activities which contribute to unnecessary waste. This is consistent with the iwi waste-management principles suggested in this document:

- ie, restraint
 reduction
 re-use
 re-cycle
 recover
 residues
 restoration and regeneration.

**EDUCATION AND TRAINING IN WASTE MANAGEMENT PRACTICES
AND STRATEGIES.**

There is a need for iwi to develop units of learning on Cultural Capital in regard to environmental knowledge and practice. This also involves the development of core-generic tangata whenua environmental skills and performance standards.

DIMENSIONS:

These principles are in keeping with a holistic view of the environment and its many facets, aspects and levels:

taha wairua
taha hinengaro
taha whanau
taha tinana

TECHNOLOGIES:

Iwi need to familiarise themselves with a basic understanding of practical technologies and cost factors in the treatment of waste to improve their contribution in the selection of treatment options. Only land based systems of waste treatment are culturally appropriate to iwi. As such there is no need to understand the technology of disposal into water unless it results in potable water. The priority for iwi is to determine the result they want and get Councils to achieve it. Technologies do exist to achieve what iwi require.

SOLUTIONS A COST ON COMMUNITY:

What Councils need to do is re-prioritise the spending of their budgets. If this involves members of the public having to re-prioritise their income and expenditure to accommodate the costs, so be it.

The world can survive without the odd micro-wave or sports stadium but it cannot survive in the absence of sound environmental practices of which waste-management is an essential part.

THE PAST PRESENT AND FUTURE:

This section is a timeline and analysis of progress or the lack of it made during the last one hundred and fifty years. It is based on the phases of the creation from periods of nothingness through to the formation, birth and growth. Basically what it is saying is that there is a long way to go yet in the development of the human relationship. It is understood that the state of the environment reflects the state of the human relationship in this country. When that part is put right it will then be possible to put the environment right.

TE KORE HAHANI - THE VOID:

1. In the beginning there was no structure or way of ensuring that Maori had input to Taiwi planning processes.

TE AITANGA I TE PO - MAKING THE CHILD:

2. Advisory and Standing committees were created and this is the current position.

TE PO KI MUA A WHIWHIA - THE PERIOD BEFORE THE BIRTH

3. In this period, hopefully the Resource Management Act will see permanent Maori units created within local authority structures and these need to be answerable to Maori in the first instance.

TE WHAIAO - THE SEEKING FOR THE LIGHT:

4. In this period, hopefully there will be equal representation in the management side and in terms of the priority given to the environmental values of both.

CONCLUSION

This document is about hope, coping and a future. Koiane na - Tino Rangatiratanga is like those words for 'sorry' and 'thank you' which don't exist. That's because they are ways of believing, feeling, thinking and acting not talking or legislating.

Kia ora ana!

KARAKIA WHAKAMOEMITI:

He honore, he kororia ki te Atua, he maungarongo ki runga te whenua, me te whakaaro pai ki nga tangata katoa ano hoki.

E te Tomairangi i hanatu maua i runga i te huarahi a te Ao.

I reira kitea ai te pahuretanga o to wairua a runga i te kare o nga wai.

A ka rongongia te Tihe! te Mauri-ora!

I unuhia maua ki te rito o te harakeke i taheke mai te waiora a Tane.

I reira tutaki ai te wahine purotu me tana tane purotu - e rua ana raua ko te tau e.

Na i muri mai ka tonoa maua te rae ki te rae, te ihu ki te ihu, te ito ki te whenua a ka whakahoronuku a rangi.

A ka haere tika tonu ki te wai whakata o Tutamure kia tohia ai ma wai te marae a waho na.

E ko te hau , ma te tika, ma te pono, me te aroha.

Na reira e te Tomairangi hurihia tau aroaro ki o mokopuna, ki o morehu toenga, ki nga tarutaru, nga otaota, me nga rakau, ano hoki nga mea ngokingoki o te tuawhenua o te moana, ki nga ika, manu, kirehe, kararehe. Kia hua ratou, kia tini, kia kapi katoa te Ao.

Koia te whakaari - Korou noa, korou ora!

"II"

NIWA

Taihoru Nukurangi

**Sedimentation effects of a proposed
hydro-dam on the Mohaka River near
Kakariki**

NIWA Client Report: CHC2006-119
March 2007

NIWA Project: MEL06506

This is the exhibit marked "II" referred to in the affidavit of Toro Edward Waaka
affirmed at NAPIER this 7th day of FEBRUARY 2014

before me Signature [Signature]
A Solicitor of the High Court of New Zealand / Justice of the Peace

Hilton R Verry
Solicitor
Napier

Sedimentation effects of a proposed hydro-dam on the Mohaka River near Kakariki

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A McKerchar

Prepared for

Meridian Energy Ltd

NIWA Client Report: CHC2006-119
Draft: August 2006
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Appendix 1: Bed material sampling in lower Mohaka River, November 2005

Appendix 2: Suspended sediment flood sampling for particle size

Reviewed by:



Maurice Duncan

Approved for release by:



Don Jellyman

Executive Summary

Meridian Energy Ltd is investigating the feasibility of a hydro-power scheme on the Mohaka River, with a proposed dam near Kakariki, 20.5 km upstream from the coast. This report assesses the potential sedimentation effects within the reservoir, in the river downstream (i.e., the lower river), at the river mouth, and on the adjacent coast. Key issues identified from preliminary investigations included the impacts on gravel extraction from the lower Mohaka River and possible effects on the form and stability of the river mouth and coast. The investigation included field inspections of the catchment, river, and coast, textural and compositional analysis of river bed-material samples, suspended sediment sampling during a flood for particle size determination, and various desktop analyses.

The current river carries an average suspended load of ~ 1 million tonnes per year (Mt/yr) past the proposed damsite. Annual suspended loads have varied from ~ 0.2 Mt to 2.8 Mt. The suspended load comprises ~ 20% clay, 61% silt, and 19% sand. The bedload comprises ~ 15% sand and 85% gravel, with 93% of the gravel being greywacke. This gravel is sourced mainly from the tectonically-disturbed greywacke/argillite terrain of the middle catchment. It is typically delivered to the river channel from hillslope sources during large rainstorms and after earthquakes, and is subsequently routed downstream by floods and large freshes. The catchment has a history of rock-falls that have periodically interrupted the delivery of gravel to the lower river and have formed gravel storage zones. As a consequence of these supply, storage, and transfer events, bedload delivery to the lower river is highly variable. Currently, the delivery appears to be waning.

The Mohaka is a principal source of high-quality greywacke gravel for the central East Coast region. There are several extraction sites where access permits, but the largest extraction has occurred from sites downstream of Raupunga. Total extraction rates from the river averaged ~ 32,000 m³/yr from 1963-1995, but since 2000 have averaged ~ 23,000 m³/yr. The reduced take partly reflects a waning re-supply to the extraction beaches from upstream and partly a market-driven preference for the older, more clay rich gravels found in Pleistocene terrace deposits. A 1995 assessment by the Hawke's Bay Regional Council (HBRC) recommended that an extraction rate up to 65,000 m³/yr should be sustainable from the river downstream of Raupunga. Recent information provided by HBRC indicated that the extraction limit was now 40,000 m³/yr. Bedload transport calculations suggest that the current average annual bedload flux past Raupunga is in the range 14-24,000 m³/yr, but the river has the capacity to transport 78-164,000 m³/yr on average. The current bedload flux figures are consistent with declining bed levels recorded at the Raupunga flow gauging section and the declining availability reported by the major extracting company.

The Mohaka River enters the ocean through a small lagoon behind a sandy gravel beach ridge. At times the outlet channel migrates up to ~ 1 km to east or west of the valley centre line. The estuary is small and shallow and is floored with sandy gravel. The mouth appears to have held this form for at

leas the past century. The river's bedload drifts mainly eastward along the coast. What remains after abrasion has worn most of the gravel down to granule and sand size is stored in the broad beach barrier at Wairoa and in beach ridges further east towards Mahia. There is generally only a thin, patchy wedge of beach overlying the wave-cut Papa mudstone platform in front of the high unstable Papa cliffs to east and west of the Mohaka mouth. This beach appears to be too small to provide much protection to the cliff toes against wave attack.

A dam built as proposed near Kakariki would initially trap sediment at a rate of ~ 0.5 million cubic metres per year (Mm^3/yr) [DM11]. It could be substantially full of sediment after ~ 100 years but the reservoir likely would not return to fully riverine conditions for ~ 200 years. Left alone, a sandy gravel delta would form first in the Willow Flat area, and would slowly advance down the lake.

Downstream from the dam, the river would generally flush its bed material from most areas, leaving exposed bedrock, although this condition would take several decades to develop. A stable cobbly armour layer would remain in patches. In this form, the river would resemble bedrock reaches of its own channel as found upstream. After about 200 years, this process would reverse as the river began naturally bypassing bedload past the dam.

40-50 years would likely pass before any effects appeared at the mouth. Thereafter, the mouth would likely evolve slowly towards a more sandy system similar to the mouth of the nearby Waikari River, with a wider, shallow outlet channel, and a lower beach. A sandy mouth system would tend to be less stable in form, and the backshore may be more prone to wave attack. The estuary would be deeper and would extend further upstream.

No significant impact is expected for the steep shore to the east and west of the river mouth, since these are already fronted by a spindly beach ineffective at protecting against storm wave attack. Eastward at Wairoa, after ~ 80 years there may begin to be a reduction in the width of the beach barrier, as the deficit in Mohaka bedload is absorbed by the storage there. However, the Wairoa barrier is not expected to disappear or even lose its protective function since the storage there is estimated as the equivalent of over 1000 years of Mohaka bedload supply once an allowance is made for abrasion of the Mohaka sediment by littoral processes.

Possible mitigation measures to continue servicing the gravel demand include shifting the extraction site to the delta that would form near Willow Flat. An alternative would involve barging gravel down the reservoir from the delta, tipping the gravel over the dam to the riverbank downstream, where some could be taken for aggregate and the rest returned to the river. Possibly, both the inflowing suspended load and bedload could be routed through the reservoir during natural floods if there was a low-level tunnel at the dam and there was adequate warning before floods to draw-down the reservoir enough to restore riverine conditions.

Should the Kakariki Dam proposal proceed to the next stage, then the following more-detailed investigations are recommended:

- numerical modelling of the reservoir sedimentation to provide a more reliable estimate of the reservoir life, delta form and advance rates, and possible operations to assist sediment bypassing under partial or full reservoir draw-down conditions during natural flood events
- numerical modelling to verify the predictions and time-frame of the channel bed response downstream of the dam, including investigations of the thickness of gravel overlying bedrock
- refinement of the coastal sediment budget of northern Hawke Bay, including a more detailed analysis of beach sediment storage, longshore transport potential, abrasion, and longshore sorting.

1. Introduction

1.1. Background and aims

Meridian Energy Ltd is investigating the feasibility of a hydro-power scheme on the Mohaka River. The proposed damsite is near Kakariki, 20.5 km upstream from the coast and 7 km upstream from Raupunga. The dam would be around 40 m high, forming a reservoir that would extend some 15.7 km up a gorge to near Willow Flat and would have an initial storage volume of approximately 50 million m³. Sedimentation effects within the reservoir and downstream may impact the scheme's feasibility. This report addresses these potential effects and assesses their significance.

A preliminary scoping study completed on 5 September 2005, and subsequent discussions, identified two main issues: aggregate (i.e. gravel) supplies and coastal and river mouth stability. These are the main focus of the current investigation, although other potential sediment issues are also assessed.

1.2. Study tasks

The study tasks involved:

1. Site reconnaissance and information search
 - Aerial, boat, and ground inspection of catchment overall and key reaches of channel, notably downstream of the damsite
 - Collection of bed-material samples from 4 sites between Willow Flat and coast
 - Visit to HBRC in Napier to gather information on coast, river mouth and gravel extraction
 - Visit to gravel-extraction contractors
2. Aggregate supplies
 - Characterisation of river bed-material (size and composition) by reconnaissance field sampling
 - Location and analysis of any historical cross-section surveys – to assess bed stability
 - Establish gravel budget for the lower river
 - Review of regional aggregate take, needs and sources, and character of desired aggregate – to match supply and demand

3. Coastal and river mouth stability

- Desktop research of literature on coastal stability, sediment budgets, transport pathways, river mouth change
- Visit to HBRC to locate reports and discuss with staff
- Review historical form and changes of mouth from aerial photographs
- Discussion of mouth significance with biologists.

2. Methods

2.1. Field inspections

Field inspections were undertaken in November 2005 and February 2006. In November 2005, the Mohaka catchment was inspected by helicopter and the river between Kakariki and the mouth was inspected by jet-boat. In February 2006, the Mohaka Mouth area was inspected, as was the mouths of the Waikari, Waihua and Wairoa Rivers and the coast as far east as Whakaki.

2.2. Bed-material sampling

In November 2005, bulk bed material samples were collected and surface sediment size measurements were made at two sites along the Mohaka River downstream of Kakariki Stream. The bulk sampling sites were located on a bar by the shingle works some 3 km downstream from the SH2 Bridge at Raupunga and from a bar beside the shingle extraction area approximately 1 km upstream from the coast. The samples were collected from gravel bars exposed at low flows in the river. Bed surface measurements were made at these two sites and also at the proposed damsite at Kakariki.

The bulk sampling involved removing the bed surface layer of cobbles, then extracting a sample of mass at least equal to 100 times the mass of the largest cobble observed on the surface. The sample was field-sieved at square-root of 2 ($\sqrt{2}$) intervals down to 32 mm. The sub-32 mm fraction was weighed then sub-sampled by splitting for further laboratory sieving, again at $\sqrt{2}$ intervals. A lithology count was done on each size fraction in the gravel range, counting every grain where there were fewer than ~ 100 grains or counting an appropriately sized split containing at least 100 grains.

At each sampling site, the bed surface size grading was measured using the 'Wolman' pebble count approach (Wolman, 1954). At least 100 grains were counted at each site. Each grain was classified by lithology.

The bed-material sampling results are detailed in Appendix 1.

2.3. Suspended sediment sampling

Suspended sediment sampling was undertaken during a ~ 10-year recurrence interval flood over 30 April – 2nd May. The aim was to assess the overall size grading of the suspended load carried during the event. Six multi-vertical, depth integrated suspended sediment gaugings were undertaken by the NIWA, Napier field team, following standard techniques (Hicks and Fenwick, 1993). The Equal-Width-Increment (EWI) sampling approach was used, collecting samples from 11 equally-spaced verticals using the same transit-rate at each vertical. A D49 sampler was used with a 3.2 mm diameter nozzle. Each gauging was duplicated, with one set of samples bulked for analysis of suspended sediment concentration and the other set bulked and analysed for particle size distribution. The field sampling and laboratory analysis are detailed in Appendix 2.

3. The existing river

3.1. Catchment terrain, geology, and landuse

The Mohaka River drains from the central ranges of the North Island into northern Hawke Bay south of Wairoa. It has a large central drainage basin that connects to the coast through a relatively narrow corridor. Its catchment area is ~ 2470 km². The catchment has a mixed geology and is tectonically active, resulting in some contrasting topographical terrains and varying sources of river gravel.

The headwaters are cut into steep Mesozoic greywacke terrain. These steeplands typically have a thin mantle of tephra deposited from eruptions of the Taupo Volcanic Centre, but the western ends of the main tributary valleys are in-filled with thick but dissected pumice deposits that merge with the Rangitaiki Plains. Ignimbrites (welded deposits from hot ash flows sourced from the west) have in-filled parts of the upper Waipunga and Oamaru valleys. These are the source of the hard ‘hangi stones’ that are found along the Mohaka course.

The greywacke country is generally covered in native forest. As it collects runoff from its western tributaries, the mainstem Mohaka flows northeast along the Mohaka Fault Zone. This generally separates the western greywacke country from a seaward-tilted sequence of Tertiary marine sediments on the eastern side.

The Tertiary sediments comprise limestones, sandstones, siltstones, and mudstones ('Papa'). They tend also to be capped by tephra, and form steep to rolling hill country that slopes down eastward to the coast. The limestones, particularly, cropping out on the eastern side of the main basin form very steep slopes. Northeast from the Te Hoe confluence, the river cuts south-eastward to the coast through the Tertiary Terrain. Flights of terraces (younging downwards) show that the coastal leg of the river has, over the past several million years, been entrenching. The river has been entrenching as the land has risen tectonically, with the rate of down-cutting varying also due to sea-level changes associated with Pleistocene glacial cycles. Some of the terraces contain Pleistocene-age deposits of river gravels (conglomerates). These differ from the modern riverbed gravels by having more rust-red clay matrix, a consequence of age and weathering – hence their local description as 'red metal'. The younger, lower terraces have deposits of pumice and ash from the Taupo eruptions (the last being 1850 years before present). The Tertiary country tends to be used for exotic forestry plantation or extensive grazing. The alluvial terraces in the Raupunga-coast area are often used for horticulture.

More detailed descriptions of the catchment and its geology can be found in Grindley (1960) and HBCB (1986).

3.2. River flows

3.2.1. Flow records

There are two active flow recording stations in the Mohaka catchment: Mohaka at Raupunga (site 21801, catchment area 2370 km², opened 28/2/1957) and Mohaka at Glenfalls (site 21803, catchment area 997 km², opened 2/3/1961). Both are operated by NIWA. A recorder was operated at Willow Flat between 31/10/1980 and 3/7/1984 (site 21812, catchment area 2220 km²). The catchment area upstream of Raupunga is only slightly larger than the catchment area upstream of the proposed M20.5 damsite at Kakariki (2330 km²), hence Raupunga should be a good index of water and suspended sediment inflows to the hydro-reservoir.

3.2.2. Flow regime at Raupunga

At Raupunga, for the period 1957-2005 inclusive, the flow averaged 78.7 m³/s and ranged between 0.9 m³/s and 2203 m³/s (on 15 March 1985). Monthly mean flows vary seasonally, with higher than average flows in June through October. A flood-

frequency analysis from this record (Table 1) indicated a mean annual flood of 830 m³/s and a 100 year flood of 2080 m³/s.

Table 1: Flood estimates and 95 percent confidence limits for the Mohaka River at Raupunga (Site number 21801) using flood data for 1957-2006.

Annual exceedence probability	T	Q (m ³ /s)	95% CL (%)
0.50	2	763	12
0.43	2.33	830	11
0.20	5	1120	12
0.10	10	1350	13
0.05	20	1580	15
0.02	50	1870	16
0.01	100	2080	17
0.005	200	2300	18
0.002	500	2590	18
0.001	1000	2800	19
0.0001	10000	3520	20

The largest historical flood appears to have been that of April 1938. The peak flow for that flood is assessed as 3500 m³/s. The probable maximum flood has been estimated at 12,900 m³/s. Floods show a distinct seasonal pattern, with higher floods more likely in winter months (June/July/August) and least likely in late spring and summer (October through February).

3.3. River profile and gradient

Figure 1 shows the mainstem river's longitudinal profile between SH5 and the coast. To a large degree it reflects the geologic setting. The reach along the Mohaka Fault Zone (37 – 67 km upstream from coast) is steepest overall, and forms a staircase of lower gradient alluvial gravel-bed 'treads' separated by steep, boulder-bed or bedrock steps. Many of these steps were formed by rockfalls, probably most associated with earthquakes. The rockfalls created lakes that have since disappeared, partly by breaching as the outflow cut into the rockfall dam, partly due to sediment infilling. Gravel wedges have prograded down to the rockfalls at a gradient sufficient to convey the gravel from upstream past the rockfall. There would appear to be a number of such rockfalls and gravel storage zones of various ages. The most recent example is the 85 m thick Te Hoe Rockfall on the Te Hoe River, several km upstream of the Mohaka confluence. This occurred during the 1931 earthquake and lasted until the flood of 1938.

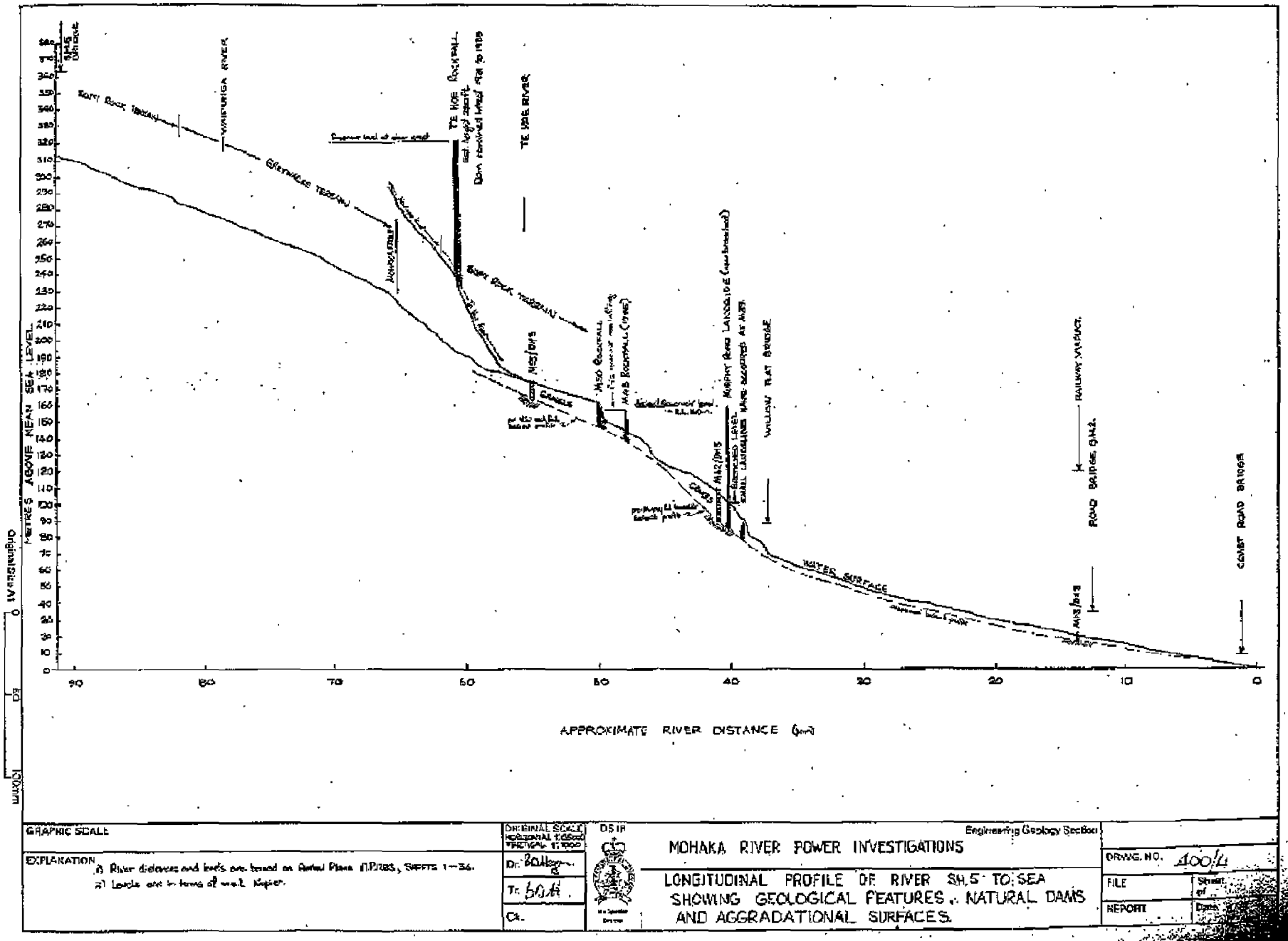


Figure 1 Longitudinal profile of the Mohaka River prepared for hydro-power investigations in 1987 by DSIR Geological Survey

These rockfalls and their associated lakes create long-term transients in the transfer of gravel down the Mohaka channel – the reaches downstream will tend to be starved of gravel and will armour-up while gravel storage builds up upstream of the rockfall. Eventually, the stored gravel will be released after the river has incised into the rockfall. At present, there would appear to be a reasonably free connection of gravel storage zones down the main river, but in the recent geological past it is expected that the lower Mohaka's supply of gravel bed material would have varied considerably. Within this context, a reservoir behind a ~ 40 m high dam (such as the proposed Kakariki Dam) would not be an unusual feature.

Downstream from Willow Flat, the river gradient becomes flatter (averaging ~ 1.6 m/km) and smoother, although the profile is still steepened quasi-regularly by cobble-bedded riffles. Many of these also appear to have originated from rockfalls. The gradient of the coastal 14 km averages 1.4 m/km.

3.4. Channel form

The following observations of channel form were made during the field inspection from Willow Flat downstream:

- The gorge above Willow Flat had a steep bedrock channel with house-sized boulders.
- Between Willow Flat and Kakariki, the river was for the most part confined within largely bedrock banks. It had a weak run/riffle structure with a cobbles and sometimes small boulders forming the riffles.
- Between Kakariki and Raupunga, the river was often confined but generally contained more features like the lower section.
- At Raupunga (i.e. at the road bridge and water level recording site), the river is very confined and rectangular in section, with mainly bedrock banks and cobble/gravel substrate, with some bedrock exposed on the bed near the gorge walls.
- A short distance downstream from Raupunga the valley widens and the river character becomes more varied and remains like that until the sea. In the unconfined sections, the river banks comprise about 40% cobble/gravel bars and about 60% bedrock (soft sedimentary). About 60% of the bars are armoured cobbles (often with boulders at their upstream end). The other bars

appear to be more recent deposits and comprise gravels and occasionally sand deposits in the lee or into tributary confluences. The river has a weak run/riffle structure with about 10% riffles and the remainder runs. The riffles varied from short narrow boulder riffles to wide diagonal gravel riffles. There was little braiding with only two islands noticed. There were extensive silt/algal deposits along the margins but gravels were clean in swift flowing locations.

- The general impression was that the gravel substrate was ~ 2m thick on average along the channel downstream from Kakariki. This was a visual assessment, not based on any measurement or excavation, but it aligns with the observations of bedrock exposure in some of the pools and at some riffles and also with the impressions of gravel operators at QRS (Leigh Aitken, pers. comm., November 2005).

3.5. Bed-level change at Raupunga

The flow gauging records at Raupunga also contain a record of bed-level change (Figure 2). The section-mean bed level is found by subtracting the hydraulic radius (R , which approximates the mean depth) from the water surface elevation, and the section minimum bed-level is found by subtracting the maximum depth (d_{max}) over the section from the water surface elevation (stage). Points to note are:

- An upstream shift of the gauging section to the cableway in 1972 (which caused an apparent jump in the bed levels)
- A slight rise in mean bed level between 1950 and ~1957
- A gradual overall decline in bed level between 1957 and ~ 1984 at a rate of 17 mm/yr
- A sharp drop in mean bed level of ~ 0.5 m associated with the March 1985 flood
- A gradual rise in mean bed levels from mid 1985 to 1998, then a gradual reduction again.
- The minimum bed level pattern parallels the mean bed level overall, but shows greater variability due to scour and fill of the order of ~ 0.5 m associated with the gravel bar movement.

- The two downward spikes in the minimum bed level record in 1990 and 1995 occurred after two 1000+ m³/s floods, and probably indicate local scour to bedrock – suggesting that bedrock may be 2.5-3 m below the gravel.

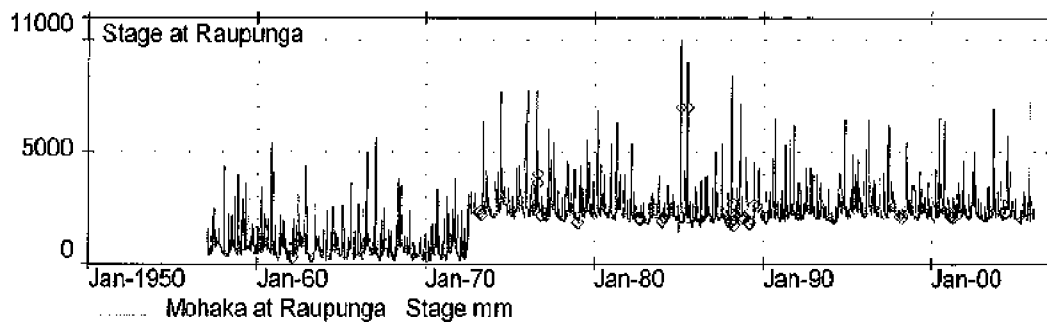
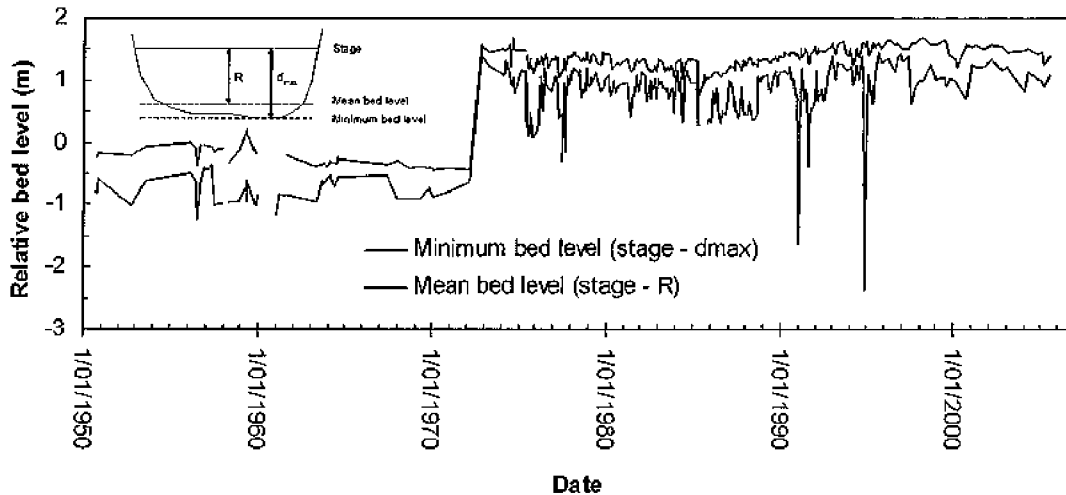


Figure 2 Upper plot: history of mean and minimum bed levels at Raupunga gauging section. Lower plot: stage record at Raupunga.

The broad temporal pattern suggests waxing and waning bedload supplies from up-catchment associated with large flood events. The 1998 peak followed the 1985 and 1988 floods, while the 1957 peak may have been the legacy of the 1938 flood. Thus gravel pulses associated with these large events take several decades to propagate down river.

3.6. Suspended load

3.6.1. Gaugings data

The annual average suspended sediment load of the Mohaka River at the dam site was estimated based on 77 suspended sediment gaugings collected at the Mohaka at

Raupunga recorder site (site 21801, catchment area 2380 km²) between February 1956 and May 2006. Within this dataset, suspended sediment concentrations (SSC) ranged up to a maximum of 4694 mg/l sampled at a river discharge of 1041 m³/s on 30 April 2006.

3.6.2. Yield and variability

The gaugings data were used to develop a rating relationship between SSC and water discharge. The rating was fitted to the log-transformed data using a LOcally-WEighted Scatterplot Smoothing (LOWESS) approach with Quasi-Maximum Likelihood Estimator (QMLE) bias correction applied to correct for logarithm-induced bias. This rating was then applied to the discharge record at Raupunga (1957-2005) to compute the suspended sediment yield.

This approach yielded an average suspended sediment load of 0.98 million tonnes per year (Mt/yr) with factorial error at the 2 sigma level of 1.4. The 95% confidence limits for average suspended sediment load at Raupunga, for the period of record (1957-2005) are therefore 0.7 Mt/yr and 1.4 Mt/yr¹.

Figure 3 shows how variable the suspended load is from year to year. Since 1957, the annual load has ranged from 0.16 Mt (1984) to 2.8 Mt (1985). The standard deviation on the annual load is 0.65 Mt. This variability relates to the incidence of flood flows.

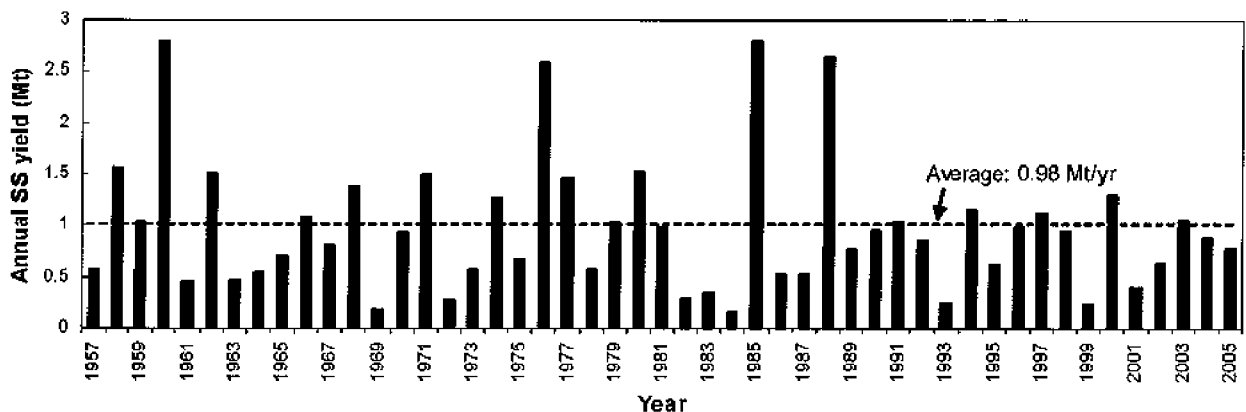


Figure 3: Annual suspended sediment loads (Mt) passing Mohaka at Raupunga gaugings site.

¹ In previous reporting we presented a mean annual yield estimate of 1.3 Mt/yr. This was based on a sediment rating developed before the SS samples were collected during the 29 April – 3 May 2006 event (Appendix 1). The latest estimate uses these samples.

3.6.3. Size grading

Six sets of multi-vertical depth-integrated suspended sediment samples were collected through the ~ 10 year return-period flood over 29 April to 3 May 2006 (Appendix 2). Two were collected while the stage was rising, two just after the flood peak, and the last two several days into the flood recession. These were used to derive a load-weighted average size distribution for the event, which we consider should be representative of the long-term average suspended sediment yield. The median size averaged 21.4 μm and ranged from 15.8 to 24.4 μm . The sand ($> 63 \mu\text{m}$) content averaged 19.5% and ranged from 18.2 to 21.1%. The clay ($< 4 \mu\text{m}$) content averaged 19.7% and ranged from 18.3 to 26.4%. Thus there was relatively little variation in particle size through the event. The median size was slightly coarser while the stage was rising. Both the clay and sand contents were slightly higher on the recession, indicating slightly less silt on the recession. The suspended sediment yield for this 5 day event was 690,000 t, which equates to 70% of the long-term average annual yield (980,000 t).

3.7. Bedload

The Mohaka's bed material and bedload is dominated by greywacke-sourced sand and gravel. The Mohaka is the only substantial river source of greywacke gravel in the northern Hawke Bay region, and consequently gravel has been extracted from several sites down the river for many decades. The gravel resource has been investigated in several reports by the regional authority (Hawke's Bay Regional Council and its predecessor the Hawke's Bay Catchment Board and Regional Water Board).

3.7.1. Gravel supply

HBRC (1991) reported on a gravel source survey of the Mohaka catchment; this was subsequently updated by HBRC (1995). They noted that in terms of supply of gravel bedload, the Mohaka catchment could be divided into four zones based mainly on bedrock lithology and tectonic disturbance:

Zone 1 covered areas of generally softer Tertiary rock. These cover the lower, eastern parts of the catchment and produce little bedload apart from relatively small incidences of concretionary sandstone and limestone.

Zone 2 covers the greywacke/argillite and ignimbrite terrain of the upper, western catchment. This appears not to be eroding significantly and is not producing

significant amounts of bedload, as evident by a lack of beaches and by stable, vegetated banks.

Zone 3 covers the greywacke/argillite terrain underlying the middle-lower reaches of the more northerly tributaries entering the Mohaka. This area is experiencing significant erosion, notably gullies and large slumps, and produces abundant bedload, as evident from accumulations on beaches and storage flats.

Zone 4 includes several areas generally lying adjacent to Zone 3 that are tectonically disturbed greywacke/argillite terrain marked by severe but irregular erosion events. These areas lie within the zone of intense shearing and crushing that is bounded by the Kaweka and Mohaka Faults. It is marked by eroding bedrock faces and large active riparian screes and slumps.

Within Zones 3 and 4, the argillite reduces very quickly under abrasion processes, leaving little bedload material, so that the bulk of the bedload is produced from the thick-bedded sandstone greywacke. The largest erosion events occur during intense rainfall, with debris being fed to the channel network from gravity-driven erosion processes. During smaller events, the river tends to win material by toe-scour of screes and debris fans. Thus large storms like Cyclone Bola in 1988 and the 1985 storm feed large quantities of coarse sediment to the river network, but it may require several decades for these pulses to be worked downstream by subsequent smaller floods.

Long-time observers of the Hawke Bay rivers (e.g., R.K. Smith, P. Arnold, pers. comm.) have noted that the rivers have tended to degrade over the latter part of the 20th century as the 'tail' of the sediment slug released by European deforestation has passed down the catchments.

3.7.2. Gravel storage

HBRC (1991 and 1995) note that the river network overall can be separated into gravel storage and transfer zones. The main gravel storage areas reflect reaches of low river gradient and abundant upstream bedload supplies, and tend to be found mainly in the middle reaches. Gradient checks are related to geological features (faults, lithology change), confluences, the remnants of past rockfalls, and hydraulic conditions. For example, the largest sediment storage area is at the Te Hoe confluence, reflecting both abundant bedload supplies from the Te Hoe and Mohaka mainstem and hydraulic choking of floods through the bedrock and old-rockfall constricted gorge downstream. Other, lesser, gravel storage sites include the Waipunga, Makahu, and Mangatutunui confluences, as well as beaches near SH5, in the Waipunga Gorge area, near the Te

Hoe Logging Camp, and the Hautapu River near Ngatapa Station. The relatively lower gradient reach between Raupunga and the coast (the “Raupunga Terrace”) is also regarded as a storage zone, with gravel collecting on point-bar beaches. HBRC (1995) noted how floods (e.g. Cyclone Bola in 1988 and the 1985 storm) had deposited up to several metres of gravel at most of these locations, with some of this deposited material being subsequently removed, leaving the rivers incised into terraces.

Greywacke gravel is also stored in pockets of Pleistocene age river terraces that occur in several places within the catchment. These were formed by the Mohaka River but are now perched well above the river after it has incised down. The matrix of these older gravels has weathered to a red-brown colour, hence the term “red metals” being applied. Some of these continue to be a source of greywacke cobbles and boulders to the modern river, while others are isolated from the river.

HBRC (1991) estimated the storage on active gravel beaches upstream from the Willow Flat area at 2.375 million m³ (1.05 million m³ of this at the Te Hoe confluence), with an additional 0.769 million m³ stored on beaches along the lower Mohaka, mainly between Raupunga and the coast. They estimated 10.2 million m³ of “red metal” gravel stored in the high terraces in the Raupunga area, with a further 12.1 million m³ from McVicars downstream to Tarawera farm. HBRC (1995) updated some of these storage figures, estimating a total of 4.328 million m³ on beaches upstream from Willow Flat, with 3 million m³ of this total at the Te Hoe confluence.

These storage figures are several times larger than earlier estimates of the recoverable gravel resource by Clark (1984). Clark estimated 250,000 m³ for the reach from 9 km upstream of the SH2 bridge at Raupunga to the mouth, and 150,000 m³ in the Te Hoe confluence area. HBCB (1986) noted that much of the storage in the lower river was removed (by extraction) in 1983 and 1984, but was replaced again by the 1985 flood. The difference between the Clark (1984) and HBRC (1991) estimates probably relate in part to flood-by-flood storage changes and in part to how they were estimated; Clark’s estimates may be more conservative because he focussed on recoverable gravel.

3.7.3. Bedload transfer

HBCB (1986) note that the transfer of gravel bedload through the catchment is slow, being dependent on large flood events, and is modulated by large (earthquake or storm-triggered) rockfalls that create temporary storage reservoirs for gravel. These rockfalls can stall or reduce the delivery of bedload to the river downstream for decades until the river gradient sufficient to allow gravel to bypass, which occurs

through deposition upstream of the obstruction, scour of the obstruction, or a combination. Once connected again with the river downstream of the obstruction, the delivery of bedload to the river downstream can remain elevated until the storage has been depleted again. Even without transient storage effects, large supply events such as Cyclone Bola mobilise a pulse of gravel (both from hillslope and riparian sources) that appears to require a decade or two to move downstream.

The overall effect of these transient controls on bedload supply to the channel, in-channel storage, and downstream transfer is that bedload transport in the lower Mohaka tends to occur as pulses. The time scales of these pulses last from a few days (associated with single floods) to many decades, perhaps centuries (associated with the larger rockfall dams). At times the bedload movement in the river near the coast may be a complex result of upstream signals.

With regard to the proposed hydro operation, the bedload sources are dominantly upstream from Willow Flat. The river downstream from there is primarily a transfer zone, albeit with some storage in the bed and on bars, particularly downstream from Raupunga. Imbalances between transport capacity and the bedload supply from upstream are manifest by fluctuations in bed level and substrate character: phases of abundant bedload supply will be manifest by bed aggradation and minimal armouring, while phases of low bedload supply will lead to degradation and armouring.

3.7.4. Bed-material size and composition in the lower Mohaka

The two sub-surface (i.e., under the surface armour) samples collected from near Raupunga and near the mouth (detailed in Appendix 1) were used to indicate the composition and size grading of the lower Mohaka bed-material. Near Raupunga, 14.7% of the bed material was sand, the overall median size was 14.2 mm, the median gravel size (> 2 mm) was 17.6 mm, and 93% of the grains coarser than 4 mm were composed of greywacke. Only trace amounts of other lithologies were found, including calcareous mudstone and sandstone concretion, limestone, chert, and ignimbrite.

Near the mouth, 14.3% of the bed material was sand, the overall median size was 9.0 mm, the median gravel size (> 2 mm) was 11.0 mm, and 95% of the grains coarser than 4 mm were composed of greywacke. While two samples hardly form a trend, the indication is for a slight downstream reduction in median size and a slight increase in the proportion of greywacke – both being consistent with the effects of abrasion (which will tend to reduce the size of gravel downstream but also concentrate the more resistant greywacke pebbles).

No cobbles coarser than 128 mm were sampled, although inspection of the commercial gravel-pit piles showed greywacke cobbles as large as 256 mm in diameter.

The surface samples at these locations were also dominantly greywacke (89% near Raupunga and 96% near the mouth). The median surface size was 31.8 mm near Raupunga and 26.3 mm near the mouth, indicating armour indexes of 1.8 and 2.4, respectively².

The surface sample at near Kakariki has a median size of 51 mm and was only 79% greywacke. Most of the remaining clasts were either mudstone or sandstone concretions. Again, the downstream trend for greywacke to dominate reflects abrasion of the less resistant lithologies. The coarser surface size at this location reflects the more energetic hydraulic conditions compared with further downstream.

It was observed during the inspection by jet-boat that the bed surface material locally had higher concentrations of boulder and cobble-grade mudstone and sandstone. This material appeared on beaches at and immediately downstream from rockfalls and slumps; however, it appeared to disappear within about 500-1000 m of the source, attesting to the rapid abrasion rates of the Tertiary sedimentary rocks.

Hangi stones are found occasionally along the lower Mohaka and on the cobble beach at the mouth. These are sourced from the Te Whaiti Ignimbrite in the Mohaka headwaters.

3.7.5. Bedload transport rates and capacity

3.8. Gravel extraction

3.8.1. Sources and regional importance

The Mohaka River has become the principal source of gravel for the northern Hawke Bay, Gisborne and Taupo areas, and ranks as an important source for the wider Central Eastern North Island region (HBRC, 1995). The nearest alternative sources of gravel of equivalent, high-grade quality are the rivers of the Heretaunga Plains area. Gravel has been extracted from the river since the 1930s. The main extraction sites

² The armour index is the ratio of the median size of the surface layer and the median size of the gravel fraction of the sub-surface material. This equals 1 when there is no surface armouring.

correspond to the main storage zones that are accessible. The four main areas include Pakaututu, around SH5, the Te Hoe confluence, and the lower Mohaka from around SH2 to the mouth. The quality of the gravel tends to be poorer in the middle reaches, where softer Papa material is more likely to remain mixed with the desirable greywacke. There are seven extraction sites downstream from the proposed M20.5 dam site near Kakariki.

3.8.2. Extraction and replenishment rates

The gravel is taken from beaches. HBCB (1986) noted that (up until 1986) beach replenishment during floods had kept pace with extractions rates, which had averaged ~ 20,000 m³/yr in the lower Mohaka and 7-10,000 m³/yr at Pakaututu and at SH5 (Napier-Taupo Road). Using figures from Table 34 of HBCB (1986), the average total rate of extraction from the Mohaka over the period 1964-1986 was approximately 35,000 m³/yr, with annual rates varying from ~ 10,000 m³/yr up to 55,000 m³/yr.

These extractions would appear to have been sustainable in the sense that (as noted by HBCB, 1986) storage on river beaches was maintained on average. HBCB (1986) also noted that the erratic replenishment from floods meant that replenishment and extraction were not in balance on a year by year basis.

HBRC (1995) updated the extraction figures, noting an average extraction rate of 31,700 m³/yr since 1963 from the whole river, with the majority taken from between Raupunga and the mouth.

More recently, extraction rates from the lower Mohaka (downstream from Willow Flat) have averaged 23,113 m³/yr from 2000 to 2005, ranging from 11,628 m³ in 2000 to 39,607 m³ in 2003 (figures supplied by Vince Burn, Hawke's Bay Regional Council). The main extractors were QRS and Mohaka Aggregates. HBRC currently issue extraction consents on an annual basis.

Our discussion with QRS in November 2005 supported these figures and revealed:

- QRS's take from the lower Mohaka had ranged from ~ 15,000-30,000 m³/yr in recent years, while other extractors were taking ~ 5,000 m³/yr between them; they estimate that the average take from the lower river has been ~ 20,000 m³/yr in recent years.
- Their view was that the gravel resource in the lower river was being depleted with time, more often it was becoming necessary to venture into the river to

win gravel rather than take it from the dry beaches, and they were having to chase the gravel further upstream.

- Beaches tended to be replenished by large floods such as the Cyclone Bola event in 1988, while the more common floods (with peak discharges of the order of $\sim 1000 \text{ m}^3/\text{s}$, such as the $\sim 1300 \text{ m}^3/\text{s}$ event in October 2005) only restored relatively small amounts of gravel.
- The depth of gravel over bedrock along the lower Mohaka was estimated to be about 1-2 m on average but up to 4 m in places.
- There were potential extraction sites that could not be accessed, either because of physical access problems or lack of permission from the local iwi.
- QRS currently take some 50-60,000 m^3/yr from the Terrace gravels. The Mossman's quarry is unusual in that the gravels there are less weathered than the typical "Red Metal" gravels. This makes the Mossman's gravel more suitable for their roading contract.
- The Red Metal gravel, with its higher clay content, is favoured for local, unsealed roads, and the local forest operators extract their own gravel for this purpose.

In summary, QRS held the view that the current extraction rates of $\sim 20,000 \text{ m}^3/\text{yr}$ were not sustainable given current re-supply rates from upstream, and they were focussing more on Terrace Gravels, partly because of this supply issue but also because the Terrace Gravels were more suited to their current market requirements.

Discussions with HBRC staff (Graham Hanson, Gary Cload, Neil Daykin, Vince Burn) in November 2005 revealed:

- There was an annual extraction limit of $40,000 \text{ m}^3/\text{yr}$. This had been set based on historical extraction rates and liaison with the local iwi. It was considered that, if anything, this extraction rate was *less* than the gravel supply from upstream.
- Continuity of gravel delivery to the coast has not been considered when setting extraction limits.

- The depth of gravel over bedrock along the lower Mohaka was estimated to be about 2 m on average, was up to 3-4 m in places, while there were also places where bedrock was exposed in the river channel.
- There are no cross-sections surveyed in the Mohaka.

In summary, the view of the regional council that the replenishment rate of gravel to the lower Mohaka was larger than the current allowable and actual take was at variance with the comments from QRS that replenishment had not kept pace in recent years.

3.8.3. Bedload transport rates and sustainable extraction rates estimated by HBRC

HBRC (1995) used theoretical estimates of bedload transport to establish sustainable extraction limits. The method was not described in detail, but it appears that some (unnamed) bedload transport function that related transport rate to the excess of bed shear stress over the bed-material entrainment stress was used to develop a bedload 'rating' (i.e., a relationship between bedload discharge and water discharge). This rating was then combined with the water discharge record to compute the annual bedload discharges and the average annual bedload discharge over the period of record. This approach was applied at the Glenfalls and Raupunga flow recording sites.

The Raupunga result is of greater significance because it is a gauge of the bedload delivery to the reach where the bulk of the gravel has been extracted. The computed annual average bedload at Raupunga ranged from 55,600 m³/yr to 214,300 m³/yr, depending on whether the bed surface (i.e., armour) median size was used in the calculation (75 mm for former result) or whether the sub-surface (i.e., bulk) median size was used (23 mm for the latter result). It was noted that the smaller figure should correspond to conditions when the river was transporting less bedload under armoured conditions at times when the supply from upstream was limited (e.g., when the connection with the upper catchment was interrupted by a rockfall dam). Conversely, the larger figure should apply at times when the river might be transporting more and finer bedload on average while temporary upstream deposits were being released to the lower river. In other words, the larger figure is the maximum capacity while the smaller figure reflects the particular supply-limited case when the surface measurements were made. HBRC (1995) also noted substantial variability in annual bedload capacity, depending on the incidence of floods.

Based on these results, HBRC (1995) recommended a sustainable annual extraction volume of 65,000 m³ for the river between Raupunga and the coast. They concluded

that this rate should ensure that the extraction site beaches in the lower river were replenished and the effect on the coastal system would remain negligible. However, the logic for setting this value is not at all clear, since there is no information on what the average annual bedload discharge past Raupunga has *actually been* nor on how much has actually reached the river mouth.

HBRC (1995) noted that, because the Mohaka flowed in a well-defined mudstone bedrock channel for much of its length, the effects of over-extraction would be minimal on the channel. However, they noted that over-extraction would impact the gravel supply to the beaches either side of the river mouth and so could accelerate erosion of the coastal cliffs/hill-slopes.

They noted that extraction sites were monitored 3-4 times per year. This monitoring would appear to be visual. There do not appear to be any surveys of bed levels and storage volumes.

3.8.4. Bedload transport rates at Raupunga revisited

We performed a similar set of bedload transport calculations at the Raupunga gauging site using the transport model of Wilcock and Crowe (2003). This determines the bedload transport rate of each size fraction and uses the full size grading of the bed surface layer. Hydraulic geometry relations (i.e., velocity, depth, water surface slope, bed width in relation to water discharge) were derived from the flow gaugings at the Raupunga recorder site, and were input to the Wilcock-Crowe model to generate a bedload rating that was then combined with the water discharge record (spanning the period 1958-2005). Two scenarios were modelled. The first assumed that the bed would retain the armoured surface size distribution as measured near Raupunga in November 2005 (Appendix 1) up to the stage when the armour became generally mobilised ($\sim 450 \text{ m}^3/\text{s}$), thereafter the size distribution was replaced with that of the bulk bed material from the same location (Appendix 1). This is expected to indicate the bedload discharge under the *current supply regime*. The second scenario assumed abundant bed-material supply with no surface armouring at any stage, and therefore indicates the maximum transport capacity – this is termed the *abundant supply regime*. The results are sensitive to the value assumed for the equivalent sand roughness, k_s , since this determines the proportion of the total boundary shear stress developed as grain stress (which drives bedload transport). In the absence of any field measurements of k_s at Raupunga, two values were assumed: one with k_s equal to $0.84D_{90}$ (where D_{90} is the size at which 90% of the sample is finer) as recommended by Wilcock and Crowe (2003), the other with k_s equal to $2D_{90}$ as recommended by

Parker (G. Parker, University of Illinois, e-book on 1-d morphodynamics in preparation). The bulk dry density was assumed equal to 1.8 t/m^3 .

The results indicated an annual average bedload of $14,300 - 23,800 \text{ m}^3/\text{yr}$ under the current supply regime and $77,800 - 163,900 \text{ m}^3/\text{yr}$ under the abundant supply regime (the estimate ranges relate to the value assumed for k_s). The annual bedload discharges ranged between 0 and 4.4 times the average annual values (Figure 4). These results are smaller than those calculated by HBRC (1995). In particular, our results for the current supply regime averaged for the 200-2005 period ($\sim 15,000\text{-}24,000 \text{ m}^3/\text{yr}$, which is very close to the longer term average for the 1958-2005 period) suggest a bedload delivery downstream of Raupunga probably less than, but certainly no more than, the average extraction takes for this period. This is consistent with QRS's observations that the gravel resource has declined in the lower river in recent years. This suggests that the extraction limits set by HBRC are too high, at least until there is another event in the catchment that mobilises more gravel. Monitoring a network of cross-sections along the extraction reaches on a several-yearly basis would provide a basis for tuning the extraction limits to ensure stable bed-levels.

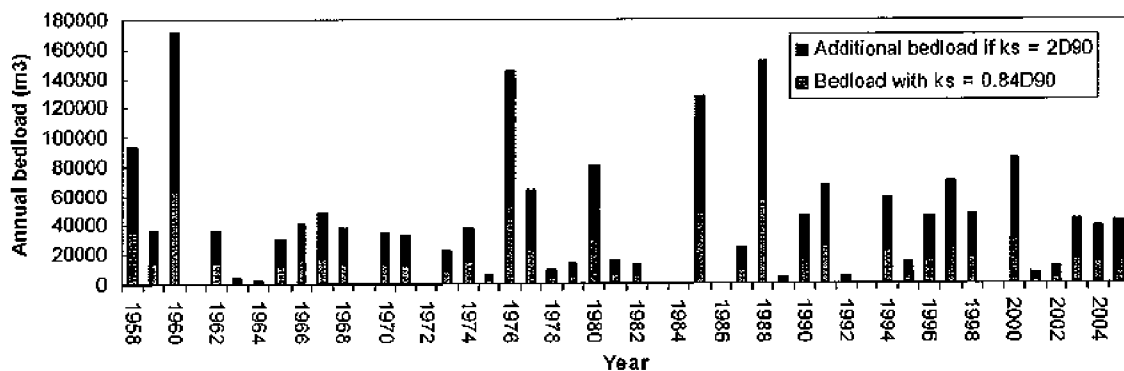


Figure 4: Annual bedload discharge estimated at Raupunga gauging site under current bedload supply regime. The blue bars indicate the lower-bound estimate while the overall bar height gives the upper-bound estimate.

4. The river mouth

4.1. Form and variability

At normal flows, the Mohaka River enters the ocean via a small lagoon. The lagoon is fronted by a gravel beach barrier and drains through a channel that is often offset alongshore from the river centreline (Figure 5). The outlet channel can migrate to north or south, depending on where it is pushed by wave action. Historical air photographs capture it in various locations (Figure 6), while geomorphic evidence

indicates that it has at times migrated up to 1.5 km to the north and 1 km to the south of the river centreline. This is evident from the 'accommodation space' that the river has cut into the coastal hillslopes and cliffs at times when it has been diverted alongshore, leaving a low lying swale between the beach crest and the hillslopes (Figure 6). This range of migration was also noted by Ruku Wainohu (pers. comm.). During floods, the river cuts a direct opening and builds a sandy gravel delta to seaward. After the flood, waves return this material to the shore, quickly reforming the barrier across the lagoon and constricting the opening. As a result of the varying dominance of river flows and waves, and of varying wave approach directions, the mouth shows substantial variability in form. The extent of tidal influence will depend on the location and width of the mouth, but it would appear to extend about only as far upstream as the bridge – about 1 km from the ocean.

In the long-term, the coastline at the river mouth appears to be retreating, as evident from the truncated hillslope toes. The retreat is achieved by a combination of wave erosion and by the river when it is diverted alongshore. The access road on the north side is threatened whenever the outlet channel diverts north, and suffered damage over the summer of 2005/6.



Figure 5: The Mohaka mouth photographed November 2005.

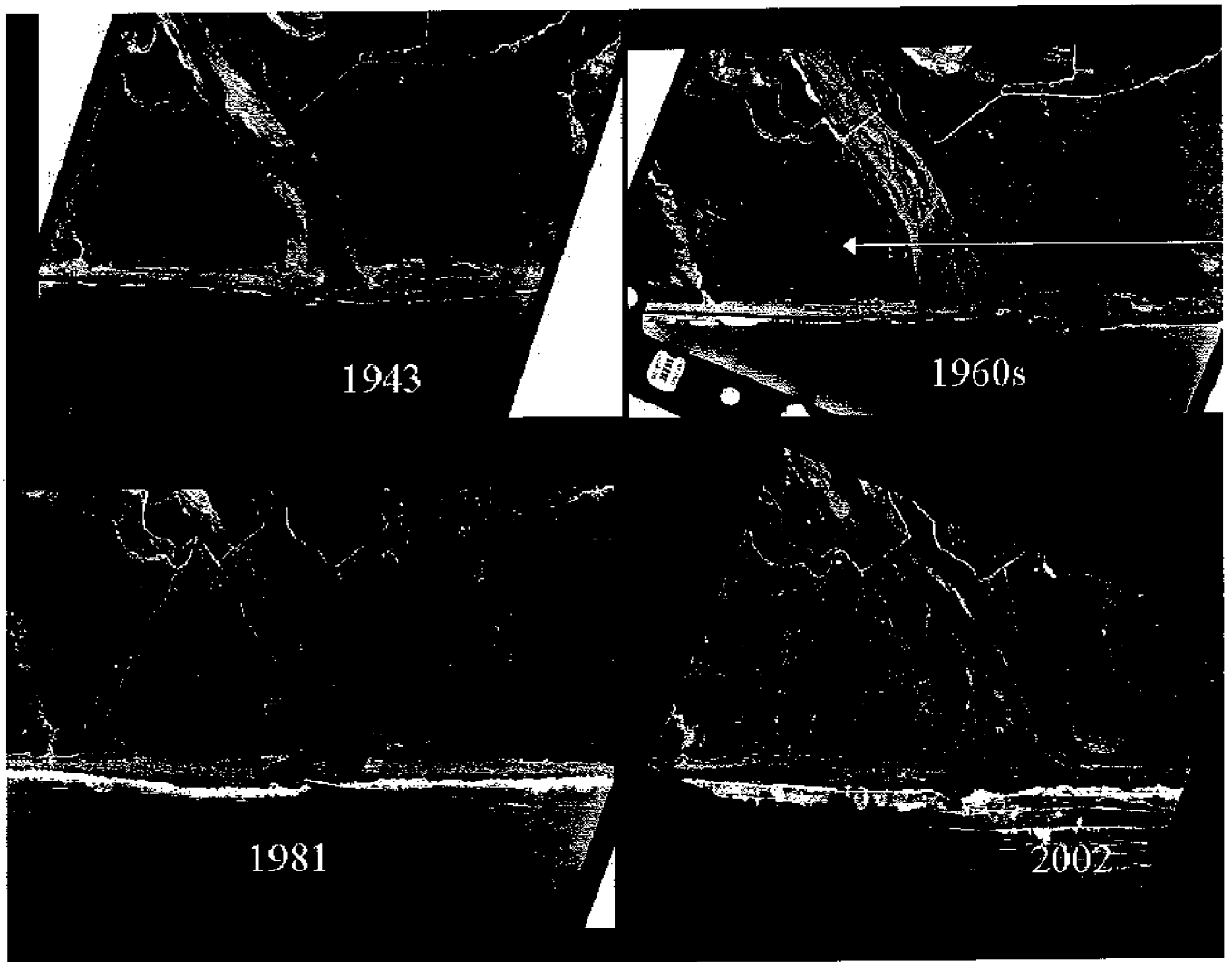


Figure 6: Aerial photographs of the Mohaka mouth since 1943. The span of river mouth position is marked on the 1960s photograph.

4.2. Historical changes

References to the Mohaka mouth from the early 1800s are included in the book ‘Shandrydan’ (Fraser, 2004). Whale boats were based at the mouth, and by the mid 1800s trading schooners and cutters were entering the estuary. The first steamships crossed the bar in the 1870s. The bar was apparently dangerous then, and several vessels foundered on it. Fraser notes that by 1920 the only vessel able to enter the river mouth was the small steam cutter ‘Te Atu’ and that by 1924 “the mouth was not being kept open”. A photograph of the river mouth circa. 1900 in Fraser (2004) shows a broad apron of sediment downstream from the bridge, much like the apron in the 2002 photograph shown in Figure 6. This history suggests that the estuary may have

been deeper and more easily navigable in the 1800s, and may have accumulated sediment in the last few decades of that century – perhaps in association with forest clearance, as a result of large floods, earthquakes, or following the release of a rockfall dam. However, there is no conclusive evidence of this in Fraser’s book, and the decline in use of the mouth may simply reflect the opening of the road and rail links with Napier and Wairoa.

5. The coast

5.1. Form and character

The coast adjacent to the Mohaka River mouth forms a long, curving sweep at the northern end of Hawke Bay, extending ~ 70 km from the Matangimamoe headland in the west to Waitaniwha headland in the east, near Mahia (Figure 7). Between Matangimamoe and the Wairoa Valley, the shore is cut into Tertiary sedimentary rocks, mainly Papa mudstone. These form high cliffs or very steep hillslopes that are prone to gravity failure. A typically thin wedge of beach occupies the angle formed between the slopes and the wave-cut shore platform. This high shore is broken where the Waikari, Mohaka, and Waihua Rivers have cut down to the coast. These rivers all have small estuaries and narrow lagoons impounded behind the beach ridge, and they have all carved a small indent in the cliff line during floods and in association with mouth-offsetting processes, as described above at the Mohaka mouth. This has created some ‘accommodation space’ where beach sediment tends to collect and where the beaches locally widen. From the Wairoa Valley north, the shore is mostly beach ridge fronting a narrow coastal lowland occupied first by the Wairoa estuary then by a string of freshwater lagoons and old beach ridges. This lowland span is interrupted in several places where Tertiary spurs swing back to the coast. There are several beach ridges east Whakaki, indicating a locally accreting coast.

5.2. Sediment characteristics – longshore trends and sources

The beach sediment is sandy gravel at the Mohaka River mouth and fines progressively to south and north. The gravel grades are formed primarily of greywacke. The sand is mainly a mixture of brown grains (sourced from Tertiary sandstones and marls) and dark-grey grains (sourced from the greywacke and ignimbrite terrains).

Bird (1996) noted that going east the modal beach sediment size decreased from pebble grade at the Mohaka mouth, through granules at the Waihua mouth, very coarse sand and granules at Wairoa, very coarse sand at Whakiki, and eventually to

medium sand at Waitaniwha. He noted that the beach sediments also become better sorted as their modal size decreases eastward, and concluded that these textural trends reflected both the effects of abrasion (as originally suggested by Marshall, 1929) and hydraulic sorting as the Mohaka sediment is moved eastward by littoral drift processes. West of the Mohaka mouth, the modal grainsize reduces more rapidly, and the modal size is mainly medium-course sand at the Waikari mouth, albeit with some scattered drifts of pebbles.

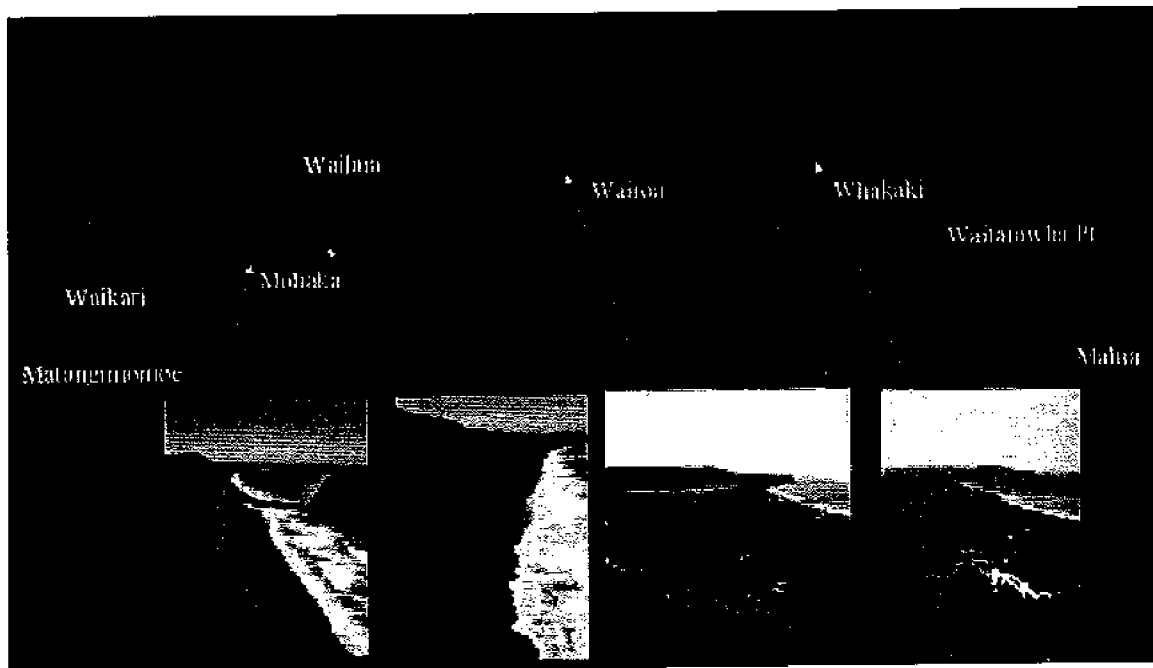


Figure 7: Northern Hawke Bay littoral cell.

Our inspection in April 2006 showed that the beach deposit at the Mohaka mouth area comprised a mixture of sand and gravel. The beach interior, where exposed by river cuts, tended to be poorly sorted but on the surface the sand and gravel tended to have been separated hydraulically. Gravel was concentrated on the beach face, particularly on cusp horns, appearing to have been concentrated there as a lag. Sand tended to occur in drifts, particularly on wash-over slopes over the back shore. The concentration of gravel decreased markedly to east and west of the ~ 2 km long accommodation space carved by the river, with the beach mainly sandy with gravel appearing only in lenses and on cusp horns. The beach in the small accommodation space at the Waihua mouth consisted of a thin wedge of granules and fine sand with scattered cobbles. To east and west there was no beach material at all on the wave-cut Papa platform, the cliffs were steep, and there was no talus at their toes. This coast is clearly eroding, as evident by the loss of segments of the beach access road.

The beach barrier on the west side of the Wairoa outlet channel was wide and high (~4.5 m above mean sea level) in front of the partly in-filled backshore lagoon. It was composed of well-sorted granules, with little sand and a few scattered greywacke discs. The cliffs behind the backshore were at relatively low gradient and grassed-over, indicating they have been stable for some time. To the west, the beach pinched-out to a patchy thin wedge in front of high, steep, eroding cliffs, and this condition appeared to persist back along to the Waihua mouth. It appeared that the Wairoa barrier is an accumulation and sorting zone for sediment that drifts along the Papa shore platform in sparse concentrations from the west.

North of Whakiki Lagoon, we observed an apparently accreting shore, with several lines of dune ridges (the landward ones vegetated). The beach in front of the foredune had a 30 m wide, flat berm and was formed mainly of pebbly sand, the pebbles tending to collect in patches and on cusp horns. The dune sand was medium grade. The impression was gained that the coastal plain was uplifted nearshore seabed that had been subsequently barricaded by the beach ridges.

The Mohaka River is the dominant source of greywacke gravel to the coast. Small amounts are supplied by the Waikari River and there are small contributions of 'red metal' terrace gravels yielded by cliff erosion at the Waikari and Mohaka mouths. Compared to the gravel-dominated Mohaka mouth, however, the Waikari mouth is sandy, with a gently sloping dissipative sandy beach with a low crest and a wide, shallow outlet channel. The Waihua River near its mouth has a Papa-bedrock channel bedded with a layer of brown coarse sand sourced from the Tertiary rocks. Thus it supplies no gravel, and owing to its small catchment only supplies small amounts of sand. The Wairoa River carries little gravel and its large estuary prevents any gravel delivery to the open coast. The estuary is bedded by muddy sand. It probably delivers some sand to the coast during floods, although no detailed investigations of the Wairoa estuary's sediment budget appears to have been undertaken.

5.3. Wave climate and longshore drift

The wave Climate of northern Hawke Bay is dominated by swell generated in the southern ocean, but includes waves generated more locally from mainly SW and SE winds. Tonkin & Taylor (2003) analysed a 20 year record of hindcast deep water waves that had been refracted shoreward using the SWAN model (Gorman, 2003). This showed that the nearshore wave climate varies alongshore, with mean wave energy generally increasing towards the east along Hawke Bay overall (due to the reducing shelter afforded by Cape Kidnappers and wave energy spreading and dissipation within Hawke Bay). In northern Hawke Bay, going east between the

Waikari and Nuhaka River mouths, mean significant wave height increased slightly to a peak of 1.16 m at Whakaki, while the mean approach direction pivoted clockwise from 148 degrees East of North at Waikari to 191 degrees at Nuhaka (Tonkin and Taylor, 2003). These changing approach directions follow the curvature of the bay, but there is a small residual angle that results in a net easterly longshore drift. The longshore drift regime includes drift in both directions, depending on whether the waves approach from south or southeast, but the net drift is east. This is reflected by the strongly eastward-skewed distribution of gravel about the Mohaka mouth and the typically eastward offset location of the river mouths.

No calculations of longshore drift rates appear to have been made from the wave climate data.

5.4. Erosion

Most investigators have reported that the cliffed shore of northern Hawke Bay appears to be eroding, but measurements of shoreline retreat rate are lacking. For example, there appear to have been no photogrammetric measurements made off historical aerial photographs and no beach profiles surveyed in front of the eroding cliffs. Tonkin & Taylor (2004) derived an average rate of 0.1 m/yr by dividing the average width of wave-cut shore platform by the 6500 years since sea-level has been (more or less) at its present level, which is of similar order to cliffed-shore retreat rates measured photogrammetrically by Gibb (2002) from the Mahanga area north of Mahia. While beach profiles have been surveyed on the Wairoa barrier since 1998, the record is currently too short for inferring long-term trends (Tonkin & Taylor, 2004).

Erosion of the cliffs/steep hillslopes occurs mainly by gravity-driven slip and slump as the sea chews away at the cliff toes (Figure 8). Beyond about 1 km either side from the Mohaka River centreline, the beach wedge – at least when we inspected it in February 2006 – was very narrow and appears to do little in the way of protecting the cliff toe from storm waves. Indeed, our inspection showed that in the area of the Waihua mouth and west of the Wairoa valley, the distribution of beach sediment was patchy and slabs of wave-cut Papa were exposed (Figure 9). Quite likely, the beach fronting the cliffs waxes and wanes in size (affording more or less protection to the cliffs) according to the history of sediment influxes from the Mohaka River during floods.

5.5. Littoral cell

Northern Hawke Bay therefore forms a littoral cell (Figure 7), with gravel and sand sourced mainly from the Mohaka River and additional sand contributions from the

other rivers and from erosion of the Matangimomoe headland at the southern boundary. Our field inspection showed that the eroding cliffs east of the Waikari River are formed mainly of mud and siltstone, so that when rendered down they should yield little sand to the beach system³. The Mohaka gravel is dispersed both west and east of the mouth by the mixed wave directions, but overall it drifts eastward and is rendered finer in the process. We formed the view that the thin beach-over-Papa shore between the Mohaka and Wairoa barrier was acting as transfer zone, moving Mohaka gravel and coarse sand in sparse concentrations between the Mohaka mouth and the Wairoa barrier, with the longshore transport potential typically greater than the sediment supply. Possibly, a more substantial beach may form on a transient basis following floods down the Mohaka River.

The main 'sink' for the Mohaka gravel and sand would appear to be the Wairoa barrier, the beach ridges of the narrow coastal plains further east, and Opoutama-Mahia Beach on the south side of the tombolo that joins Mahia Peninsula to the mainland. The scarcity of sand past Waitaniwha Bay and Waikokopu Point indicates that this area must be a sediment transfer zone. The Mahia end of the Hawke Bay coast has been uplifted by the order of 1-3 m per 1000 years (Mazengarb and Speden, 2000). This uplift will have isolated older coastal deposits in this area from the current littoral system.



Figure 8: Wave-trimmed slope toes immediately east of the Mohaka mouth, November 2005.

³ R. K. Smith (pers. comm.) assayed the sand content of Papa cliffs at Young Nick's Head, finding it to be 3%.



Figure 9: Wave-cut shore platform in Papa mudstone with a patchy veneer of beach gravel, west of Wairoa River mouth, April 2006.

5.6. Beach sediment storage

During our field inspection in February 2006, we estimated the width of the beach and the foreshore and backshore slopes at the Mohaka mouth area, at the Waihua mouth, along and west of the Wairoa barrier, and at Whakiki. With this information, and using data on beach crest height and the depth of the beach-face step extracted from beach profiles reported by Tonkin & Taylor (2004), we estimated the volume of beach sediment stored along various segments of the shore as in Table 2 (the accuracy of these volumes is estimated as within a factor of 2).

While moderate storage (~ 1.3 million m³) occurs at the Mohaka mouth, the dominant storage occurs in the Wairoa barrier and on the beach and beach ridges further east in the Whakaki area (totalling ~ 22 million m³). The storage at the Mohaka mouth essentially represents a combination of a wave-flattened delta and the infilling of the narrow box of accommodation space carved by the river during the wanderings of its outlet to west and east of the valley centreline. The large storage at the Wairoa estuary is because there is a wide, drowned river valley to plug with beach sediment. The storage space further east appears to have been created by tectonic uplift.

When compared with an estimate of the mean annual bedload of the Mohaka River, these figures indicate the number of years worth of river bedload supply potentially stored in each segment and thus the age or 'residence time' of the deposits (Table 2). For this exercise, we have estimated a long-term average bedload supply of ~ 40,000 m³/yr. This was set somewhat arbitrarily, assuming that the long-term average bedload

would lie between the abundant supply and restricted supply scenarios dealt with in section 3.8.4. We expect, however, that this figure should be reliable to within about a factor of two (for example, a bedload supply of 80,000 m³/yr would halve the residence times listed in Table 2).

Table 2: Coarse sand and gravel storage in lower Mohaka River and along segments of coast between Mohaka River mouth and Whakaki. Mohaka bedload residence time compares storage volume to estimated long-term average Mohaka bedload (40,000 m³/yr).

	Span (km)	Storage (Million m ³)	Residence time (yr)
Lower Mohaka River	20	1.8	45
Mohaka mouth	2	1.3	33
Mohaka-Wairoa cliffs	15.6	0.5	13
Wairoa barrier	11.5	10.3	258
Whakaki barrier	17	11.5	288
Total on coast		24	590

These figures (Table 2) indicate about 3 decades of residence time (or 3 decades worth of river bedload storage) at the Mohaka mouth, only about 1 decade in front of the high cliffs east to the Wairoa, but about 500 years from Wairoa east. In fact, the abrasion process means that the further east from the Mohaka River mouth, the more these residence times will be underestimated. For example, assuming that the Mohaka River's bedload is reduced in diameter by a factor of 10 (say from 14 mm pebbles down to 1.4 mm very coarse sand) between the river mouth and Whakaki, this represents a potential volume loss factor – or 'rendering ratio' of 1000. However, this assumes that the abrasion by-products are finer than beach sediment grade and does not allow for longshore sorting by preferential longshore transport of finer grainsizes, so the 'rendering ratio' will be less than this. It is not within the scope of this study to take this further, however, assuming that the average rendering ratio is a factor of 10, the total volume of beach sediment in storage between the Mohaka mouth and Whakaki represents ~ 6,000 years or Mohaka bedload, which is consistent with the duration of the current stable sea level stand.

Put simply, it appears that the Mohaka mouth area acts as a clearing house for Mohaka bedload deposited during floods, the cliffed shore to the east is a transfer zone, and the Wairoa-Whakaki shore is the accumulation zone.

6. Hydro-dam effects

6.1. Reservoir sedimentation

A reservoir on the Mohaka River will trap sediment. The sandy-gravel bedload of the river, and the coarser sand fractions of the suspended load that settle quickly, will be deposited on a wedge-shaped delta at the upstream end of the reservoir. The finer fractions of the suspended load will drift further down the reservoir, some settling on the reservoir bed but some passing right through. The efficiency of the suspended sediment entrapment will depend on the reservoir characteristics. With time, the delta will advance into the reservoir while the bed of the lower reservoir will build up. As the reservoir fills with sediment, it will become less efficient at trapping the suspended sediment. Key considerations are the rate at which the reservoir will infill with sediment, the time until it fills completely, the form and growth-rate of the delta at the upstream end, and the effects of the interrupted delivery of gravel and sand to the river downstream and to the coast.

6.1.1. Reservoir characteristics

The hydrologic size of the reservoir, or capacity to inflow (C:I) ratio, expresses the ratio of total reservoir volume to mean annual inflow. For reservoir sediment management, the hydrologic size of the reservoir is more important than the absolute size since it is the principal factor determining the sediment entrapment efficiency (Brune, 1953) and also a primary factor in determining the type of sediment management practice that may be applied. An interpretation of the C:I ratio is that it is the time for a slug of water to pass through the reservoir at the rate of the mean annual inflow.

The proposed reservoir with a dam at M20.5 (i.e., 20.5 km upstream from the coast), a mean inflow of 76 m³/s, and a volume of ~ 50 Mm³, would have a C:I ratio of 0.02.

6.1.2. Sediment entrapment and time to fill

Using Brune's (1953) relationship between Trap Efficiency and C:I ratio, the trap efficiency of the reservoir for the suspended load, based on Brune's Median Curve for Normal Poned Reservoirs, is estimated to be 60 %. The trap efficiency for bedload would be 100 %. Given these trap efficiency estimates, assuming a bulk density for the reservoir deposit of 1.34 t/m³ (based on measurements in Lake Roxburgh in the Clutha catchment), and using the estimates of long-term average annual suspended sediment load and bed load given in sections 3.6–3.8 (adjusted for the slight reduction in catchment area between the Raupunga gauging site and the dam location at M20.5),

the average rate of reduction in reservoir storage volume due to sediment entrapment would be approximately 0.5 Mm³ per year (which equates to a 50 ha area accumulating sediment at a rate of 1 m/yr).

A minimum value estimate of reservoir life before infilling with sediment can be obtained by dividing the total storage volume by the average sedimentation rate. Given that the storage volume of the reservoir would be 50 Mm³, a reservoir life of approximately 100 years is indicated. This is a minimum value because the suspended sediment trap efficiency would reduce as the reservoir volume decreased. Also, this does not account for the build-up of sediment above normal operating level that will occur during advanced years in the life of the reservoir as the sediment delta progrades and reverts to a riverine environment; nor does it allow for operational procedures that may temporarily reduce the sediment trap efficiency, e.g., using flood drawdown operations with a low level sluice.

We estimate that it could be more like 200 years before riverine conditions were re-established through the reservoir and for the sandy gravelly bedload to begin naturally bypassing the damsite. At that stage we expect that the reservoir reach would assume the appearance of the current Mohaka River in the area downstream of the Te Hoe confluence, i.e., a valley-confined storage reach with gravel-bed channel and long gravel beaches alternating from one bank to the other (Figure 10).

We recommend that should the proposal proceed to the next stage, then a more detailed, numerical modelling analysis be undertaken to provide a more reliable estimate of the reservoir life and the arrival time of the toe of the sediment delta at the dam. This should consider the progradation of the sediment delta, the reducing trap efficiency, and possible operations to assist sediment bypassing – such as sediment sluicing during full reservoir dewatering or sediment flushing during partial drawdown during natural flood events (as discussed in Ackers, 2006).

6.1.3. Upstream delta form and growth rate

A simple geometric model was used to estimate the profile of the delta expected to form at the upstream end of the proposed Mohaka reservoir. This assumed that the delta would develop stable, equilibrium topset and forset slopes and that these would intersect at the elevation of the reservoir's operating water level. Thus as the delta volume increased, the intersection point and forset (or 'tipping face') would advance down the reservoir while the topset aggraded and lapped progressively further upstream.



Figure 10: View upstream along the Mohaka River from several km downstream of the Te Hoe confluence, as photographed in November 2005.

The delta topset slope was assumed to equal 0.0024, which is the bed slope formed upstream of the natural rockfall-dam below the confluence of the Te Hoe River (Figure 1). The river upstream from this natural control has an alluvial bed, and we assume that there the gradient has developed to reflect a balance between bedload transport capacity and bedload supply. The forset slope was assumed (after Morris and Fan, 1998) to be 6.5 times the topset slope, i.e., 0.0156. The Morris and Fang factor is the average from many reservoirs. By comparison, the forset slope in Lake Roxburgh on the Clutha River is 0.0088.

A Visual Basic macro was used to determine the position of the tipping face for a given delta volume, based on cross-section data through the gorge between Willow Flat and the proposed damsite (provided by Chris Dunlop, Maunsell, pers. comm.).

The growth rate of the delta will depend on the inputs of bedload and the coarser sand fractions carried in suspension, which – as detailed in sections 3.6-3.8 – can be expected to vary considerably on a yearly basis (from zero to several hundred thousand m³) in relation to flood incidence and longer term factors controlling coarse sediment generation and supply upstream (such as earthquakes and rockfall-dams). We estimated a long-term average supply of delta-grade sediment of ~ 80,000 m³/yr. This was assumed to comprise 40,000 m³/yr bedload (as in section 5.6) and 40,000 m³ of suspended sand⁴. As in section 5.6, we estimate a factor-of-two uncertainty on these figures. Assuming this long-term average sediment input and a reservoir operating level of 70 m (above mean sea level), the tipping face would advance 1.4 km downstream from Willow Flat after 5 years, 6.1 km after 100 years, and 8.1 km after 200 years (Figure 11). In comparison, the dam would be some 17 km downstream of Willow Flat. The projections beyond 100 years are likely to underestimate the tipping face position because the model used did not allow for lake-bed deposition beyond the delta. More detailed modelling is recommended should the proposal advance to the next stage.

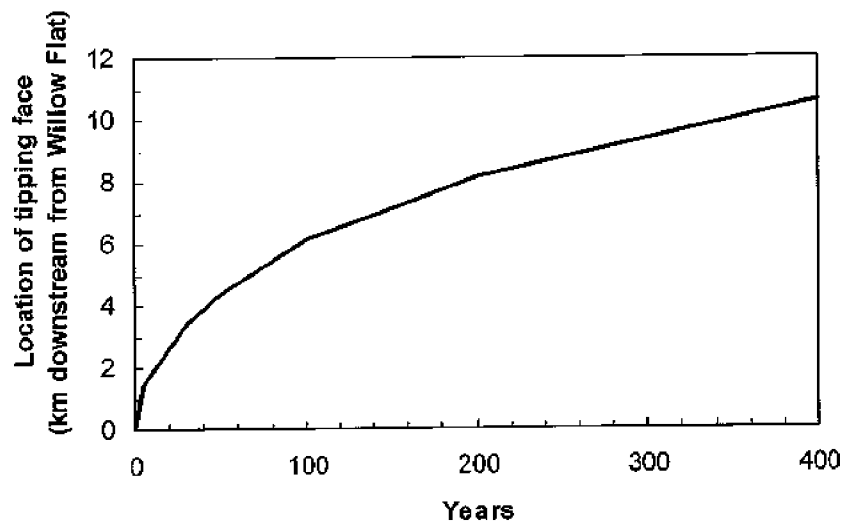


Figure 11: Location of delta tipping-face downstream from Willow Flat with time.

6.2. Effects on river channel downstream

The main downstream geomorphic impacts of the proposed dam will relate to the almost complete interruption of the bedload supply. Since the proposed reservoir will have limited operating water storage, it will function as a run-of-river system during

⁴ The 40,000 m³/yr suspended sand load figure is based on the assumption that sand coarser than 0.25 mm (Medium sand and coarser) would settle on the delta forset. From Table A2.1, this represents 6.4 % of the 1 Mt/yr suspended load. Assuming a bulk density of 1.6 t/m³ for sand deposits, the volumetric sand deposition rate = 6.4 % x 1 Mt/yr / 1.6 t/m³ = 40,000 m³/yr.

freshes and floods. Thus it will not impact on the sediment transport capacity downstream, only the sediment supply.

In consequence, the river downstream from the dam will scour into its bed, initiating a downstream-propagating response that will be arrested either when it exposes bedrock in the channel bed or develops a stable cobble armour. Some degree of surface armouring already occurs downstream of Kakariki (section 3.7.4). To some extent, this reflects local areas of high transport potential (i.e., high velocity zones), but we also expect that the extent of armouring will, under the present regime, vary depending on the presence or absence of bedload pulses working down the river.

Using the hydraulic geometry and bed-material size-grading data from the Raupunga gauging site with Broah's (1989) method, we estimate that the river would need to scour ~ 0.4 m into its bed material to form an armour that would be stable during an annual flood, 1.1 m for a ten year flood, and 2.4 m for a 50 year flood (Table 3)⁵. Since the depth of bed-material above Papa bedrock along the lower river is variable but appears to average ~ 2 m, these scour depths suggest that the river will likely flush its bed material from most areas before a stable armour could form but this may take several decades to occur. When this response is complete, it is expected that the lower river would appear similar to many of its upstream bedrock-channel reaches as they appear today – with patches of exposed bedrock and coarsely armoured patches (Figure 12).

Table 3: Estimated stable armour size and maximum scour depths at Raupunga gauging reach, based on method of Broah (1989), assuming a dimensionless threshold stress of 0.058.

Event	Discharge (m ³ /s)	Bed shear stress (N/m ²)	Minimum stable armour size (mm)	Scour depth (m)
Mean annual flood	830	39	41.5	0.36
10-yr flood	1350	53	56.4	1.1
20-yr flood	1580	58	61.7	1.6
50-yr flood	1870	65	69.2	2.4
100-yr flood and maximum on record	2200	72	76.7	3.3

⁵ These scour depths should be viewed as maximum values since our observations at the gravel-extraction sites showed that there are cobbles on the river bed coarser than were included in our bed-material samples (even though these weighed up to a tonne!); however, it is not clear if these large cobbles exist in sufficient numbers to influence the armour layer.



Figure 12: Contrasting reaches of the present-day Mohaka channel that illustrate how the channel might change downstream of the proposed damsite. Left: with largely alluvial bed and gravel bars. Right: a largely bedrock reach with sparse well-armoured patches.

After about 200 years, when the river would naturally begin bypassing bedload past the dam, the lower river could be expected to return to something like its current state. Again, there would be a time lag as the gravel migrated downstream and bed storage was built-up again.

Artificial gravel bypassing of the reservoir would avoid this effect (see section 7).

6.3. Effects on gravel extraction

Following dam commissioning, the supply of greywacke gravel to the reach downstream from the dam will be totally cut off. Thus the ability to extract gravel from the river will be increasingly impacted, both in terms of supply and accessibility, and eventually the resource will disappear over the 40-50 year time-frame discussed below.

6.4. Effects on mouth

There would be time lag before the bedload supply deficit affected the mouth. It duration would depend on the extent of gravel removal from storage. Without armouring, and assuming gravel storage in the channel bed between the dam and the coast of 1.8 Mm³ and a long-term average bedload supply to the lower river of 40,000 m³/yr, then the lag time might be of the order of 40-50 years (Table 2). With armouring, the deficit would be felt sooner but its development would be spread out in time. Either way, the ultimate effect will be a cessation of the bulk of the Mohaka's supply of coarse sand and gravel to the mouth and adjacent beach.

At that stage, two main morphological responses are expected at the mouth and estuary. First, since the flood regime would remain unaffected, gravel will be flushed from the estuary and it should become deeper, extending further upstream, probably about another 1.3 km beyond the mouth bridge, assuming that the bedrock profile beneath the current river bed is parallel to the current river profile. As a consequence, the estuary should become larger and more tidal and saline on average, with a larger tidal prism. The estuary would be more navigable as a waterway.

Second, in the long term due to the cessation of the river gravel supply, it is expected that the river mouth will become sandier overall. There will always be accommodation space at the river mouth for any sand and gravel drifting along the coast to collect in, so it is expected that with time the Mohaka gravel will drift eastward and the space will be filled with mainly sand drifting alongshore from the west. It is not clear how long this replacement process would take, and it may well be that a coarse lag of cobbles remains. An estimated minimum time is about 30 years, corresponding to the average residence time of the river bedload in the river mouth bar system (Table 2). Thus the cumulative time lag after dam construction might be of the order of 80 years before gravel storage in the lower river and at the mouth was depleted.

A change to a sand-dominated river mouth would lead to several morphological changes:

- The beach /bar would be lower in profile
- The outlet channel would tend to be wider, shallower, and less stable in form
- In consequence, the backshore cliffs (and access track to the east side beach) would be more prone to wave attack

- But also, countering the above, the mouth would be less prone to northward migration
- The beach will become more dissipative, with waves breaking by spilling over a broader nearshore rather than the breakers plunging at a sandy-gravel step as at present.

It is not expected that these changes would impact on the Kahawai fishery directly, since Kahawai frequent sand-dominated river mouths (e.g., Motu, Wakari Rivers) as well as gravel ones (Don Jellyman, NIWA, pers. comm.), but the wider mouth and lower bar may render access to the outlet channel more difficult and less safe during heavy wave conditions. Possibly the longer, deeper, more saline estuary might encourage the Kahawai to move further upstream from the mouth

The sand-dominated Waikari River mouth would seem to be a reasonable analogue of what the Mohaka mouth might become (Figure 13).

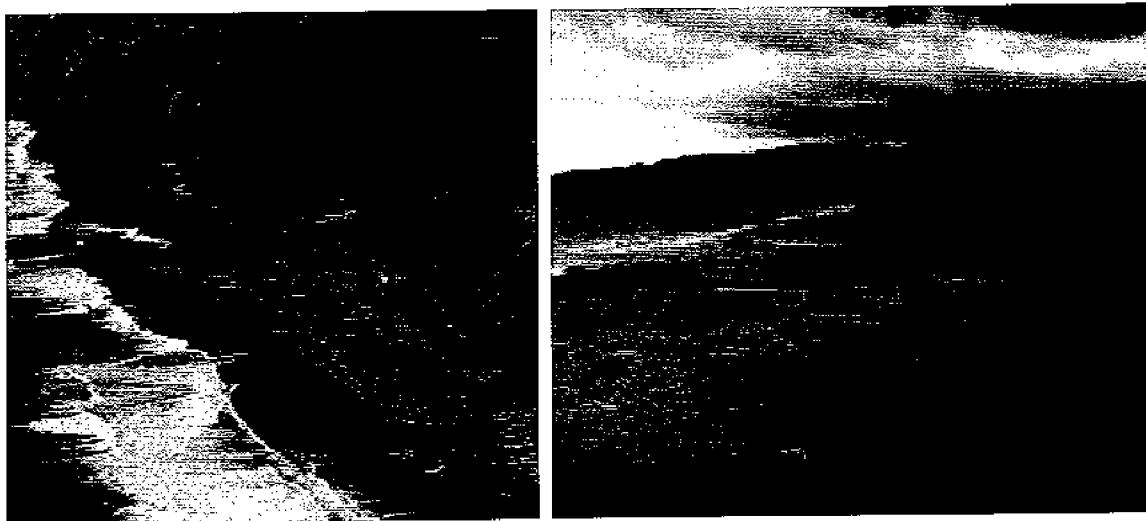


Figure 13: The gravely Mohaka River mouth (left) compared with the mainly sandy Waikari River mouth (right).

6.5. Effects on coast

We do not expect any severe geomorphic impacts on the coast away from the river mouth. The slowly eroding cliffed shore between Mohaka and Wairoa already has only a thin and patchy cover of beach material that appears too sparse to play any significant role in buttressing the slope toes against wave attack. The situation is similar west of the Mohaka, and since along this shore the net drift is eastwards the influence of the Mohaka should not extend far westward.

At the Wairoa barrier, we expect that there would be a time lag of about 80 years before any dam-induced deficit in sediment supply appeared. Thereafter, we consider that there is adequate storage on the barrier (Table 2) to buffer a 100-200 year hiatus in the Mohaka bedload supply. Even without allowing for abrasion there is some 260 years worth of Mohaka bedload in storage, and when abrasion is considered the storage is more likely equivalent to over a 1000 years of Mohaka bedload. While this buffering would result in some thinning of the Wairoa barrier, we do not consider that it should reduce in height and become less functional in protecting the estuary.

We consider that the coast further east from Wairoa – which also has a large amount of beach material stored in the beach ridge system - would not experience any Mohaka effects due to the updrift buffering.

If the proposal proceeds to the next stage, it is recommended that a more detailed investigation be made to verify these predictions. This should include a more detailed analysis of beach sediment storage, longshore transport potential, abrasion, and longshore sorting.

7. Mitigation measures

The main sediment-related impacts of the proposed dam stem from the interruption to the supply of bedload to the lower river. A key impact would be on gravel extraction, while there may be further concerns associated with the eventual flushing of gravel from the bed downstream and follow-on, albeit delayed effects at the mouth and alongshore. With regard to the gravel resource, there are several mitigation options that may be possible:

- Extracting gravel from the delta at the upstream end of the reservoir
- Barging gravel from the delta downstream along the reservoir
- Routing gravel through the reservoir during floods.

7.1. Extracting from the delta

Extracting gravel from the delta that would form at the head of the reservoir in the Willow Flat area would be feasible so long as road access could be maintained and the haulage costs remained economic. Since the bedload supply in any year can vary from zero to several hundred thousand cubic metres, it would be pragmatic to allow a

reasonable stock to build so that a steady extraction rate could be maintained. Keeping the gravel delta small would keep the extraction site near Willow Flat with handy road access. The downstream sorting by grain size that naturally occurs on deltas may be advantageous.

It may be possible to maintain this in perpetuity by extracting sufficient gravel to keep a gravel/sand transition point at the head of the reservoir, even after the reservoir filled with finer sediment.

7.2. Barging from delta to dam

Using a barge to transfer gravel from the delta at Willow Flat to the dam is an option. Once loaded onto a barge, floating gravel down the reservoir would be a far more efficient process than transporting it by traction on the river bed (as occurs naturally). The barge could be dumped over a hopper upstream of a sluice gate on the dam abutment, with the gravel then flushed to an apron beside the river downstream of the dam. Some of the gravel could then be collected by the gravel industry and some returned to the lower river by bulldozer. The share between river and extraction could be decided by the regional council as at present. This would, in essence, preserve the status quo, except that extraction activities could be focussed at the dam site.

Assuming an average accumulation rate of $\sim 40,000 \text{ m}^3/\text{yr}$ on the delta, a 1000 m^3 capacity barge would need less than a weekly turnaround to maintain the gravel bypassing.

In time as the reservoir filled with finer sediment (after ~ 100 yrs), barging may become impractical due to the shallowing channel and increased velocities.

7.3. Gravel routing through a dewatered reservoir

If it is possible to drain the reservoir in advance of natural floods, restoring riverine conditions, it may be possible to route the river's bedload (along with its suspended load) through/past the dam. This has the advantage that it would essentially maintain the present situation and the reservoir would never fill with sediment. It would be necessary to do this relatively often to avoid building-up too large a deposit of both coarse and fine sediment. Ackers (2006) assessed the practicality of this and was not enthusiastic, citing concerns with flood warning lead time, the time to drain the reservoir, and the time required to refill the reservoir (~ 1 week of mean flow would be required to refill the reservoir to operating level after a dewatering event). Also,

there would likely be a limit on dewatering rates to avoid issues with hillslope stability along the reservoir walls.

A variation would be to leave the reservoir drained until sufficient floods competent to entrain gravel occurred naturally. This would require the reservoir to be out of commission for extended periods (perhaps several years at a time) and for something like one quarter to half of its life if it was desired to bypass all the incoming bedload. This is based on our estimates in section 3.8 that the maximum bedload transport capacity is of the order of 2-4 times the estimated long-term average bedload supply rate. Large volumes of silt would also be sluiced while the reservoir was dewatered, and the river would likely flow very dirty even at low flows, due to the ongoing slumping of silt banks.

Such routing practices are employed in reservoirs overseas (Morris and Fan, 1997). They have the greatest chance of success in hydraulically small reservoirs (where the flood volume is large relative to the reservoir storage) and where floods are predictable and/or they tend to occur in a wet season.

Flushing sediment deposits with artificial floods would not appear to be practical. This is because there is no large water storage facility upstream from which to release flows competent to entrain gravel.

7.4. Examples of reservoir sediment management in New Zealand and elsewhere

Sediment bypassing is not a common feature of large hydro dams in New Zealand, perhaps because most have sediment-infilling lives of several hundreds to thousands of years. The Mangahao is the only example where sediment flushing is done on a regular basis. There, the reservoirs are dewatered and the motivation is more to clear the suspended load than to transfer the bedload.

In Lake Roxburgh, silt and sand-grade sediment is flushed from the reservoir during natural floods when the water level is artificially drawn down to increase velocities. The main motivation for this has been to transfer sediment from the delta at Alexandra into deeper water, thereby lowering bed levels - and consequently flood levels - at Alexandra. This practice appears to have stabilised the volume of Lake Roxburgh, but this will only be the case while Lake Dunstan upstream continues to trap large volumes of sediment. Lake Dunstan is expected to begin bypassing much of its sediment inflow (over 2 million tonnes per year) within about 100 years. A sustainable sediment management plan has yet to be developed for the Clutha hydro system but doing so is a condition of the current resource consent to Contact Energy.

There are no examples of bedload bypassing in New Zealand. Overseas, sediment routing or flushing (during artificial floods) is often employed to clear fine sediment, while there are numerous examples where gravel and coarse sand is extracted for aggregate from reservoir deltas (e.g., Taiwan, Spain, Israel, California – as reported by Owens et al., 2005). Successful attempts at routing both suspended sediment and bedload have been reported for the old Aswan Dam on the Nile River (Kondolf, 1997), the Bhagurk Reservoir on the Yeluard River in India (Stevens 1936), and reservoirs on the Inn River in Austria and Germany (Hack, 1986). Gravel feeding downstream of dams is reported from several rivers in the US and from the Rhine River in Germany (Morris and Fan, 1997). A common motivation is to stabilise bed levels and/or to preserve salmon spawning gravels (e.g., Kondolf and Matthews, 1993). In the case of the Rhine River, hopper-bottom barges are used to transfer gravel to the deposition site. The gravel is mined from floodplain deposits handy to the river.

8. Conclusions

The main conclusions of this report are:

- The Mohaka River currently river carries a suspended load of ~ 1 Mt/yr past the proposed damsite at Kakariki. This load comprises ~ 20% clay, 61% silt, and 19% sand.
- The current average annual bedload flux past Raupunga is calculated to be in the range 14-24,000 m³/yr, but the river has the capacity to transport up to 78-164,000 m³/yr on average. The current bedload flux figures are consistent with declining bed levels recorded at the Raupunga flow gauging section and the declining gravel availability reported by the major extracting company. The bedload comprises ~ 15% sand and 85% gravel, with 93% of the gravel being greywacke. The gravel is sourced mainly from the tectonically-disturbed greywacke/argillite terrain of the middle catchment. This area has a history of rock-falls that have periodically interrupted the delivery of gravel to the lower river and have formed gravel storage zones. Transient supply, storage, and transfer events have meant that bedload delivery to the lower river can be highly variable over decadal and longer time scales.
- The Mohaka is a principal source of high-quality greywacke aggregate for the central East Coast region. The largest extraction has occurred from sites downstream from Raupunga. Total extraction rates from the river averaged ~ 32,000 m³/yr from 1963-1995, but since 2000 have averaged ~ 23,000 m³/yr. The reduced take partly reflects a waning re-supply to the extraction beaches

from upstream and partly a market-driven preference for the older, more clay-rich gravels found in Pleistocene terrace deposits.

- The Mohaka River mouth shows dynamic behaviour, with the outlet migrating up to ~ 1 km to east or west of the valley centre line, but it appears to have held the same general form for at least the past century. The river's bedload drifts mainly eastward along the coast, driven by a prevailing southerly-sourced wave climate and as evident by the strongly eastward-skewed gravel content of the beach material. What remains after abrasion has worn most of the gravel down to granule and sand size is stored in the broad beach barrier at Wairoa and in beach ridges further east in the Whakaki area.
- The generally thin, patchy wedge of beach overlying the wave-cut platform in front of the high unstable Papa mudstone cliffs to east and west of the Mohaka mouth provides little protection to the cliff toes against wave attack.
- A dam built as proposed near Kakariki would initially trap sediment at a rate of ~ 0.5 Mm³/yr. It could be substantially full of sediment after ~ 100 years but the reservoir likely would not return to fully riverine conditions, bypassing its bedload, for ~ 200 years.
- Downstream from the dam, the river would generally flush its bed material from most areas, leaving exposed bedrock, although this condition would take several decades to develop. A stable cobbly armour layer would remain in patches. After about 200 years, this process would reverse as the river began naturally bypassing bedload over the dam.
- Some 40-50 years would likely pass before any effects appeared at the mouth. Thereafter, the mouth would likely evolve slowly towards a more sandy system similar to the mouth of the nearby Waikari River, with a wider, shallow outlet channel, and a lower beach. A sandy mouth system would tend to be less stable in form, and the backshore may be more prone to wave attack. The estuary would be deeper and would extend further upstream.
- No significant impact is expected for the steep shore to the east and west of the river mouth, since these are already fronted by a thin beach affording little protection against undercutting by storm waves.
- Eastward at Wairoa, after ~ 80 years there may be a gradual decline in the width of the beach barrier, as the deficit in Mohaka bedload is absorbed by the

storage there. However, this barrier is not expected to disappear or even lose its protective function since the storage there is estimated as the equivalent of over 1000 years of Mohaka bedload supply once an allowance is made for abrasion of the Mohaka sediment by littoral processes.

- Possible mitigation measures to continue servicing the gravel extraction demand include shifting the extraction site to the delta that would form near Willow Flat, barging gravel down the reservoir from the delta and tipping it over the dam to the riverbank downstream, or routing both the inflowing suspended load and bedload through the reservoir during natural floods. The latter would require a low-level tunnel at the dam and adequate warning to draw-down the reservoir enough to restore riverine conditions in advance of floods.

9. Recommendations

Should the Kakariki Dam proposal proceed to the next stage, then we recommend the following more-detailed investigations:

- Numerical modelling to provide a more reliable estimate of the reservoir life and the arrival time of the sediment delta at the dam. This should consider the profile and progradation rate of the sediment delta, the reducing trap efficiency, and possible operations to assist sediment bypassing under partial or full reservoir draw-down conditions during natural flood events.
- Numerical modelling to verify the predictions and time-frame of the channel bed response downstream of the dam. This should include investigations of the thickness of gravel overlying bedrock at key locations.
- Refinement of the coastal sediment budget of northern Hawke Bay, including a more detailed analysis of beach sediment storage, longshore transport potential, abrasion, and longshore sorting.

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**Appendix 1: Bed material sampling in Lower Mohaka River,
November 2005**

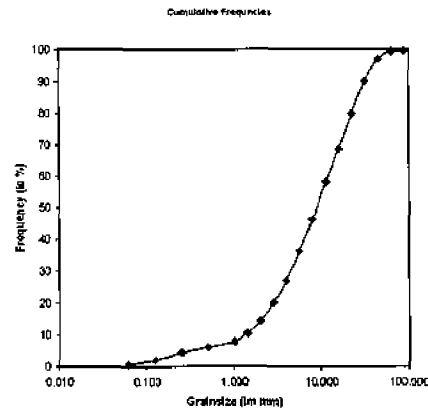
Table A1.1: Results of sieving and lithology analysis of bulk bed sample 1 from 1 km upstream of Mohaka River mouth, November 2005.

Sample Mohaka 1: 1 km u/s mouth
 Analyst: J. Lind Jan-06
 Checked by: M Hicks Ap 06

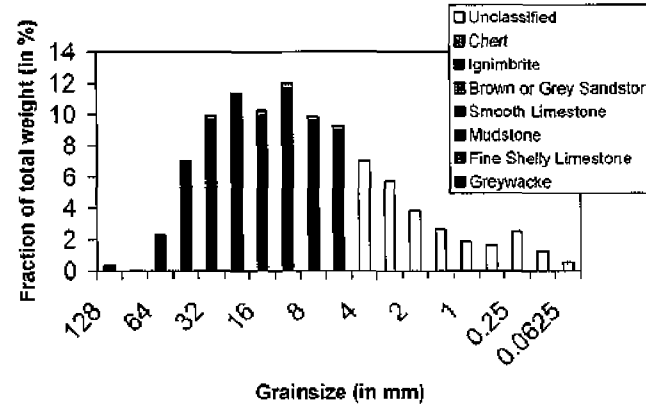
Total Weight (kg): 512.45
 Weight > 32 mm (kg): 53.8 (unspllt)
 Weight < 32 mm (kg): 458.65
 Split for Lab (kg): 11
 Scale Factor: 41.695

Size (mm)	Size (phi)	Wgt. Retained (g)	Rescaled Weight (g)	Wgt. (%)	Wgt. (cum. % finer)
181.019					
128.000					100
90.510			1990	0.392	99.608
64.000			1394	0.272	99.336
45.255			12240	2.388	96.948
32.000			35778	6.982	90.011
22.627		1203	52219.63	10.19	79.82
16.000		1383	57664.81	11.25	68.57
11.314		1287	52828.14	10.31	58.26
8.000		1477	61584.10	12.02	46.24
5.657		1214	50616.20	9.878	36.36
4.000		1141	47574.31	9.294	27.08
2.828		856	36108.26	7.048	20.03
2.000		702	29270.21	5.712	14.32
1.414		468	19513.47	3.808	10.51
1.000		328	13592.72	2.652	7.86
0.707		0	0	0	6.932
0.500		228	9506.564	1.855	6.005
0.354		0	0	0	5.183
0.250		202	8422.482	1.644	4.361
0.177		0	0	0	3.086
0.125		311	12967.29	2.53	1.831
0.088		0	0	0	1.18
0.062		160	6671.273	1.302	0.529
< 0.062		65	2710.205	0.529	

Total Weight 11013 512654 100



Distribution of Lithologies by grainsize



Size (mm)	Size (phi)	Lithology																Total						
		Greywacke		Fine-shelly Limestone			Mudstone			Smooth Limestone			Brown or grey Sandstone			Ignimbrite			Chert			Unclassified		
		Count	%	Count	%	% of total	Count	%	% of total	Count	%	% of total	Count	%	% of total	Count	%		% of total	Count	%		% of total	
128																								
90.509668			0.00	0.00		0.00	0.00		1	1.00	0.39		0.00	0.00		0.00	0.00		0.00	0.00		0.00	0.00	1
64		2	0.40	0.11	3	0.00	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00	0.00	5	
45.254834		45	0.90	2.16	4	0.08	0.14		1	0.02	0.05		0.00	0.00		0.00	0.00		0.00	0.00		0.00	0.00	50
32		395	0.98	6.86	0.01	0.07	3	0.01	0.05		0.00	0.00	3	0.01	0.05		0.00	0.00	1	0.00	0.02		0.00	402
22.627417		33	0.32	0.34	1	0.00	0.00	1	0.03	0.28		0.00	0.00	1	0.03	0.28		0.00	0.00		0.00	0.00	36	
16		109	0.39	11.15	0.01	0.10		0.00	0.00		0.00	0.00	1	0.01	0.10		0.00	0.00		0.00	0.00		0.00	109
11.3137085		299	0.36	9.91		0.00	0.00		0.00	0.00		0.00	0.00	9	0.03	0.30		0.00	0.00	3	0.01	0.10		311
8		347	0.36	11.55	0.00	0.00		0.00	0.00		0.00	0.00	2	0.01	0.07	1	0.00	0.00	11	0.03	0.37		0.00	351
5.65685425		527	0.36	9.45		0.00	0.00	3	0.01	0.03		0.00	0.00	5	0.01	0.09		0.00	0.00	16	0.03	0.29		551
4		737	0.36	8.87		0.00	0.00		0.00	0.00		0.00	0.00	8	0.01	0.07		0.00	0.00	28	0.04	0.34		771
2.82842712			0			0							0											7.05
2			0			0							0											5.71
1.41421356			0			0							0											3.81
1			0			0							0											2.65
0.5			0			0							0											1.86
0.25			0			0							0											1.64
0.125			0			0							0											2.53
0.0625			0			0							0											1.30
< 0.062			0			0							0											0.53

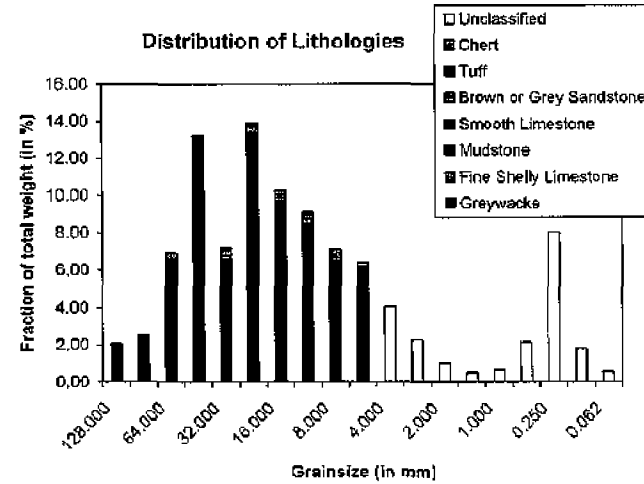
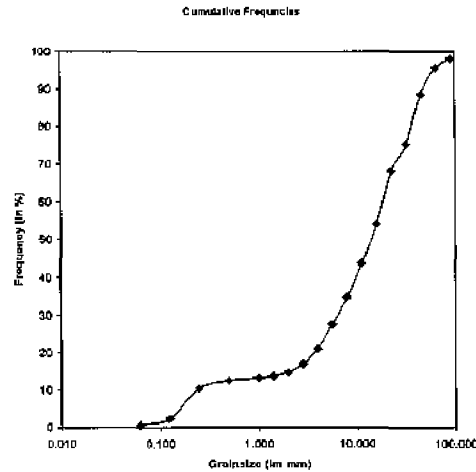
Table A1.2: Results of sieving and lithology analysis of bulk bed sample III from 3 km downstream of SH2 bridge, November 2005.

Sample **Mohaka III: 3 km d/s SH2**
 Analyst J. Bind Jan-05
 Checked M Hicks Apr-06

Total Weight (kg): 269.5
 Weight > 32 mm (kg): 67.1 (unsplit)
 Weight < 32 mm (kg): 202.4
 Split for Lab (kg): 13.565
 Scale Factor: 14.921

Size (mm)	Size (phi)	Wgt. Retained (g)	Rescaled Weight (g)	Wgt. (%)	Wgt. (cum. % finer)
181.019					100
128.000					
90.510			5800	2.078	97.92
64.000			6800	2.523	95.4
45.255			18700	6.939	88.46
32.000			36000	13.36	75.1
22.627		1302	19428.92	7.208	67.89
16.000		2504	37361.58	13.86	54.03
11.314		1874	27961.49	10.38	43.65
8.000		1643	24514.8	9.096	34.56
5.657		1279	19083.64	7.081	27.48
4.000		1189	17427.44	6.467	21.01
2.828		731	10907.07	4.047	16.96
2.000		409	6102.588	2.264	14.7
1.414		184	2745.418	1.019	13.68
1.000		87	1298.105	0.482	13.2
0.707			0	0	12.87
0.500		119	1775.569	0.659	12.54
0.354			0	0	11.48
0.250		384	5729.569	2.125	10.41
0.177			0	0	6.381
0.125		1457	21739.54	8.067	2.347
0.099			0	0	1.448
0.062		325	4849.244	1.799	0.548
< 0.062		98	1477.154	0.548	

Total Weight 13565 269500 100



Size (mm)	Size (phi)	Lithology																Total									
		Greywacke			Fine-shelly limestone			Mudstone			Smooth Limestone			Brown or grey Sandstone			Tuff			Chert			Unclassified				
		Count	%	% of total	Count	%	% of total	Count	%	% of total	Count	%	% of total	Count	%	% of total	Count		%	% of total	Count	%		% of total			
128.000		2	1.00	2.08	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	0.00	2
90.510		10	0.31	2.28	0	0.00	0.00	1	0.09	0.28	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	0.00	11
64.000		70	0.88	8.97	0	0.00	0.00	1	0.01	0.89	0	0.00	0.00	0	0.00	0.00	5	0.08	0.43	4	0.05	0.35	0	0.00	0.00	80	
45.255		104	0.95	12.93	1	0.00	0.00	0	0.00	0.90	1	0.01	0.72	0	0.00	0.00	4	0.04	0.49	0	0.00	0.00	0	0.00	0.00	110	
32.000		42	0.91	6.58	1	0.02	0.16	0	0.00	0.00	0	0.00	0.00	2	0.04	0.31	1	0.02	0.16	0	0.00	0.00	0	0.00	0.00	46	
22.627		197	0.96	13.26	0	0.00	0.00	1	0.00	0.07	0	0.00	0.00	5	0.02	0.34	1	0.00	0.00	0	0.00	0.00	0	0.00	0.00	206	
16.000		195	0.93	9.84	2	0.00	0.00	1	0.00	0.05	0	0.00	0.00	12	0.06	0.58	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	213	
11.314		222	0.93	8.41	2	0.01	0.08	0	0.00	0.00	0	0.00	0.00	7	0.03	0.27	0	0.00	0.00	9	0.04	0.34	0	0.00	0.00	240	
8.000		148	0.88	6.24	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	3	0.02	0.19	0	0.00	0.00	17	0.10	0.72	0	0.00	0.00	168	
5.657		245	0.92	5.98	1	0.00	0.00	4	0.02	0.10	0	0.00	0.00	3	0.01	0.07	1	0.00	0.02	11	0.04	0.27	0	0.00	0.00	265	
4.000																											
2.828																											4.05
2.000																											2.26
1.414																											1.02
1.000																											0.48
0.500																											0.68
0.250																											2.13
0.125																											6.06
0.062																											1.80
< 0.062																											0.54

Table A1.3: Results of Wolman pebble counts and lithology counts of bed surface samples, Lower Mohaka River, November 2005

Size	Station 1 (1 km u/s mouth)							Station 2 (Kakariki)							Station 3 (3 km d/s SH2)								
	Total	Proportion by lithology						Total	Proportion by lithology						Total	Proportion by lithology							
	GW	CH	SL	MS	L	SST		GW	CH	SL	MS	L	SST	MC	Total	GW	CH	SL	MS	L	SST	MC	
512 mm	100.00%						100.00%																
360	100.00%						100.00%						100.00%										
256	100.00%						99.67%	66.67%						33.33%									
181	100.00%						89.68%	62.50%					12.50%	25.00%									
128	100.00%	50.00%			50.00%		93.40%	57.50%		12.50%	2.50%		25.00%	2.50%	100.00%	83.33%				8.33%		8.33%	
80	99.36%	100.00%					80.20%	66.07%	1.79%	3.57%			25.00%	3.57%	96.14%	71.43%				3.57%	10.71%	10.71%	3.57%
64	97.43%	91.11%	2.22%	2.22%		4.44%	61.72%	75.36%	1.82%	1.82%			20.00%		87.14%	82.69%			3.85%	1.92%	3.85%	7.69%	
45	82.96%	96.97%				3.03%	43.56%	69.29%	1.79%	1.79%			7.14%		70.42%	88.71%	3.23%			1.61%	3.23%	3.23%	
32	61.74%	98.46%				1.54%	25.08%	97.37%					2.63%		50.48%	87.50%	2.78%	2.78%	1.38%			5.56%	
23	40.84%	96.88%		1.56%	1.56%		12.87%	100.00%							27.33%	100.00%							
16	20.26%	100.00%					6.93%	100.00%							6.97%	100.00%							
11	8.36%	100.00%					1.65%	0.00%							0.96%								
8	4.50%	100.00%					1.65%	100.00%							0.96%	100.00%							
6	0.00%						0.00%								0.00%								
4	0.00%						0.00%								0.00%								
3	0.00%						0.00%								0.00%								
2	0.00%						0.00%								0.00%								
Percentiles	mm						mm						mm										
D95	60.33						142.17						86.19										
D90	53.41						116.90						71.33										
D84	46.16						99.61						59.91										
D75	39.60						81.77						49.56										
D65	33.72						68.00						41.02										
D50	26.32						50.99						31.77										
D25	17.33						31.92						21.58										
D10	14.13						24.71						18.04										
D5	8.36						14.09						13.21										
Dmax(y-axis)	140.00												300.00										
Stats from Moments																							
Mean (mm)	25.46						49.18						32.68										
SD (phi units)	0.84						1.00						0.81										
Skewness	0.32						0.36						-0.05										
Kurtosis	2.73						3.03						2.60										

Lithology	
GW	Greywacke
CH	Red-brown chert
SL	Fine shelly limestone
MS	Mudstone
L	Smooth limestone
SST	Brown or grey sandstone
MC	Mudstone concretions

Appendix 2: Suspended sediment flood sampling for particle size

Field notes from suspended sediment sampling

Mohaka River at Raupunga – Flood event April/May 2006

Between the 28th April and 3rd May a moderate size flood occurred in the Mohaka River. Levels rose slowly from about midday on the 28th until about 6 pm on the 29th when the rate of rise increased significantly.

The river peaked at a level of about 7.5m (~ 1300 m³/s) at about midnight on the 30th April. From this point the river was in steady recession to a level of about 3.5m on the 3rd May. At about 6 am on the 3rd localised heavy rain resulted in a second rise in levels which peaked (4.6m) at about midday on the 3rd. The river has been in steady recession since.

A total of 6 samples for suspended sediment concentration analysis (SSC samples) and 6 samples for particle size analysis (PS samples) were obtained between 30th April and 2nd May. The PS samples were obtained immediately after each of the SSC samples. Two sets of samples were obtained on the rising limb of the hydrograph close to the peak, two sets were obtained on the falling limb, near to the peak and a further two sets further down the hydrograph the day before the level rose again to the second peak.

Samples No..	Date	Start time	End time
1 SSC	30.04.06	1300	1400
1 PS		1405	1450
2 SSC	30.04.06	1500	1535
2 PS		1540	1550
3 SSC	01.05.06	0815	0850
3 PS		0900	0925
4 SSC	01.05.06	1000	1020
4 PS		1035	1050
5 SSC	02.05.06	0800	0835
5 PS		0840	0910
6 SSC	02.05.06	1340	1415
6 PS		1420	1445

All SSC samples were collected using the Equal Width method, that is, at 5 m intervals across the river, and using a D49 sampler. Transit times were estimated by trial and error in the deepest part of the section prior to each sample run, with the rate then kept constant for each vertical across the traverse. The PS samples were also

collected at equal intervals across the section using the same transit times and sampler as for the SSC samples. Both the SSC and PS samples were bulked into two single samples for each set of measurements.

For the first 4 samples it was very difficult to reach the bottom with the D49 sampler due to the high velocities and floating debris causing the sampler to float downstream. The smallest nozzle (3.2 mm) was fitted to the sampler in an attempt to reduce the filling time however it was not particularly successful as it was still not possible to feel the bed.

On the rising limb of the hydrograph and until the water level had dropped to below a level of about 6 m the river was carrying a large amount of floating debris, ranging in size from small sticks and pumice to tree trunks in excess of 6m in length. Most of this debris appeared to be old in nature and there was very little fresh vegetation evident.

Results of suspended sediment concentration analysis

Sample No.	Bottle full (g)	Bottle empty (g)	Nett sample (g)	Sediment after filtering (g)	Sediment before filtering (g)	Nett sediment (g)	PPM
1	3540.2	504.0	3036.2	208.0949	193.8444	14.2505	4693.5
2	3676.3	505.6	3170.7	265.5453	251.1722	14.3731	4533.1
3	4642.3	630.0	4012.3	339.8077	326.1485	13.6592	3404.3
4	4199.3	506.0	3693.3	280.8173	267.8990	12.9183	3497.8
5	3820.5	504.0	3316.5	209.2234	204.4846	4.7388	1428.9
6	3565.6	506.0	3059.6	177.2764	173.4599	3.8165	1247.4

The sample 1 SSC, 4694 mg/l sampled at 1041 m³/s, was the highest concentration sampled from the Mohaka. The previous largest SSC was 3648 mg/l sampled at 764 m³/s on 10 August 1991.

Geoff Holland
NIWA, Napier
12.05.06

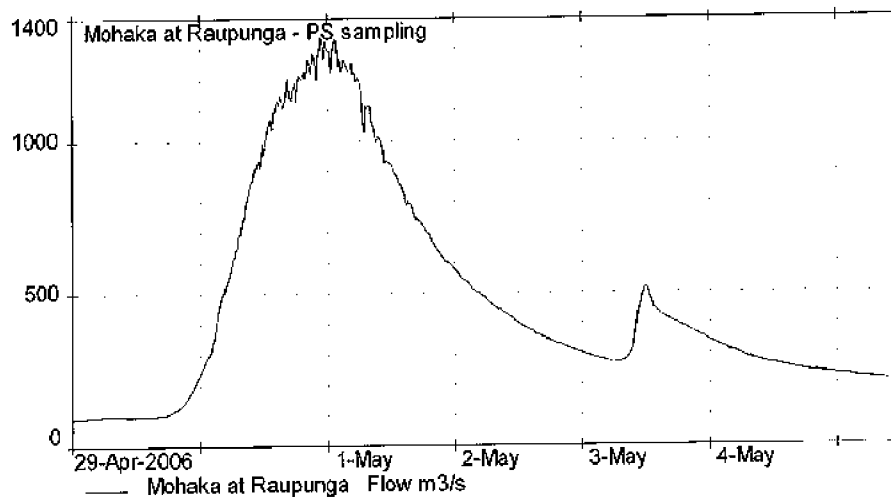


Figure A2.1: Hydrograph of the 29 April – 3 May event sampled for SSC and PS.

Laboratory analysis

Method

The particle size analysis was done by NIWA’s Sedimentology Laboratory at Greta Point, Wellington. The samples were allowed to settle before excess water was decanted off. Before analysis, the samples were treated with 0.1% Calgon deflocculating agent. The samples were then separated into coarse and fine fractions by washing the fines through a 250 mm sieve. The fines fraction was analysed using a SEDIGRAPH. The coarse fraction was wet-sieved. The sample dry mass was measured at the end of the analysis.

Results

Table A2.1: Suspended sediment size gradings.

	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6	Event overall
Dry mass (g)	5.506	13.947	10.744	8.309	4.422	3.046	690,000 t
D (µm)	Cumulative % finer						
1000	100	100	100	100	100	100	100
500	99.0	99.2	99.2	99.5	98.7	97.0	99.0
250	93.7	93.8	92.6	95.1	94.1	90.4	93.6
125	92.3	92.6	91.4	94.2	90.0	86.3	92.0
63	80.8	80.9	79.4	81.8	78.3	78.9	80.5
32	60.5	56.3	58.7	59.9	62.2	64.0	59.2
16	43.4	40.2	44.3	44.1	48.0	50.2	43.3
8	29.5	28.1	31.3	30.8	34.6	37.1	30.3
4	18.5	18.3	20.9	20.1	23.7	26.4	19.7
2	10.3	11.3	13.2	12.4	15.3	18.8	12.1
1	5.7	6.3	8.6	8.0	10.7	14.2	7.4
D ₅₀	20.9	24.4	21.0	20.7	17.6	15.8	21.4
% sand	19.2	19.1	20.6	18.2	21.7	21.1	19.5

Event yield size grading

The size grading data for the event of 29 April – 3 May 2006 were combined with the discharge and SSC data to calculate a size grading for the total suspended load over the event (Table 12.1). The steps involved were:

- Generate 2-hourly time-series of water discharge and total SSC by interpolating the discharge record and the sampled SSC record. SSC values at the beginning of the event at 2000 hours on 29 April, at the event peak at midnight on 1 May, and at the end of the event at 0800 hours on 3rd May were generated from a sediment rating relation developed for the event from the samples collected.
- Assign a size grading to each 2-hourly record. The average grading of samples 1 and 2 was assumed to be representative of the rising limb of the event. Similarly, the average grading of samples 5 and 6 was assumed to be representative of the recession after these samples were collected. Between the event peak and 0800 on 2 May, the size grading was linearly interpolated with time from the measured gradings.
- Integrate the suspended load by size fraction through the event, so determining a load-weighted size grading for the event suspended yield.

The event yield size grading is listed in Table A2.1 and plotted in Figure A2.2, along with gradings of the discrete samples. Note a slight but gradual increase in the clay content through the event, while the fine-medium sand content was greatest near the flood peak.

The sampled event, with a peak discharge of $\sim 1300 \text{ m}^3/\text{s}$, has a recurrence interval of ~ 10 years.

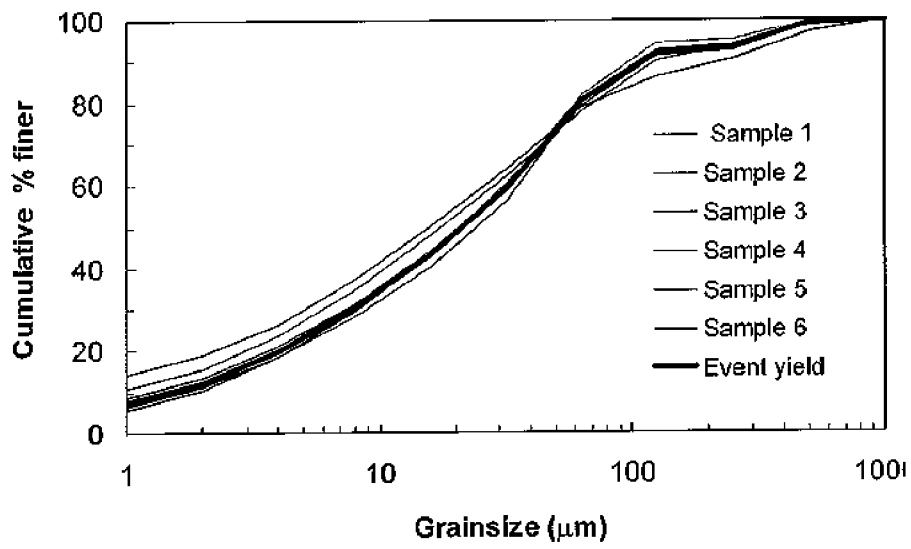


Figure A2.2: Size gradings of the 29 April – 3 May 2006 event SS yield and discrete SS samples.

"JJ"

The proposed Kakariki Hydro Development A Social Impact Assessment - Scoping Report

Prepared for the Project Working Party

by

Taylor Baines & Associates,
Christchurch, New Zealand

and

Tureiti Moxon
Ngati Pahauwera

May 2006

This is the exhibit marked "JJ" referred to in the affidavit of Toro Edward Waaka
affirmed at NAPIER this 17th day of FEBRUARY 2014
before me Signature [Signature]
A Solicitor of the High Court of New Zealand / ~~Justice of the Peace~~

Hilton F. Verry
Solicitor
Napier
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**Whakatauki
(proverb)**

**Maungaharuru ki uta
Tangitu ki te moana
Mohaka Harara Taupunga Opunga Raupunga**

*The boundaries of Ngati Pahauwera stretch in land to the Maungaharuru ranges
and seaward to the coast of Hawke's Bay.*

Our uniqueness lies not in being the same but in our ability to remain united in our differences.

EXECUTIVE SUMMARY

1. Field work was carried out by the two researchers engaged in the Social Impact Assessment during the week 3-7 April 2006. The coverage of the Scoping Phase assessment activities was on interviews with host community residents as well as representatives of regional recreational groups and the Wairoa District Council.
2. Forty-five (45) individuals were interviewed during the Scoping Phase.
3. Interviews explored the range of potential social effects and issues that might arise if the hydro electric development proposal were to proceed, and aimed to establish whether or not, from a social perspective, there are any 'fatal flaws' which would pose exceptional risks to proceeding further.
4. A range of potential social effects and issues was identified. These are summarised in Section 7.
5. A range of potential related development opportunities was identified. These are summarised in Section 8.
6. Our investigations during the scoping phase have not confirmed any specific 'fatal flaws' to further progressing this hydro electric development initiative. However, they have identified or confirmed some challenges ahead which will need to be addressed.
7. From the range of interviews conducted so far, we can conclude that -
 - (1) the potential downsides of this hydro electric development proposal loom much larger in people's minds than the potential development opportunities that might be associated with it;
 - (2) attitudes of those interviewed range from strong opposition or guarded opposition, to being neutral and prepared to keep an open mind, to support for the basic hydro electric proposition, with the balance (amongst those interviewed thus far) perhaps being more towards opposition than support;
 - (3) there are steps which can be taken, and which should be taken before any final decision on whether or not to proceed to a full proposal (see recommendations below).
8. While not wishing to ignore the potential benefits, it is strategically important to consider the basis of present opposition. In general, this comes from three sources -

Regional recreational interests: In the middle reaches of the Mohaka River, the most important issues appear to be (1) the extent to which the lake which forms behind the proposed dam will interfere with the area of the River immediately below the Willow Flat bridge that is popular with less experienced kayakers, and (2) the loss of future opportunity for 'mountain to coast' recreational experiences on the River.

Local landowner interests: Meridian Energy is already aware of the positions that the various landowners adjacent to the dam and lake have adopted, as a result of their one-on-one discussions.

Ngati Pahauwera interests: There is a question of whether, if the majority of the Ngati Pahauwera community see only the risk of losing things that are near and dear to them - rangatiratanga, wairua, food and water - they would express support for hydro electric development on their River. From their perspective, there has been little substance to the discussion of potential development benefits; there has been relatively little effort so far devoted to building and demonstrating trust between Meridian and the wider Ngati Pahauwera community although they know their long history of resource alienation; and there is suspicion amongst some segments that a "divide and rule" agenda is under way.

9. As a result of our Scoping Phase investigations of potential social effects and issues, we make the following recommendations, stated in no particular order of importance.

(1) Meridian Energy Ltd: determine with confidence the relationship between proposed dam height and the extent of impoundment behind the dam, including the zone at the upstream end of the lake where silts and gravels may accumulate and therefore where gravel extraction may have to be considered in future. In particular, determine whether or not it is feasible to avoid the potential 'interference' between the interests of future hydro electric generation and the interests of established in-stream recreation uses.

(2) Meridian Energy Ltd: determine the set of feasible compensation arrangements with private landowners against the perceived risks to project consentability.

(3) The Working Party: negotiate the likely scope, scale and options for delivery mechanism of a fund or revenue stream of financial resource (associated with the hydro electric development proposal) that will create credible opportunities for future social and economic development in the local community. Credibility will depend on sufficient detail and the basis for assurances.

(4) Ngati Pahauwera Section 30 Committee: promote discussion and greater awareness within the iwi of administrative structures in place that may be appropriate for facilitating economic enterprise and community development. Note: this would be just as relevant in the context of final settlement of the iwi land claims.

(5) The Working Party: initiate and resource a programme of communication and knowledge-sharing activities aimed at creating better-informed understanding about the hydro electric proposal, the likely environmental effects (i.e. the outputs of various studies underway at the present time) and the scope, scale and delivery mechanisms for future benefits (as in Recommendation (3) above). Consideration should be given to involving local residents as facilitators of such knowledge-sharing activities and to establishing information resources at places such as local marae, local schools (Mohaka and Kotemaori) and the Ngati Pahauwera Hauora building.

(6) The Working Party: convene feedback discussions with representatives of regional recreation groups on the outcomes of Recommendation (1) above.

(7) The Working Party: provide progress briefings to other stakeholder groups (e.g. Wairoa District Council, etc.)

1 The Project and brief for this Social Impact Assessment (SIA)

1.1 Basic project description

In consultation with Ngati Pahauwera, Meridian Energy has adopted the name Project Kakariki. The basic proposal is for a roller-compacted concrete dam, approximately¹ 50 m in height, to be constructed across the Mohaka River between land owned by Mr McLean on the southern bank and Crown land leased to forestry interests on the northern bank. The height of the river at this point is approximately 25 m above sea level. The lake formed behind such a dam would extend no further upstream than the bridge at Willow Flat. In its present state, the Mohaka River is recognised² as being navigable from Willow Flat to the sea. Indeed, this was the stretch of the River travelled by jet boat during the Scoping visit.

1.2 The brief for this SIA

The SIA proposal accepted by the Working Party in February 2006 aims to identify opportunities for collaborative development between Meridian Energy Limited (MEL) and the host community, including Ngati Pahauwera. It will also identify potential positive and negative social effects of the Project, related development initiatives and other relevant issues which might occur during the construction and operation of the Project. It will further seek to identify any possible mitigation or enhancement measures and their implications for the host community and for MEL over time.

Specific objectives for the whole SIA are to -

- establish a working partnership between Taylor Baines and Ngati Pahauwera researchers in carrying out the SIA;
- prepare a comprehensive and technically robust social impact assessment that will provide appropriate input to the AEE documentation, a basis for evidence on social impacts, and any other recommendations for the client;
- assess the response of the applicable Wairoa and Hawkes Bay communities, including the level of support for the Project;
- determine the nature and magnitude of the identified positive and negative social effects upon these communities; and
- recommend appropriate mitigation measures where significant adverse effects are identified.

The programme of SIA activities is to be carried out over several phases. The specific objectives of this Scoping Phase are to -

- establish the basis of community participation in the social assessment process;

¹ The final height of the proposed dam will depend on a number of factors currently under consideration, including the geographical extent of the area to be inundated behind the dam.

² Pers. Comm. - Peter Graham, lawyer working with The Property Group, Napier, April 2006.

- **identify any 'fatal flaws' from a social perspective, or to contribute constructive input to the ultimate development proposal in order to assist the Working Party and MEL in deciding whether or not to proceed to apply for resource consents and carry out the associated detailed assessments of effects; and**
- **provide an overview of the potential social effects and social issues likely to arise if the project proceeds, and therefore requiring more detailed assessment.**

2 Approach and methodology

The Resource Management Act 1991 (RMA) sets out a statutory framework which aims to direct the assessment to consider whether the proposed project would be consistent with the sustainable management of resources in a way or at a rate that enables people and communities to provide for their social well being (as provided for in section 2 and section 5 of the Act).

Carrying out a social impact assessment within this statutory framework requires attention to a conceptual framework for thinking about social well being, and the factors which might contribute to people's experience of social well being. Such a conceptual framework, which has been adopted in a range of other SIA³ and social research contexts in New Zealand in recent years comes from social indicators work in the OECD⁴ and closely parallels the framework adopted by the Ministry of Social Development⁵. The OECD study identified eight key areas of social life which shape well being:

- health,
- education and learning,
- employment and the quality of working life,
- time and leisure,
- command over goods and services,
- physical environment,
- social environment and participation, and
- personal safety and autonomy.

In conducting this SIA, consideration will be given to whether or not the proposed project is likely to have consequential effects on any of these areas of social life - in either a positive or negative sense - and for which communities of interest this is most likely to be the case.

³ e.g. Assessment of the effects of Project Aqua on local communities and development of community mitigation proposals, for Kurow Aqua Liaison Committee, 2003; SIAs carried out by Taylor Baines & Associates on several wind farm proposals in 2005; social analyses carried out by Taylor Baines & Associates for assessing the social implications of commercial retail strategy development in Christchurch City between 2003 and 2005.

⁴ OECD, 1998. Living Conditions in OECD Countries: a compendium of social indicators. OECD Social Policy Studies No.5. Paris.

⁵ e.g. Ministry of Social Development, 2003. The Social Report 2003: Indicators of social well being in New Zealand. Wellington.

3 This Scoping Report

This Scoping Report has been prepared as a result of activities designed to identify and establish initial contact with a range of stakeholders; establish sources of background data relevant to the host communities and to the type of project involved; establish expectations about the assessment process amongst potential participants; and provide a broad scoping of potential social issues and effects.

The Scoping Report does not contain an assessment of effects; rather it outlines a range of potential effects and stakeholder concerns which will be assessed in more depth during subsequent phases of the SIA. It also provides a preliminary description of the host communities of interest.

4 Activities undertaken during the Scoping Phase

4.1 Background documents reviewed:

The following documents have contributed background material relevant to understanding the nature of the proposed project and the existing social environment -

- Project Overview for the Kakariki Hydro Development Option (Meridian Energy Ltd)
- Environmental Scoping Report (Environmental Management Services Ltd)
- Waitangi Tribunal reports:
 - Wai 119 *Mohaka River Report 1992*;
 - Wai 119 *The Mohaka Ki Ahuriri Report 2004*⁶ Part IV Chapters 12 & 13;
- Evidence of Tureiti Moxon 1997 to the Waitangi Tribunal at the Mohaka Lands hearing
- Selected literature on the social effects of hydro-electricity development (see Appendix 1)
- Report of 1991 Recreation Survey of the Mohaka River
- Other studies:
 - Preliminary Report on Mohaka River Archaeology Survey For Ngati Pahauwera Waitangi Tribunal Claim 1991 - Pam Bain⁷
 - Assessment of Local Hydro-electric Potential Hawke's Bay Region - Tonkin & Taylor
 - Ngati Pahauwera Use and Tribal View Points of the Mohaka River by Ann La Porter July 1991
 - He Arakanihi ki te Oranga Report, Health Research Council Rangahau Hauora Award - Ruruhia Rameka, March 2006
 - Ngati Pahauwera Hapu/Iwi - Resource Management Planning Kit - November 1995
 - Ngati Pahauwera Business Planning - November 1995
 - Ngati Pahauwera Strategic Plan - November 1995
 - Assessment of Terrestrial Ecological Values Adjacent to the Lower Mohaka River, Hawkes Bay by Wildland Consultants, Distribution and Habitats of Fishes in the Mohaka River. Fisheries Environmental Report No.55, February 2006.
 - Fisheries Research division N.Z Ministry of Agriculture and Fisheries - R.R. Strickland August, 1985.
 - MAF, New Zealand Freshwater Fisheries Report No103, The kahawai fishery at the Motu River mouth, B.P. Penlington, December 1988.

4.2 Hui at Mohaka Marae:

An initial consultation hui was held at the Mohaka marae in November 2005, at which Meridian Energy presented and discussed its intentions for investigations of a potential hydro-electric project on the lower Mohaka River with members of the Ngati Pahauwera iwi.

The second consultation hui on 19 March 2006 led by Ngati Pahauwera Section 30 took place at the Mohaka marae. Approximately 80 people both locally and from different parts of the country including Wellington, Auckland, Napier, Hamilton and Wairoa attended the hui.

The meeting was called to update the people of Ngati Pahauwera of progress in relation to the dam proposal. "Damn the Dam" posters stood out prominently throughout the hui on one side of

⁶ Part IV Chapters 12 & 13
⁷ Department of Conservation

the hall. Unfortunately the kawa or marae protocol became confused with the purpose of the hui whereby a number of people read out their anti-dam submissions during the whakataua or welcome. The background information and the updates given by lawyer Grant Powell, Meridian's Nick Eldred, Toro Waaka (Cultural report) and Tureiti Moxon (SIA) were somewhat overshadowed by the anti-dam sentiment but nonetheless appeared to be well received.

Despite this it was a positive opportunity to inform the people present that the SIA team would be in the area from 4-6 April and that we would be:

- Contacting community stakeholders to interview;
- Gathering relevant data pertaining to the local community;
- Scoping potential social issues and effects of the proposed dam on Ngati Pahauwera;
- Identifying potential effects which could be assessed in greater depth in phases 2-3; and
- Identifying possible benefits in relation to employment, economic development and enhancement of the natural resources.

The issue of whether or not people who are not ahi kaa (living outside the Ngati Pahauwera rohe) should be involved in the decision making process was raised. The response was to continue with the consultation process in the various city centres. Those that submitted written reports were assured that their submissions would be considered as part of the SIA scoping report.

Following the meeting, one person said that they were disappointed that they did not hear from Meridian and the panel as to what the benefits a dam might bring to Ngati Pahauwera. Unfortunately limited time did not allow for a wide variety of views to be heard. A video was also played following the hui showing the impact of dams on river life and in particular eels.

4.3 Scoping visit:

Members of the SIA team⁸ made a Scoping visit to the project area between 3 and 7 April 2006. The Scoping visit included a trip by jet boat for both team members along the stretch of River between Raupunga and Willow Flat.

During the Scoping visit, interviews were held with a range of stakeholders and other people with knowledge of the local communities. These included -

- members of the communities of Raupunga, Mohaka and Waihua; both long-term residents and kaumatua as well as younger generation residents;
- staff at Ngati Pahauwera Hauora, the local health services, and the Mohaka School
- farming landowners immediately adjacent to the proposed dam site and impoundment area;
- representatives of other businesses operating in the project area (gravel extraction and forestry);
- staff at Kotemaori School;
- residents at Willow Flat;
- Wairoa District Council; and
- regional recreational and tourism interests.

A detailed listing of interviewees is provided in Section 10 - Record of Consultation.

⁸ James Baines visited from 3 to 6 April and Tureiti Moxon visited from 5 to 7 April. Interviews were conducted jointly by the two team members on 5 and 6 April.

5 Institutional background for this project

5.1 Project shaping and SIA input

It is important to make explicit the evolving nature of this project and the fact that this scoping SIA is intended to influence aspects of overall project definition in these formative stages. It is expected that members of the SIA team will participate in the project shaping workshop which is expected to be held, once all the investigations currently under way⁹ have been completed and reported, and if a decision is taken to proceed to the next phase of investigations.

5.2 Institutional background for this project with implications for social well being

Ngati Pahauwera is commonly referred to as a hapu (sub tribe) of Ngati Kahungunu. In reality however, Ngati Pahauwera is probably a tribe in its own right and umbrellas a confederation of tribes which include Ngati Purua, Ngati Paikea, Ngai Te Huki, Ngai Tuhemata, Ngati Rauiri, Ngati Kaihaere, Ngati Tangopu, Ngati Kapekape, Ngai Taane, Ngati Kura, Ngati Paroa, Ngati Hineku, Ngati Mawete, Ngati Popoia, Ngati Matengahuru, Ngaiterau and others.

By 1886 an estimated 135,754 acres of tribal land was alienated from a total of 193, 614 acres or 78,353.64 hectares.¹⁰ By November 1997 it was estimated that between 5,428.62 hectares¹¹ and a possible 6,111.1 hectares¹² remained in Ngati Pahauwera ownership.¹³

Ngati Pahauwera have been involved in two claims to the Waitangi Tribunal. The first was an urgent application involving the ownership of the Mohaka River which resulted in the *Mohaka River Report 1992*. The second claim involved the Ngati Pahauwera land claims, which was heard in 1997. The results of the Tribunal's findings were released in the *Mohaka ki Ahuriri Report* in 2004.

In 1994 the Maori Land Court appointed Ngati Pahauwera representatives under Section 30 of Te Ture Whenua Maori Act 1993. The order¹⁴ set out the purposes of the representatives as follows:

- (1) *"To conduct discussions with the Crown and to seek and conclude such agreements as may be necessary pursuant to the recommendations at paragraph 6.4 of the report of the Waitangi Tribunal of 5 November 1992 on the Mohaka River Claim and to give a receipt for Ngati Pahauwera for any compensation...."* and

"...to represent Ngati Pahauwera as a group on any other existing or future claim before the Waitangi Tribunal... or to negotiate settlement of any such claim with the Crown...."

⁹ These studies include preparation of a preliminary cultural issues statement, engineering and geological studies, studies of eel habitat and other native fish passage including whitebait and kahawai and also studies of trout habitat, resource studies associated with gravel extraction, the collection of hangi stones and the collection of driftwood for firewood, studies of riverbank flora and fauna, studies of river mouth shape and gravel banks.

¹⁰ Evidence of Tureiti Moxon to the Waitangi Tribunal 1997, Document N8, p23

¹¹ Ibid.

¹² Evidence of Brent Baker, Document W5, p and Doc X30, pp17-18.

¹³ Summary of Evidence of Tureiti Moxon to the Waitangi Tribunal 1997. Document N8, pg 23.

¹⁴ Order appointing Representatives, 92 Wairoa Minute Book, 1994.

- (2) *"To liaise with Regional and District Councils in the context of resource management issues and management of the Mohaka River."*
- (3) *"To treat with and receive benefits from the Treaty of Waitangi Fisheries Commission."*

It has been 16 years since the Tribunal reported on Ngati Pahauwera's river claim. The Crown has thus far not initiated implementation of the Tribunal's recommendations and is yet to enter into direct negotiations with Section 30 despite the latter's many requests.

The multiple landholdings in the four remaining blocks of Waipapa, Waihua, Mohaka and Putere in Ngati Pahauwera ownership are largely uneconomical. The tribunal found that any land development was fraught with difficulties because the land is:

"...scattered, fragmented parcels in multiple ownership, with many owners owning worthless and negligible undivided interests that make community development an enormous challenge".¹⁵

The Tribunal noted that the exact number of owners who own land is unknown and that, in reality there were probably more owners and less land than was currently estimated¹⁶.

Mohaka can be viewed as a place rich in resources and yet Ngati Pahauwera has received little or no benefit from these. The Mohaka River for example is the major source of gravel for the northern Hawke's Bay area. Since 1963 gravel extracted from the Mohaka River averages between 32,500 and 36,000 cubic metres per annum.¹⁷ In 1992 it was estimated to cost \$1.00 per cubic metre.

There has been a marked increase in forestry development in the area but no direct benefit has come from this or the Mohaka forest to Ngati Pahauwera.

The Mohaka River is the one reliable resource for water, fisheries, hangi stones and fire wood which has consistently supported the Ngati Pahauwera people in times of hardship. It is also the one free resource that has not been completely developed for commercial purposes and removed from Ngati Pahauwera customary use.

The importance of the Mohaka River to Ngati Pahauwera must not be underestimated in either its physical and metaphysical forms. This sentiment is expressed in the pepeha (proverb):

"Ko au te awa.
Ko te awa au"

I am the river and the river is me.

It is a strongly held belief amongst iwi members that the future of Ngati Pahauwera's social and economic well being is intimately linked to its relationship with the River.

¹⁵ The Mohaka Ki Ahuriri Report 2004, Vol II, p500.

¹⁶ Ibid p484.

¹⁷ The Mohaka River Report 1992. pp70-71

Meridian Energy is on record as stating that, if Ngati Pahauwera does not formally endorse a decision to proceed to full investigations and detailed development of this hydro proposal, it will not pursue the matter independently.

The Environmental Scoping Report (EMS, 2005) has identified a range of policy matters which are relevant to any analysis of social well being and social effects. That report covered the Mohaka Water Conservation Order (2004), the Proposed Hawkes Bay Regional Resource Management Plan (Decisions Version, June 2001), and the Proposed Wairoa District Plan (Decisions Version, March 2001).

While the Mohaka Water Conservation Order (2004) prohibits the granting of permits which would affect river water levels in the gorge systems and tributaries of the upper and middle reaches of the Mohaka River, it does not appear to preclude the granting of water permits for damming or diverting the River in its lower reaches¹⁸. This order protects the interests of existing in-stream users within the upper and middle reaches of the River, while signalling to existing users that new uses are not prohibited in the lower reaches of the River.

The Regional Policy Statement contains several Objectives¹⁹ about the maintenance of water quantity of rivers for *"sustaining existing aquatic ecosystems"* and *"ensuring resource availability for a variety of purposes"*, and the *"avoidance of any significant adverse effects of water takes, uses, damming or diversion on lawfully established activities in surface water bodies"*. These are relevant to the wellbeing of customary, recreational and commercial users of the waters of the Mohaka River.

The Regional Plan contains similar Objectives²⁰ on the maintenance of water quantity, and on *"the maintenance and enhancement of the natural and physical resources and uses and values of the beds of rivers and lakes"*.

¹⁸ EMS (2005), p.1
¹⁹ EMS (2005), p.5
²⁰ EMS (2005), pp.6-7

6 Preliminary description of the social environment

This section provides a description of the social environment for the proposed Project Kakariki and the backdrop against which social effects can be assessed.

6.1 Land ownership in the vicinity of Project Kakariki

In summary, land on the northern side of the Mohaka River adjacent to the dam and lake is predominantly in Crown ownership, either as part of the DoC estate or as Crown Land with use rights leased for forestry. The one exception to this is the farmed property owned by Mossman.

Land on the southern side of the Mohaka River adjacent to the dam and lake is a more balanced mix of private and public ownership. There are four farming properties adjacent to the dam and the lower section of the lake, and a 22 ha block of land owned by Carter Holt Harvey near Willow Flat. The remainder of land adjacent to the proposed lake's southern bank is Crown land leased to Pan Pac - the Mohaka Forestry block.

Small pockets of private residential land exist at Willow Flat, where there are currently three permanently occupied dwellings.

A substantial area of "river bed" is expected to be affected by inundation. It is assumed that this is part of the land claimed by Ngati Pahauwera.

6.2 Impact areas and levels of community of interest

Bases for community of interest

Geographically, the primary area of interest for this social impact assessment is described as the lower reaches of the Mohaka River including adjacent lands and adjacent coastal areas. The communities of interest are associated with people who live, work, run businesses and recreate in this primary area of interest, or have established associations with this primary area of interest.

Communities of interest tend to be associated with geographic proximity; historic and customary association, that is to say, traditional iwi relationships with the land and river; current land ownership and settlement patterns; sources and locations of employment or service provision; aspects of administrative responsibility; and interests of people living further afield but visiting for public recreation or commercial tourism activities.

Overview

In practical terms, the areas of potential social effects - communities of interest - appear to fall into three groupings:

- (1) the immediate host community in the vicinity of the lower reaches of the Mohaka River, downstream of Willow Flat;
- (2) the town of Wairoa as the principal service centre for most people living in the immediate host community and the location of many jobs for people resident in the host community, and
- (3) the Hawkes Bay region.

6.3 Immediate host community

Geographical extent

The immediate host community covers an area which includes the rural settlements of Kotemaori, Raupunga, Mohaka and Waihua. Compared with the New Zealand population at large (15% Maori in 2001), this rural community is predominantly Maori (60% Maori in 2001), most of whom belong to Ngati Pahauwera.

Analysis of the 2001 census data suggests a dual economy and settlement pattern in the catchment surrounding the lower reaches of the Mohaka River. Between the settlement of Raupunga and the sea, and mainly on the northern side of the Mohaka River²¹, the usually resident population was even more predominantly Maori (79% Maori) while in the rural areas further away from the river and further upstream on the southern side of the river, the usually resident population was predominantly NZ European (28% Maori).

Community focal points

Settlement patterns throughout the immediate host community involve relatively widely dispersed rural communities. At the 2001 census, the entire host community numbered slightly fewer than 500 permanent residents, occupying 171 dwellings²².

Besides the settlements of Mohaka and Raupunga, the Maori communities have focal points around four marae²³ in the area. These marae are the principal marae Mohaka a Iwi at Mohaka, Te Huki at Raupunga, Te Mara a Ngata at Kahungunu and Waihua marae at Waihua. The predominantly Pakeha community further inland is centred more on Kotemaori (school) and Putorino (pub and indoor sports facility). However, it was described as being "*quite fragmented these days*" particular since the closure of the NZ Forest Service village (~1990) when Kotemaori School lost 13 families²⁴, followed soon by the closure of the shop, with its post Office and banking facilities.

Ngati Pahauwera rohe

The rohe over which Ngati Pahauwera exerts its rangatiratanga or authority is encapsulated in this proverb:

Maungaharuru ki uta
Tangitu ki te moana

From the Mangaharuru ranges inland to Tangitu seaward (the Hawke's Bay coastline)

The original boundaries of ancestor Te Kahu-o-te-Rangi as described by Cordry Huata during the Mohaka River Claim extend from Pukekaraka to Puketitoti down to the Waiau River, up onto Te Haroto down to Puketitiri and down through the Te Wai o Hingaanga stream to the sea to a rock

²¹ i.e. including the settlements of Raupunga and Mohaka and the adjacent rural land close to the River

²² The predominantly Maori community around Mohaka and Raupunga numbered 321 permanent residents in 105 dwellings (3.1 pp/dwelling), while the predominantly Pakeha community numbered 171 permanent residents in 66 dwellings (2.6 pp/dwelling).

²³ Wairoa District Council, 2004. The Wairoa Profile, p.117

²⁴ Kotemaori School interview.

(the home of the taniwha Moremore). From the sea to the east the boundary continues until Pukekaraka inland to the Maungaharuru ranges.²⁵

“Ngati Pahauwera whakapapa points to continuous occupation for at least 500-600 years...” (Forbes & Gumbley). Archaeological data also supports other evidence for lengthy and continuous settlement in the area. Their relationship to the river is based on more than the concept of the River as a source of resources to consume - resources such as kahawai, inanga, eels, trout, firewood, gravel, hangi stones and water for the Mohaka marae. There is a social context to fishing; members of the community meet together to harvest when the kahawai or inanga are running. The River provides occasions and places to meet. It is also *“the lifeblood of the Ngati Pahauwera people”*, acknowledged as a source of food which could sustain them in times of hardship²⁶ in a way which electricity could not - *“our people have been nourished and fed by the River”*. The River also has spiritual significance for Ngati Pahauwera in the terms of *whakapapa* (genealogy), *wairua* and *taniwha*.

In evidence before the Waitangi Tribunal on Ngati Pahauwera's Mohaka lands claim, Moxon (1997) described the consequences for the tribe's social and economic development of a long history of land alienation. She concluded *“Loss of mana means loss of power and resources; loss of power and resources has meant cultural and socio-economic deprivation and all the consequent dysfunctions.”*

This situation underpins the cultural significance of the Mohaka River to Ngati Pahauwera.

Readers should also refer to the preliminary Cultural Issues Paper prepared by Toro Waaka for further detail on this relationship.

Demographic comparisons

The socio-economic circumstances alluded to by Moxon are reflected in some of the demographic comparisons shown in Table 1. This table provides a summary of demographic variables for the immediate host community as it was at the time of the 2001 census and then disaggregates the data between the predominantly “Maori” meshblocks and the predominantly “Pakeha” meshblocks. The comparison highlights the aspects of the dual economy alluded to previously.

The data demonstrate -

- the rural Maori community had greater proportions of children and elderly people than the rural Pakeha community, perhaps reflecting a combination of larger Maori families, and Maori elderly being more likely to retire on their land whereas Pakeha elderly tend to retire ‘to town’;
- the rural Maori community had smaller proportions of working-age people than the rural Pakeha community, particularly those at the beginning of their working lives (aged 15-24 years) probably reflecting a need to leave the area in search of employment, and those at the height of their earning power (50-64 years);
- the rural Maori community had much higher proportions of registered unemployed and much higher proportions of working-age people not active in the labour force than the rural Pakeha community;

²⁵ The Mohaka River Report, 1992 p9.

²⁶ e.g. local economic recession, economic hardship, being stood down by WINZ or bird flu pandemic.

- the rural Maori community had greater proportions of working-age people with no educational qualifications than the rural Pakeha community;
- while the rural Pakeha community had much higher proportions of working people with advanced vocational qualifications, the rural Maori population had somewhat higher proportions of working-age people with university degrees;
- the rural Maori community was much less likely to have working people who were self-employed or employers of others, and slightly more likely to have working people who were working for wages or salaries;
- the rural Pakeha community was much more likely to have working people who were farmers or in professional/management occupations, while the rural Maori community was much more likely to have working people who were trades people, plant and machinery operators or unskilled 'elementary' workers;
- the rural Pakeha community had many more people working in farming than the rural Maori community, while the rural Maori community had more people working in manufacturing, construction and health and social services than the rural Pakeha community, and both communities had similar proportions working in the education sector;
- personal income levels and household income levels were consistently much higher in the rural Pakeha community than the rural Maori community;
- social deprivation levels were most pronounced in the rural Maori community.

Table 1: Demographic comparisons
 Source: Statistics NZ. 2001 Census of Population and Dwellings.

Demographic variable	"Host community"	predominantly "Maori" meshblocks	predominantly "Pakeha" meshblocks
Usually resident population	492	321	171
% Maori	60%	77%	28%
% of resident population who were in various age cohorts			
- under 15 years	33%	36%	28%
- 15-24 years	10%	8%	13%
- 25-49 years	37%	36%	36%
- 50-64 years	13%	10%	17%
- over 65 years	8%	9%	6%
% of resident population who were of working age (i.e.>15 yrs)	67%	64%	72%
% of Working Age population who were 'gainfully employed'	52%	40%	73%
% of Working Age population registered Unemployed	9%	12%	2%
% of Working Age population not in the labour force	32%	41%	15%
% of Working Age population with No Qualifications	39%	44%	29%
% of Working Age population vocational qualifications			
- basic	3%	3%	2%
- intermediate	3%	2%	5%
- skilled	3%	3%	2%
- advanced	4%	0%	10%

Demographic variable	"Host community"	predominantly "Maori" meshblocks	predominantly "Pakeha" meshblocks
% of Working Age population with bachelors degree	4%	4%	2%
% of 'gainfully employed' who were self-employed	13%	10%	17%
% of 'gainfully employed' who were wage & salary workers	62%	63%	60%
% of 'gainfully employed' who were employers	8%	3%	13%
% of 'gainfully employed' who worked in certain occupations			
- professionals	10%	7%	13%
- agricultural workers	48%	33%	63%
- trades	3%	7%	0%
- plant/mach. operators	10%	13%	7%
- elementary workers	17%	23%	10%
% of 'gainfully employed' who worked in certain industries			
- agriculture	53%	30%	73%
- manufacturing	9%	15%	3%
- construction	4%	7%	0%
- education	11%	11%	10%
- health/social services	4%	7%	0%
Median personal income	\$9,500-\$25,400	\$9,500-\$15,600	\$17,500-\$25,400
Mean personal income	\$11,600-\$38,200	\$11,600-\$17,600	\$19,400-\$38,200
Median household income	\$11,700-\$55,000	\$11,700-\$35,000	\$33,000-\$55,000
Mean household income	\$17,000-\$61,100	\$17,000-\$42,100	\$33,600-\$61,100
Social Deprivation Index (on scale of 1-10 where 1 = least deprived and 10 = most deprived)	7-10	all 10	7-8

Land-use trends

The conversion of pastoral farm land to forestry, which has had such significant effects on local employment patterns and work opportunities, began several decades ago. At the present time, forestry in the area employs approximately 100 people, comprising a steady flow of work for ~50 silvicultural workers and fluctuating levels of work for up to five 10-person harvesting crews²⁷. These levels of employment compare with 150 wage workers and 20 administrative staff in the days when the forests were managed by the NZ Forest Service.

The most notable recent changes in land use in the lower Mohaka have been the introduction of viticulture²⁸ on a block near Raupunga and the recent conversion of some riverside flats to kiwi-fruit and olive farming on the south side of the River near the viaduct.

²⁷ Three of these crews are supplied by prison work groups from Hawkes Bay regional prison on a 5-days/week commuting basis, while the other two crews commute from Napier. The forest manager indicated that efforts have been made in the past to establish a local crew. However, these foundered on the hurdle of random drug testing and the lack of an adequate work ethic to sustain the job.

²⁸ Nobilo's leases 200 acres from landowners.

Social Organisation

The Ngati Pahauwera Incorporated Society (the Society) was established in 1989 to provide a legal entity for Ngati Pahauwera. It was initially set up to lead the Mohaka River Claim and to oppose the conservation order over the river.

The eleven member board is made up of representatives from the local four marae, kaumatua, rangatahi, hauora, sports, education, unemployment and management. The Society also administers three kaumatua flats at Raupunga. One interviewee spoke of his concerns about the need for representatives to undertake training to assist their understanding of their roles and meeting procedures. This in his opinion would enable people to come together and make good decisions.

In January 1995 Section 30 registered themselves as the Ngati Pahauwera Section 30 Representatives Cooperative Society Limited (the Cooperative)²⁹ registered under the Industrial and Provident Societies Act 1908. They are a member of the New Zealand Cooperative Association made up of thirty seven members including Fonterra, Ravensdown, Tatua Dairy and other companies. They were the first and only Maori members to be included in the Association until 2000 when Ngati Kahu ki Whangaroa joined the Association.

The Cooperative is currently the only non-producing member. It is unable to participate as an active member until the settlements with the Crown of the forests, lands, fisheries and the river are complete. Currently it pays a subscription of approximately \$300 per annum. Once the claims are settled, then a membership drive will be undertaken for the required minimum of 20 members. It is envisaged that an election will be held thereafter to form a Board of Directors.³⁰

Description of other social/farming groups will be included at later stages of the assessment as appropriate.

Services and infrastructure

Education:

The network review of schools in the District in 2004 resulted in the closure of five schools³¹, one of which was Raupunga Bilingual School which was required to merge with Mohaka School at the end of 2004. The High School at Raupunga closed in the 1960's, since then all secondary age children travel 30 km or more³² by bus into Wairoa each day.

The Mohaka Primary school has a role of 35 children. Approximately 50% of the children come from Mohaka, 20% from Waihua and 30% from Raupunga. Mohaka has a staff of one principal and one full-time teacher, one teachers aid, one secretary, a part time reading recovery teacher and a Principal release who comes to the school once a week. The principal at Mohaka raised concerns about the inequities between urban and rural schools, saying that Mohaka was "*an oppressed area and we have to fight for anything extra. The Ministry dumped a dilapidated*

²⁹ 36 Revised Rules of Ngati Pahauwera Section 30 Representatives Cooperative Society Limited - NA/636675

³⁰ Ruku Wainohu, Treasurer for the Cooperative

³¹ A one-teacher school at Putere remains open while the Waihua School also closed at the end of 2004.

³² For example, children who have gone through primary school at Kotemaori, travel on the Kotemaori School bus as far as Raupunga to connect with the Wairoa School bus service.

building on the school grounds which cost \$50,000 to do up. The children in the city have the best and the country children always miss out”.

The other primary school in the host community is at Kotemaori, which is a two-teacher school catering for New Entrants to Year 8.

There are two active Te Kohanga Reo in Raupunga, Te Rau o Te Orewa which operates from the old high school and Ngai Taane Kohanga Reo which operates from a purpose-built building further up the Putere Road at the Huata whanau homestead.

Health:

Ngati Pahauwera Hauora is a Maori Community Health Service established in 1996 under contract to the Ministry of Health. It operates with a manager, a community health worker and two nurses out of premises in the old high school buildings at Raupunga to deliver a range of general health education and promotion, advisory, liaison and coordination activities. Te Hauora is administered by a management committee and is a member of the Society. It has approximately 700 people registered from an area between Waihua and Waikari, and between Putere and the sea, an area of some 200 sq.km that corresponds to the hapu boundary. Staff commented that they had been asked to undertake a community needs assessment (survey) this year, but that they were not sufficiently resourced to do this at the present time.

Housing:

Linked to the activities of Te Hauora, there has been a programme in the past six months aimed at promoting health through proper house maintenance and the targeted upgrading of family homes.

As part of government's policy to improve the standard of housing in Aotearoa New Zealand, Housing New Zealand (HNZ) is in the process of assessing some 40 homes in the area. A further seven relocatable houses have also been sited in the area by HNZ for low income families. A twenty-year lease is taken over the land where the house is located and the whanau/families will be given the option to buy the house after 10 years at whatever the standard value of the house would be at that time. Although these are not new houses, the standard of living has been noticeably raised.

Water supply:

Raupunga has the remnants of an old community water supply system, although under new Ministry of Health Drinking Water Standards it no longer complies with standards for public supply³³. In effect, households in the host community are dependent on their own resources to meet their needs for domestic water supply. Not all houses have their own tanks and in some cases, the roofs of houses are in no fit state to be used for catching drinking water³⁴. Staff at Te Hauora report that domestic water shortages have consequences for residents' health and well being, resulting from less frequent washing and lower levels of dwelling cleanliness. It was also reported that this is a major reason for residents to use the River for bathing at certain times of the year.

³³ Wairoa District CEO notes that it is very difficult to achieve the required A grading for water quality without incurring a level of costs that is unaffordable for the local community.

³⁴ Nevertheless, the Wairoa District CEO indicated that filtered roof tanks may be the most cost-effective and affordable method for achieving satisfactory domestic drinking water.

The Raupunga community was without running water for 10 months between June 2005 and February 2006 because the reservoir/dam collapsed. No one had the expertise in the community to fix it or the finance to have it fixed during that time. According to one Raupunga resident *"there is a spring by the public toilets. We had to cart water from the toilets everyday."* This was further confirmed by another resident from Putere who mentioned a photograph on the front page of the Wairoa Star of a child carrying water across the state highway from the toilets. Yet another Raupunga resident spoke of the hardship of being without water for that length of time. He said *"Water is the problem. People who say they don't want a dam don't live here. The dam is condemned. If we dam behind the Keefe homestead (on Putere Rd) where the creek is and just behind that a waterfall, there would be water to feed the whole of Raupunga and Mohaka. It requires a high dam. We need a dam something like Waiotapu in Reporoa which feeds the whole of Reporoa"*.

The Mohaka marae is supplied by water pumped from the River³⁵, and the water supply to the Raupunga School prior to its closure had filtration and UV treatment.

Waste:

Most buildings in the host community are on septic tanks for waste water treatment and disposal. Solid waste disposal for the communities of Kotemaori, Raupunga and Mohaka is now by means of a once-weekly roadside collection, since the local transfer station on Putere Rd in Raupunga closed in late 2005.

Transport:

As with most rural areas around the country, there is no public transport. Consequently, travel costs are a big issue. One resident said the single largest cost to her was travel. She said, *"It costs \$30.00 to go from Raupunga to Napier."* Another said that transport was difficult and the impact of the petrol costs is intensifying the hardship on families to the point where someone had siphoned the petrol from the lawn mower, while a third mentioned the cost of travel on families who had to travel in and out of Wairoa for sport and shopping.

Electricity:

The cost of electricity to residential customers was another rural issue raised, particularly in relation to the level of household income.

6.4 Wairoa - District administrative and service centre

The town of Wairoa, some 30 km north east of the Mohaka River is the administrative centre of the District. It is also the primary service centre for the people of the host community.

More detail, as necessary, will be provided on District-wide trends that are relevant - during subsequent stages of the assessment.

³⁵ This water supply was installed relatively recently at a cost of some \$47,000.

6.5 Special interests in the region

There exists a range of 'users' of the Mohaka River, apart from immediate rural residents, associated with (amongst other things) -

- gravel extraction from the Mohaka River
- recreation on the Mohaka River (i.e. non-commercial recreational uses)
- tourism on the Mohaka River (i.e. commercial recreational users)

Gravel extraction

The Mohaka River is an important source of gravels for use in the road construction sector throughout northern Hawkes Bay, between Bay View and Mahia. Roads in this part of the country appear to require relatively high levels of maintenance due to the nature of underlying rock substrate and the high level of use by heavily-laden trucks³⁶

The river gravels provide highly-specified roading metal suitable for Transit contracts on the state highway system. Gravels from the higher terraces contain higher clay content, and these tend to be used for the extensive network of the Districts unsealed roads. Alternatively, these gravels require cleaning to raise their specifications to meet Transit requirements.

Two contracting firms operate out of Wairoa³⁷, while several other firms operate from bases in other parts of Hawke's Bay.

QRS used to have a depot in Raupunga until 1994. Now the company sub-contracts with individuals in the Raupunga and Mohaka communities. Operating in the lower Mohaka area has to contend with frequent site security problems³⁸. One way to address this issue is to negotiate site-specific access agreements, although this does not always ensure total security.

QRS operations in the District employ approximately 90 staff, of whom four come from Mohaka and Raupunga. Two of these are involved in river extraction and crushing operations and two are drivers. As mentioned above, QRS also works with several sub-contractors in the area.

It was noted that there has not been a major climatic event since Cyclone Bola in 1988. As a result of extracting 30-40,000 tonnes each year from river gravels, new river-bed sites have to be investigated. A similar quantity of gravels is extracted annually from terrace sites.

Recreation and tourism interests

Understanding of the recreational and tourism interests in the Mohaka River draws on historical survey data as well as interviews with local residents, recreational groups and current tourism operators.

³⁶ Resulting from road transport being the principal mode of freight transport between Hawkes Bay and Gisborne, and the heavy use of local roads and state highways by logging trucks.

³⁷ QRS and Knights; note that QRS is an ex-Local Authority Trading Enterprise.

³⁸ It has not been uncommon - several times a week - to lose fuel, batteries and other gear to theft.

Summer survey 1990/91:

A survey of recreational users of the middle and lower reaches of the Mohaka River³⁹ was carried out during the summer of 1990/91⁴⁰. While the survey results are 15 years old, they may provide a benchmark for comparison with current observations.

The survey results suggested some important differences between the middle and lower reaches of the River, both in terms of recreational activities⁴¹ and in terms of where the recreationists came from.

The middle reaches provided for a greater variety of recreational activities. The most popular five activities

- fishing (52%)
- swimming (48%)
- rafting (20%)
- picnicking (19%)
- and camping (17%)

were reported for more than 10% of the respondents. However -

- walking (9%)
- relaxing (9%)
- tubing (8%)
- kayaking/canoeing (6%)
- sight-seeing (6%)
- eeling (6%)

were reported for between 6-10% of respondents.

Visitors to the middle reaches of the Mohaka were far more likely to come from the rest of the Hawkes Bay region (62%) than from the Mohaka Valley itself (15%).

The lower reaches exhibited a narrower range of activities, with the five most popular being

- fishing (63%)
- swimming (48%)
- relaxing (14%)
- bathing (11%)
- eating/cooking (9%).

While it was reported that the lower reaches still attracted more people from the rest of Hawkes Bay region (47%) than from the Mohaka Valley itself (23%), the report also notes⁴² "In the Lower River sub-sample, locals who went down to the river 'for a look' several times a day were not surveyed as it is debatable whether their visit could be defined as recreational in nature."

³⁹ Key informants at the time of the survey suggested that the upper reaches need not be included in the survey because of low levels of use. The survey area therefore encompassed seven locations between Fisherman's Hut in the middle reaches and the beach at the mouth of the Mohaka River.

⁴⁰ The survey period was 30 December 1990 to 6 February 1991, chosen to coincide with the peak use period of the River.

⁴¹ In the 1990/91 survey, recreation included both public/personal recreation and commercial recreation that would probably now be considered a tourism activity.

⁴² Para.6 on p.3.

On this basis, the report observed that "The Middle River is visited predominantly for recreation while the Lower River is used as an everyday 'life resource' as well as for recreational purposes."⁴³ The summary findings of the 1990/91 stated that: -

- local and regional residents are the main recreational users of the Mohaka River;
- the River is used for recreation all the year round, reflecting the degree of local use, but peak use occurs during the summer months (December - February);
- use varies between the Middle and Lower reaches of the River;
- in the Lower reaches, the activities and reasons for visiting reflect the practical nature of river use, illustrated by the importance of the River as a bath to the local community, some of whom rely on tank water for their domestic water supply;
- the recreational focus of the Middle reaches derives from the physical river conditions, which make the gorge section popular for activities such as rafting, while campsites attract camping and picnicking;
- Maori use was focused along the Lower reaches while commercial use was focused along the Middle reaches;
- most people visit the Mohaka River with family and/or friends.

Scoping visit - April 2006:

Recent enquiries suggest that the Middle and Lower reaches of the River continue to attract different patterns of recreational activity and public use, with commercial activities remaining focussed on the Middle reaches⁴⁴.

Discussions with representatives of the Hawkes Bay Canoe Club, the Hawkes Bay Adventure Racing Club, two residents at Willow Flat, three landowners adjacent to the River, a forest manager responsible for granting recreational permits and a chartered jet-boat operator all tend to confirm that recreational use of the River is relatively high in the middle reaches - either side of the Napier-Taupo highway (SH5) down to just below the Willow Flat Bridge⁴⁵. Below that point, all observations point to little recreational use in the lower reaches. A relatively high level of customary use and local recreational use is reported downstream of the viaduct near Raupunga.

Most interviewees remarked that usage patterns reflect accessibility. There are several public access points to the middle reaches between the Napier-Taupo highway and the Willow Flat road⁴⁶, provided variously by roads off SH5 at or before Te Haroto and SH2 at Tutira. These roads

⁴³ Executive Summary.

⁴⁴ It was reported by several interviewees that efforts in recent years by commercial interests to 'harvest' eels from the lower reaches of the River have prompted an official ban on commercial eeling.

⁴⁵ A stream joining the Mohaka River on the south bank, approximately 1 km downstream of the Bridge marks the most downstream take-out point for practically all kayaking on the River.

⁴⁶ The Willow Flat road itself is tar sealed through the Mohaka Forest block as far as the bridge at Willow Flat; furthermore, this road continues to a place referred to as Halliburton's which affords access to the River's north bank near the confluence with the Te Hoe. The confluence with the Te Hoe River can also be reached on its southern bank by roads off SH2 and SH5.

provide access to stretches of the River which cater for various grades of kayaking and rafting challenge as well as stretches of the River noted for good trout fishing. Between Willow Flat Bridge and Raupunga public access is very restricted and opportunities very limited. Access to forestry roads is controlled by locked gates and access to forestry land is controlled by a permit system, administered by companies who belong to the Forestry Stewardship Council. On occasions in hot, dry summers, when the fire risk reaches a certain threshold, public access to forest land is prohibited and the gates are maintained locked. In any case, more than 90% of permits to forestry land are reported to be for the purposes of pig hunting. The same source reported typically four requests a year for jet boat access via Patuwahine Road on the north bank and two permits for fishing⁴⁷.

The nature and pattern of recreational use also appears to reflect the quality of the recreational resource. There are few rapids in the River below a point about 1 km downstream of Willow Flat Bridge which make this stretch of River less appealing to kayakers and rafters, although it does attract occasional seasonal use by adventure racers⁴⁸ who use it in their longer boats for training for endurance races such as the kayaking section of the South Island Coast-to-Coast event. Trout fishing is also commonly reported as being much better in the upper and middle reaches of the River, with particular mention made of the trout fishery supported by the Te Hoe River.

In summary, the most popular locations for recreational use by people from the wider Hawkes Bay region and elsewhere in the North Island are along the upper and middle reaches of the Mohaka River, down to a point approximately 1 km downstream of the Willow Flat Bridge. The significance of this 1 km stretch of River below the Willow Flat bridge is related to the ease of public access and the contrast between river conditions upstream and downstream of the bridge. The 1 km stretch downstream contains several grade 1 'water gardens' and easy recycling of boats⁴⁹ which make it a very good venue for training novices for handling rapids. This makes it possible also for parties of mixed abilities to recreate in the same general location - the more advanced will use the grade 4-5 section above the bridge while the less experienced will use the grade 1 section below the bridge.

The Mohaka River is relatively unique in this respect, in that it provides for grades 1-5 in a continuous stretch of the same river.

Local community use of the River is concentrated around the lower reaches, particularly though not exclusively downstream of the viaduct.

By all accounts, commercial tourism activity other than that which is associated with recreational activities already alluded to (e.g. rafting, guided trout fishing) is very limited. There is backpackers accommodation on one of the farming properties adjacent to the proposed dam site, which is just completing its third season of operation.

⁴⁷ This level of use was confirmed by a jet-boat operator who runs fishing charters on five North Island Rivers, including the Mohaka.

⁴⁸ Nevertheless, these adventure racing enthusiasts acknowledge that they still do most of their training in a 12 km stretch of the River either side of SH5, because it is closer to Hawkes Bay or other northern cities where most of them come from, and because river access is easier. However, they pointed out that adequate water levels in the River are more reliable in the lower reaches than the middle reaches. They also pointed out that vehicle security has been problematic along the lower reaches near the sea, a factor which deters most from using this stretch of river.

⁴⁹ Track access along the southern bank between points of departure and take-out.

7 Social effects and issues

7.1 Scope of this section

Section 7.3 below contains a summary listing of potential social effects and issues raised during the scoping interviews. All the effects and issues listed are 'potential' effects. They are 'potential' effects in the sense that they have not yet occurred, but also sometimes in the sense that they are uncertain, although they would also be possible. They are listed because they have been raised during the scoping-phase discussions and recorded as worthy of further investigation.

Some of these will be assessed in more detail during the next phase of the Social Impact Assessment, while others will be referred to relevant specialists in the assessment team. It should be noted that inclusion of potential effects in the list below does not imply that they will necessarily be confirmed or found to be significant social effects when ultimately assessed. Furthermore, it may be possible to avoid, remedy or mitigate particular effects or issues. Such possible 'mitigation' measures will not be discussed in this Scoping Report.

7.2 Overview of social effects and issues

Most interest focused on the likely permanent effects, once a dam is constructed, if that should happen. Construction-phase effects drew little attention at this stage, partly because little information is presently available about the construction process, and partly because there is little expectation amongst those interviewed of significant positive benefits locally during construction. Projects of this scale will create demand for labour and ancillary services to construction. At the present time it is not possible to say with certainty who will benefit from such opportunities, although it is evident that the construction site is within the wider regional labour market (incorporating Hastings and Napier in the south and Wairoa in the north). There could be scope for Meridian Energy to establish procedures for encouraging local employment opportunities during construction through recruitment and training initiatives. However, these are matters which will be explored further in the next phase of the SIA.

It was acknowledged that one benefit that will accrue, regardless of whether or not the dam proposal proceeds, is the body of new knowledge about the Mohaka River and its ecology that will come out of the studies currently commissioned by Meridian Energy and the Working Party.

7.3 Long-term social effects and issues arising from the existence and operation of a hydro-electric dam on the Mohaka River

The potential for social effects depends upon the perspective. Some effects will apply to a few specific landowners, other effects will apply to larger groups of people or communities, and so on.

Several effects appear certain -

- approximately six landowners will have land removed from farming production due to inundation by the hydro lake;
- one landowner expressed particular concern about what he describes as the loss of unique environmental amenity when the flowing river is replaced with a body of still water;
- gravel extraction activities will not be able to continue from certain river-bed locations down stream of the dam, because gravel banks in this part of the river will not be replenished as they currently are;

- loss of the future opportunity for a 'mountain to coast' type adventure event due to the obstacle of the dam.

A number of other potential effects are somewhat less certain at this stage, but are nevertheless cause for concern amongst many interviewees -

- loss of rangatiratanga, power and control over the river;
- the risk to the physical and metaphysical aspects of the river, such as the risk to Paikea, an important Ngati Pahauwera taniwha referred to as the bar between the Mohaka River and the sea;
- further commercial development of Ngati Pahauwera's natural resources with the risk that no genuine and significant long-term benefit comes back to Ngati Pahauwera people, including -
 - the risk to a basic food resource for Ngati Pahauwera people due to changes in the habitat of river-based fisheries, specifically eels, whitebait, herrings, kahawai and trout;
 - the risk of adversely affecting the lagoon, the traditional breeding ground of the herrings which attract the kahawai in the 1000's;
 - reduced accessibility to a free firewood resource for marae activities due to the dam stopping driftwood from coming down the River to the bar where it is currently collected;
 - the risk of reduced accessibility to hangi stones;
 - the risk of reduced accessibility to rongoa or medicinal plants on the river bank due to inundation upstream of the dam;
- the risk of losing traditional customary rights and way of life as a result of the above;
- the risk of changes in the patterns of coastal erosion;
- the risk to the lives or livelihoods of downstream residents from a catastrophic failure of the dam in a major weather event or earthquake;
- the potential to affect recreational amenity downstream of the dam due to fluctuating and uncertain river levels making river-based recreation risky;
- the potential to affect a recreational amenity of regional significance due to inundation of the popular grade 1 stretch of river just downstream of the Willow Flat bridge, or due to the accumulation of silt and gravels at the top of the newly-formed lake;
- loss of alternative potential and future economic possibilities;

If the new lake should attract increased public use, this may result in -

- increased fire risk in the forests during dry summer months from accidental or malicious causes;
- altered risk of poaching or interference with farm stock.

Potential positive effects include the following -

- a source of revenue for Ngati Pahauwera as a partner in the hydro development which could be used as the basis for on-going social and economic development initiatives by the iwi, such as education grants for rangatahi/youth, or addressing the local needs for domestic water supply
- the creation of a new recreational amenity for water skiing and flat-water boating enthusiasts in the form of the lake behind the dam;
- opportunities for local gravel extraction businesses in the maintenance activities associated with gravel accumulations at the inlet to the hydro lake.

8 Opportunities for related development

8.1 The basis for considering 'related development'

One of the tasks specified for the scoping phase of the social impact assessment was the identification of opportunities for related development initiatives. These might be either by way of mitigating effects, or as specific initiatives made possible by the hydro-electric development.

In the latter case, discussions focussed on the assumption that Ngati Pahauwera's participation with Meridian Energy in the proposed hydro-electric development might result in the creation of some quantum of financial resource, perhaps a Trust Fund, or some form of permanent revenue-sharing arrangement with Ngati Pahauwera; that is to say, a financial resource that would provide the basis for local social and economic development initiatives in the future.

The basis of Ngati Pahauwera's future involvement in the proposed hydro-electric development - should it proceed further - is unclear at the present time, at least to most iwi members. Furthermore, it was not commonly presumed by the iwi members interviewed that financial resources might become available to Ngati Pahauwera as a result and some iwi members are cynical towards such overtures in the light of their historical dealings with government and the Crown.

As a result, the topic of 'related development' opportunities did not arise easily in the scoping phase discussions. Nevertheless, some potential concepts have emerged that relate to social and local economic development.

8.2 Potential development concepts and principles

A future financial fund or revenue stream could be applied to -

(1) investment in sustainable infrastructure services for the community - e.g. water supply, waste disposal - services that are effective and affordable in the long term;

(2) creating a credit/financing facility, administered by Ngati Pahauwera, for developments on multiple-owned Maori land which cannot raise capital in conventional capital markets;

(3) creating improved educational opportunities for young people through investments in local schools, secondary and tertiary scholarships, trade training, etc.;

(4) sustaining marae activities at the four marae, thus reinforcing them as centres of community activity;

(5) other local economic development opportunities for the iwi and its members (e.g. when forest lands are returned or if other JV opportunities such as the Nobilos case present themselves in future) as the basis for creating more local employment opportunities and thereby enabling more young people to remain in the community because there is a more positive expectation that a sustainable livelihood is feasible;

(6) more adequate resourcing for community-based social services, such as those associated with Ngati Pahauwera Hauora, and a fund for increasing access for iwi members to services that require costly travel.

It is important that any such 'development' benefits are seen as being real in economic terms; that they are seen as being shared around the community; and that they are seen as benefiting future generations in a lasting way.

8.3 Recognising rangatiratanga and the need for capacity building

Other suggestions for future community development focussed on recognition of partnership status, perhaps through Ngati Pahauwera representation on some form of dam governance committee, and on various aspects of capacity building, including -

(1) initiatives that contribute to building trust amongst Ngati Pahauwera members, particularly between Section 30 members and the wider Ngati Pahauwera community and the capacity of tribal representative to take leadership roles throughout the process of consenting and construction;

(2) initiatives that contribute to building skills and experience within Ngati Pahauwera to administer the financial resources arising from the hydro electric development if it proceeds.

8.4 Potential recreational developments

Some specific suggestions were forthcoming in the interviews about potential recreational development opportunities, including -

(1) river access arrangements and recreational infrastructure around the new lake.

(2) that, following settlement of ownership claims to the river bed, Ngati Pahauwera have appropriate rights to the development of commercial tourism in relation to the lake, such as jet-boat river tours and the like;

(3) the development of a camping facility for families and schools and housing to be owned and operated by Ngati Pahauwera, following settlement of landownership claims.

From discussions with regional recreation interests, one specific possible future development might involve sponsorship of a high-profile adventure racing event based on the 'mountains to coast' concept and explicitly factoring in the existence of a hydro electric dam.

9 Conclusions and recommendations to the Working Party

In this section we provide conclusions on the 'fatal flaw' assessment and make recommendations to the Working Party related to the challenges ahead.

9.1 'Fatal flaws' or challenges

Our investigations during the scoping phase have not confirmed any specific 'fatal flaws' to further progressing this hydro electric development initiative. However, they have identified or confirmed some challenges ahead which will need to be addressed.

From the range of interviews conducted so far, we can conclude that -

- (1) the potential downsides of this hydro electric development proposal loom much larger in people's minds than the potential development opportunities that might be associated with it;
- (2) attitudes of those interviewed range from strong opposition or guarded opposition, to being neutral and prepared to keep an open mind, to support for the basic hydro electric proposition, with the balance (amongst those interviewed thus far) perhaps being more towards opposition than support;
- (3) there are steps which can be taken, and which should be taken before any final decision on whether or not to proceed to a full proposal (see Recommendations in Section 9.3).

9.2 The basis of present opposition

While not wishing to ignore the potential benefits, it is strategically important to consider the basis of present opposition. In general, this comes from three sources, which we discuss briefly below in order of upstream interests to downstream interests.

Regional recreational interests:

In the middle reaches of the Mohaka River, the most important issues appear to be (1) the extent to which the lake which forms behind the proposed dam will interfere with the area of the River immediately below the Willow Flat bridge that is popular with less experienced kayakers, and (2) the loss of future opportunity for 'mountain to coast' recreational experiences on the River.

The first issue needs addressing by determining with confidence the relationship between proposed dam height and the extent of impoundment behind the dam, including the zone at the upstream end of the lake where silts and gravels may accumulate and therefore where gravel extraction may have to be considered in future. Attention needs to focus on whether or not 'interference' can be avoided between the interests of hydro electric generation and the interests of in-stream recreation.

The second issue is more one of potential lost opportunity rather than existing activities being denied in future. Hence the earlier suggestion (Section 8.4) to consider, by way of mitigation, promoting actively the concept of a 'mountain to coast' adventure racing event which explicitly incorporates the existence of the proposed dam and lake.

Local landowner interests:

Meridian Energy is already aware of the positions that the various landowners adjacent to the dam and lake have adopted, as a result of their one-on-one discussions. Resolving such landowner opposition in each individual case, to the extent that it exists, is probably largely an issue of the adequacy of compensation.

Ngati Pahauwera interests:

For the Ngati Pahauwera community, the potential downsides of hydro electric development certainly loom larger than any substantial benefits. This is understandable when we consider that the risks to their customary uses of the River and to their relationship with the River have not been resolved since the research is still in progress and any results have yet to be explained throughout the community. It is also understandable in light of the fact that the potential for community benefits has hardly been articulated at all, and certainly not out in the wider Ngati Pahauwera community.

Hence the situation where Ngati Pahauwera Working Party members may be more open to considering the proposal, yet some segments of the Ngati Pahauwera community are trenchant in their opposition, as evidence in the following extracts from interviews or written submissions -

"The source of food is the greatest worry."

"We do not like the thought of losing something, our taonga. This is natural, leave it natural."

"It is hard for us to comprehend why they want to dam the river. A rich company wanting to put holes in our river. We get nothing for free except what we get from the river. The kids can swim in it, bath in it and get fish from it. There is going to be nothing left that is untouched."

"The Mohaka River is the Life blood of it's people, of Ngati Pahauwera. We are a part of the river and the river is part of us. The river has its own wairua. The river has given us water and food and firing wood and has nourished our families over these many years and is still looking after us...We say no. Please leave our river alone."

In summary, if the majority of the Ngati Pahauwera community see only the risk of losing things that are near and dear to them - rangatiratanga, wairua, food and water - why would they express support for hydro electric development on their River. From their perspective, there has been little substance to the discussion of potential development benefits; there has been relatively little effort so far (i.e. as at May 2006) devoted to building and demonstrating trust between Meridian and the wider Ngati Pahauwera community although they know their long history of resource alienation; and there is suspicion amongst some segments that a "divide and rule" agenda is under way.

These are issues that can be addressed. Indeed, the Working Party has already given thought to addressing some of the issues. This Scoping Phase SIA serves to reinforce the importance of addressing these issues. Indeed, we suggest that grass-roots (flax-roots) iwi support for continuing the investigations and developing a full partnership arrangement will not be forthcoming until much more specific information has been put on the table for discussion and reflection.

Because there is much ignorance about the potential effects and about the studies currently underway, sustained efforts are required to increase knowledge and understanding in all segments of the host community of the expected environmental effects specific to this particular dam and lake proposal. Time and discussion must be allowed to enable people to piece together the understandings from scientific knowledge and local knowledge. This will take time, and repeated communication. Consideration should be given to multi-lingual explanation and dialogue.

For members of Ngati Pahauwera, any decision to support this project amongst the broad membership will depend ultimately on the perceived balance between the downside risks of harm to their River and the upside future benefits in terms of social/community development and local economic development. It will be essential to develop and negotiate clearly the specific means by which Ngati Pahauwera will derive long-term and on-going economic benefit from the hydro electric development - the means for generating economic opportunity that improves social well being by raising the standard of living across the community. It will be essential to communicate these ideas broadly throughout the Ngati Pahauwera community. The level of community support for this development proposal will depend ultimately on how well the long-term benefits are understood and how worthwhile they are considered to be by members of the iwi. The challenge is one of credibility and trust.

Related to this is a challenge for Ngati Pahauwera itself. A critical aspect of future capacity building for Ngati Pahauwera will be the implementation of appropriate administrative structures for facilitating local economic enterprise (on-going revenue earning) and for facilitating the enhancement of social and community well being (health, employment, leisure, identity, etc.). As noted earlier (Section 6.3, Social Organisation) the Ngati Pahauwera Incorporated Society was established in 1989 to provide a legal entity for Ngati Pahauwera. However this was found not to be the appropriate legal entity to administer any compensation from the Treaty claim. Section 30's Cooperative although not yet tested is the legal entity that has been set up for that purpose. However, it will be important to the outcome of this particular proposal that such community structures are well understood and well respected and trusted by the broad membership of the iwi. This is because such structures will be a critical component for turning potential future benefits into real future benefits. At present, based on the range of interviews in the Ngati Pahauwera community, understanding of the administrative structure and confidence that it will be effective is not much evident.

9.3 Recommendations

Out of the foregoing discussion, we make the following recommendations, stated in no particular order of importance.

(1) Meridian Energy Ltd: determine with confidence the relationship between proposed dam height and the extent of impoundment behind the dam, including the zone at the upstream end of the lake where silts and gravels may accumulate and therefore where gravel extraction may have to be considered in future. In particular, determine whether or not it is feasible to avoid the potential 'interference' between the interests of future hydro electric generation and the interests of established in-stream recreation uses.

(2) Meridian Energy Ltd: ensure that landowner agreements are completed satisfactorily before proceeding to seek resource consents.

(3) The Working Party: negotiate the likely scope, scale and options for delivery mechanism of a fund or revenue stream of financial resource (associated with the hydro electric development

proposal) that will create credible opportunities for future social and economic development in the local community. Credibility will depend on sufficient detail and the basis for assurances.

(4) Ngati Pahauwera Section 30 Committee: promote discussion and greater awareness within the iwi of administrative structures in place that may be appropriate for facilitating economic enterprise and community development. Note: this would be just as relevant in the context of final settlement of the iwi land claims.

(5) The Working Party: initiate and resource a programme of communication and knowledge-sharing activities aimed at creating better-informed understanding about the hydro electric proposal, the likely environmental effects (i.e. the outputs of various studies underway at the present time) and the scope, scale and delivery mechanisms for future benefits (as in Recommendation (3) above). Consideration should be given to involving local residents as facilitators of such knowledge-sharing activities and to establishing information resources at places such as local marae, local schools (Mohaka and Kotemaori) and the Ngati Pahauwera Hauora building.

(6) The Working Party: convene feedback discussions with representatives of regional recreation groups on the outcomes of Recommendation (1) above.

(7) The Working Party: provide progress briefings to other stakeholder groups (e.g. Wairoa District Council, etc.)

10 Record of consultation

During the scoping phase, interviews⁵⁰ were held with the following -

- 13 March: Wairoa Visitor Information Centre (by telephone)
 Department of Conservation, Brett Butland (by telephone)
- 3 April: Hawkes Bay Adventure Racing Club, Tim Wilkens and Roger Wiffin
 Hawkes Bay Maori Tourism Trust and Hakes Bay Maori Tourism Operators, Tom
 Mulligan and Des Ratima
 Hawkes Bay Canoe Club, Rob Worlledge, Warren Hales, Matt Saunders
- 4 April: QRS, Lee Aitken
 Wairoa District Council, Peter Freeman
 Iwi Liaison Committee of the Wairoa District Council
 Mohaka Forests, Pan Pac, Gerald Haynes
 Kotemaori School, Sonia gray, Liz Heidi Harris, Chrissie Meredith, Sandra McNeil
 Resident of Willow Flat - Mrs McAuley
 Resident of Willow Flat - Mr Francis
- 5 April: Landowner on south side of the river - Mr Hamish McLean
 Landowner on south side of the river - Mr Anthony (Tony) East
 Landowner on south side of the river - Mr Mark Furniss
 Mohaka residents - Maera McDermott and Francis Clark
 Mohaka residents - Buck and Heti Tumataroa
 Mohaka resident - Charlie King
 Mohaka residents - Sharleen Hawkins and Ruth Hawkins Hooper
 Mohaka residents - Maude and Tom Heta
- 6 April: Principle of Mohaka Primary School - Dianne Barrett
 Ngati Pahauwera Hauora - Isobell Thompson (Community Health Worker), Lois
 Gerrard (Enrolled Nurse),
 Raupunga resident - Maraea Aranui
 Mohaka residents - Ross and Ngaire Taurima
 Putere resident - Shaun Haraki (Telephone interview)
- 7 April: Mohaka residents - Tom and Joan Hamlin
 Raupunga residents - Wayne and Mrs Rose Taylor
 Raupunga resident - Willy Culshaw
 Ngai Taane Te Kohanga Reo - Jan Huata and Gay Hawkins (Ngati Pahauwera
 Hauora Office Manager)

⁵⁰ Unless otherwise stated, these interviews were held face-to-face.

11 List of individuals and organisations to consider for follow-up contact during the Main Assessment Phase

Halifax Mohaka Ltd, owners of the new kiwi-fruit/olive farming venture upstream from the Mohaka viaduct. (Land ownership and local employment?)

Nobilos, vineyard operators on Maori land leased near Raupunga. (Landownership and local employment?)

Local Federated Farmers representative, Ian Blair at Kotemaori 06-837 6557 (recent changes in farming and local rural organisation?)

WINZ Hastings and Employment Brokeridge Team, Alan Bolt and Rob Wilson. (recent trends in unemployment and employment amongst host community residents; WINZ stand down periods - the effect it is having on whanau/families in the area; the impact of the WINZ policy whereby beneficiaries are restricted to one particular area?)

Hawkes Bay Regional Council (data on water takes from the Mohaka River? Royalties from gravel extraction?)

Trade training providers in Wairoa and Hawkes Bay (training courses relevant to construction activities?)

TrustPower (comparative costs of electricity in the area)

Appendix 1 Social impacts from hydro-electric power schemes - lessons from the New Zealand experience

Note: This summary assumes that the Kakariki hydro-electric development project does not include an irrigation component. If such an eventuality should occur, further background documentation is available to guide the relevant assessment.

Source material

This review is based largely on the following sources:

Nick Taylor, Gerard Fitzgerald and Wayne McClintock. Social assessment of hydro-electricity development: lessons from the New Zealand experience. Paper prepared for the Annual Meeting of the International Association for Impact Assessment, Vancouver, 26-29 June 2004;

Waitangi Tribunal 1993. Te Ika Whenua River Report, Chapter 6.

Findings in these references have been supplemented with observations from more recent social impact assessment work carried out by Taylor Baines & Associates.

Conceptual framework

The 'life cycle' of a hydro-electric power scheme provides a useful framework for examining the social effects associated with this type of development. This 'life cycle' begins with the planning phase, and extends through construction of the dams, reservoirs, canals and generating plant, gradual withdrawal of the construction workforce, and eventual wind down of construction as a relatively small number of workers takes over the operation of the scheme.

Generally, the potential exists for a range of social effects at each stage. Furthermore, the range of effects usually encompasses both positive and negative social risks.

Potential effects during the planning phase

Social effects can occur during the planning phase of a hydro-electric power scheme, and may fall outside the formal process of impact assessment.

Positive social effects during the planning phase may include:

- building social and human capital including the formation and revitalisation of community groups and the up-skilling of community members in planning processes and technical matters;
- collection of a large amount of natural resource and social data that becomes publically available through the AEE process;
- increased business activity and employment for firms providing accommodation and services for project investigations;
- increased national publicity for the local area and its attractions from media attention on the project;
- development of a long term strategic vision for the local area and its resources.

On the other hand, there may also be:

- psychological impacts and stress due to the uncertainty associated with land acquisition, compensation and the mitigation of potential effects;
- the effect of these uncertainties on decision making and investment by firms and households;
- social conflict in the host community between proponents and opponents regarding the acceptability of the project and the fairness of any plans for mitigation and compensation that may result in a legacy of conflict within the community;
- diversion of significant social capital and scarce resources from the host community into addressing project planning issues that may be critical when there has been a struggle to maintain social services;
- creation of barriers to social trust, or deterioration in an existing relationship, between the developer and community.

These adverse social effects can be managed by establishing procedures for community liaison early in the planning phase, providing timely information about the planning process and technical issues, supplying financial and technical assistance for community groups participating in the planning process, and supporting community development and adjustment initiatives.

Potential effects during the construction phase

The construction of dams, canals, reservoirs, power plants, roads and other project infrastructure may require some farms, businesses and households to resettle permanently elsewhere⁵¹. The physical effects of construction activities such as increased levels of noise, dust and traffic may give rise to social effects ranging from the temporary loss of amenity values or temporary downgrading of working environments, to the prevention of social activities and risks to human health. In some extreme situations, these physical effects may be of sufficient magnitude to require other farms, businesses and households to move temporarily to another location. Assessment of the potential for such construction-related effects is a significant part of social assessment throughout the project cycle. In the extreme situation of involuntary re-settlement, mitigation is addressed through a Relocation Action Plan (RAP) which includes consulting relevant stakeholders, identifying the groups in the community that need to be relocated and preparing them for the shift, formulating compensation arrangements, planning the design of housing and services for any new settlements, and developing earning opportunities for people and firms that will lose income because of their relocation.

The construction workforce, inevitably temporary in nature, is another important focus of social impact assessment. The characteristics of the workforce employed to construct a hydro-electric power scheme raise a number of issues for the assessment of potential effects. These issues include:

- where the required specialists will be recruited from (i.e. the local area, wider region, or the rest of the country)
- where the incoming workers and their families will be located and the type of accommodation to be provided for them
- the additional population impact of the incoming workers and their families, and its consequences for existing groups in the community, the housing market, infrastructure and social services.

⁵¹ Sometimes referred to in the literature as involuntary re-settlement.

A workforce plan should be prepared by the developer that covers the period from the beginning of construction to the operation of a hydro-electric power scheme. The plan would assess the capacity of the local labour market to supply the construction workforce; examine the implications for training providers, travel to work and the supply of accommodation within the area; and suggest ways for the housing market and social services to meet the increased demand generated by an influx of construction workers and their families. One of the key issues to be addressed by the plan is the distribution of the incoming workforce. The options for this include dispersal in existing settlements of the region, concentration in an existing town, concentration in a specially built settlement, or any combination of these strategies.

Construction of hydroelectricity power schemes in New Zealand has favoured the concentration of incoming workers and their families in specially built settlements, though more recently the trend has been to accommodate them in existing rural towns. The wind down of construction activities is a particularly difficult period for host communities as the continued viability of educational, health and social services, as well as local business firms, is threatened by a rapid decline of population. In specially built settlements, moreover, there are difficulties in sustaining local infrastructure that has been designed for a much larger population. At this time community leaders acquire a greater sense of urgency for finding alternative economic activities to provide employment for local residents.

Previous studies of hydro-construction workforces and host communities in New Zealand reveal that both specially built settlements and existing rural towns experience a cycle of rapid growth and rapid decline in their population. They typically move through phases of arrival, settlement and eventual departure of construction workers and their families. The main workforce effects occur during the construction period, since today the operation of hydro electric power schemes is highly automated.

Potential effects during the operational phase

Operational workforces are relatively small and not always located at the same site as the construction workers who preceded them.

Most social and economic benefits from the development of hydro-electric power schemes are derived at the regional and national levels, and these large scale, capital intensive, energy developments often contribute little to the longer-term economic welfare of residual hydro town and existing rural communities, unless this is deliberately planned. Examples do exist in New Zealand where tangible longer-term social and economic benefits for the immediate host community have been associated with hydro-electric developments. New recreational facilities such as public access points and boat ramps are not uncommon; the facilities for staging rowing regattas on Lake Ruataniwha⁵² are an example of more specialist facilities. In terms of local business opportunities, the development of a commercial salmon farm on the hydro canal between Lakes Pukaki and Ohau is an example.

Social assessments need to examine the issues of resource cycles and economic diversification. The effects on local communities should be monitored and managed over the life cycle of a hydro-electric power scheme at the community, district and regional levels, so that the benefits (e.g. additional employment, increased business turnover, better amenities) arising from its operation are maximised, and the costs (e.g. adverse environmental effects, social dislocation, and loss of livelihood assets) are minimised.

⁵²

With the consequent and regular social and economic benefits to the nearby town of Twizel.

Other effects of particular interest to tangata whenua

The Te Ika Whenua River Report describes several issues and effects concerning the mana and tino rangatiratanga of the hapu of Te Ika Whenua over the Rangitaiki, Wheao, and Whirinaki Rivers and their tributaries under article 2 of the Treaty which resulted from permitting the Bay of Plenty Electric Power Board and the Rotorua Area Electricity Authority to erect the Aniwhenua and Wheao Dams on the Rangitaiki and Wheao Rivers.

Diversion of Rangitaiki into the Wheao

The claimants strongly objected on cultural grounds because of the mixing of the waters of the Rangitaiki and the Wheao.

Lack of consultation over Aniwhenua and Wheao schemes

The claimants alleged Crown had trampled on their tino rangatiratanga by allowing the construction of the Aniwhenua and Wheao power schemes on their rivers and granting water rights for schemes without consulting their Treaty partners. The Crown rejected this assertion. Electricity companies said that they had undertaken some consultation with local Maori at the time (1970's), but there was no recognised requirement for consultation with Treaty Partners prior to 1986.

Consultation over the Kioreweku Project

The claimants maintained they were not consulted about Bay of Plenty Electricity's project to construct the Kioreweku Dam near Lake Aniwhenua. Bay of Plenty Electricity responded by providing information about their consultation processes. The claimants pointed out one of the faults of the RMA was that input from tangata whenua was not required until much of the preliminary work was completed and the project became a fait accompli.

Eel depletion and eel replenishment scheme

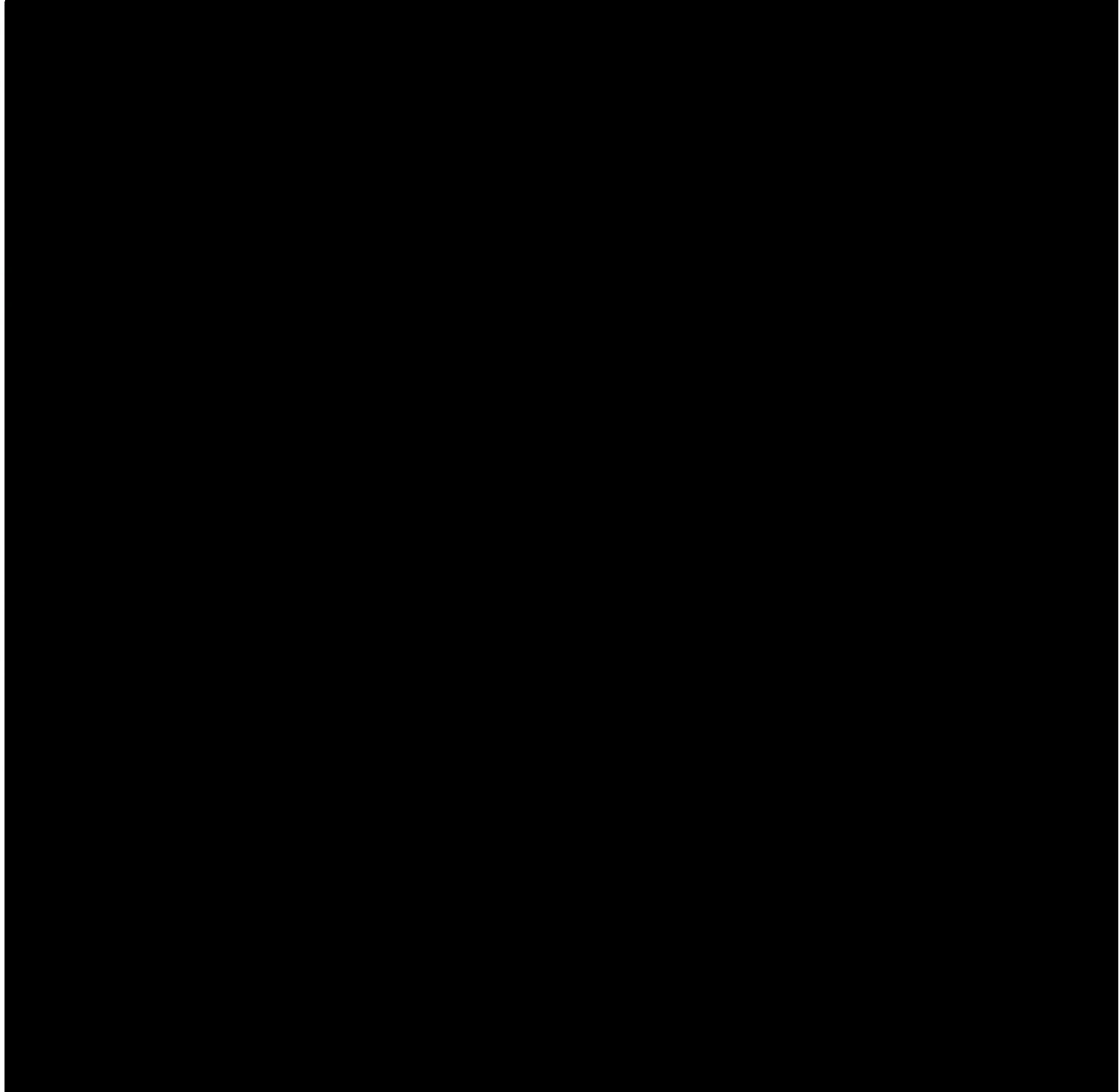
The claimants alleged the Aniwhenua and Wheao Dams deprived them of their eels, an important food source, by blocking the migratory routes for the eels to/from the sea. Evidence was presented by witnesses for the claimants on depletion of the eels since the construction of these two dams and the Matahina Dam.

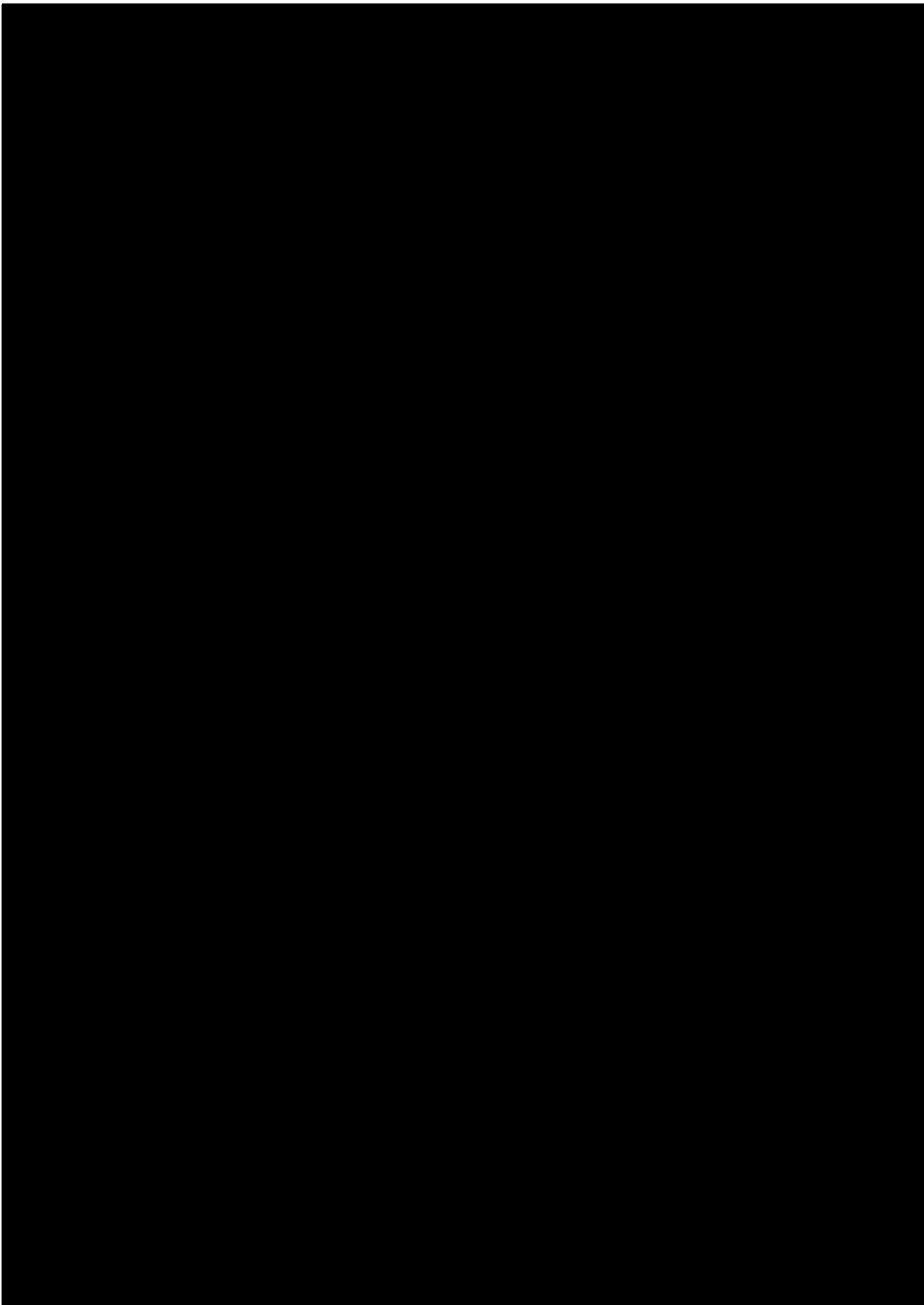
A fisheries consultant for Bay of Plenty Electricity confirmed that the dams were obstacles for eel migration and described the effects. Electricity Corporation of NZ and Bay of Plenty Electricity had introduced measures (including assisting the migration of eels) to restore and increase the eel population of the Rangitaiki River. The claimants responded by asserting the Crown had failed to protect their customary rights in the fishery.

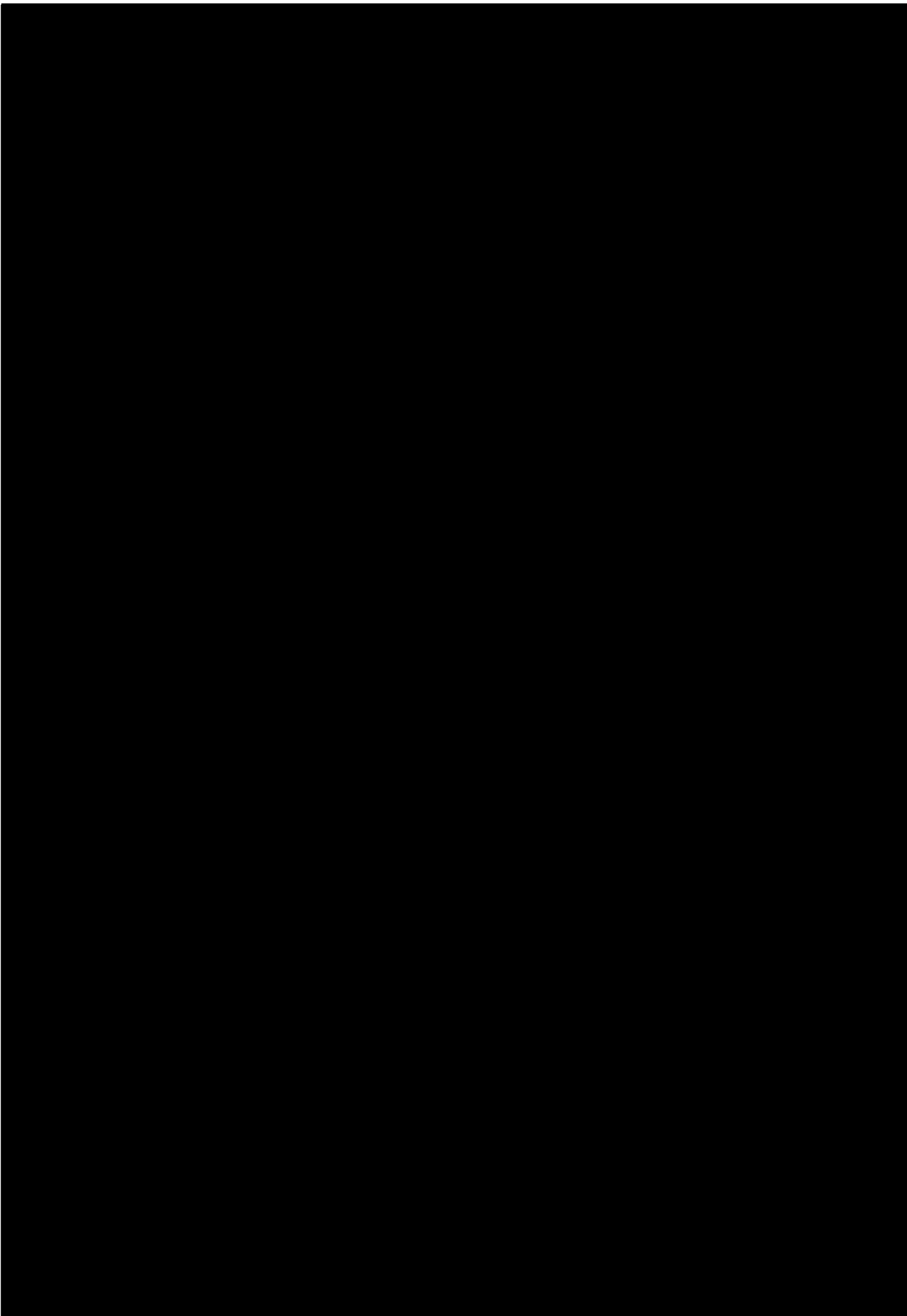
Appendix 2 Comparison of 1991 and 2001 census data for Raupunga Area Unit with the 1997 population profile of Raupunga prepared by the Wairoa DC

	1991 census	1997 profile ex Wairoa DC	2001 census
Population UR	804	384	741
Male/female	52.2 : 47.8	52:48	49.8 : 50.2
% < 19 years (1)	34.6	39	34.8
% > 60 yrs (2)	12	-	12.1
Involved in voluntary work	147	-	-
% no school qualifications	57.5	-	32.8
% tertiary qualifications	27	-	15.4
% persons living one family household (3)	65.5	-	66.3
% persons living alone (4)	15.5	-	25.6
Average rental per week	\$40	\$42.50	-
% dwellings owned	52	-	59.3
% dwellings not owned	42.9	-	33.7
Separate dwellings	90.8	-	-
% employed full-time	47.4	-	44.6
% employed part-time	9.5	-	14.3
% Maori	54.1	77	50.6
% European	43.6	-	47.4
% Married	52	-	59.4
% persons earning under \$20,000 (5)	83	-	50.6
Median personal income	\$11,300	\$8,170	\$15,396
Mean personal income	-	\$10,300	\$20,809
Per capita income	\$9,800	-	-
% workforce in agriculture, hunting, fishing & forestry	61.8	-	50
% paid employees in LF	50.9	-	52.5
% self employed in LF	17.9	-	14.8
% unemployed in LF	15.7	-	11.3

Notes: (1) Under 19 yrs for 1991, 19 yrs & under for 2001; (2) Over 60 yrs for 1991, 60 yrs & over for 2001; (3) 2001 - per cent of one family households; (4) 2001 - per cent of one person households; (5) 2001 - \$20,000 & under

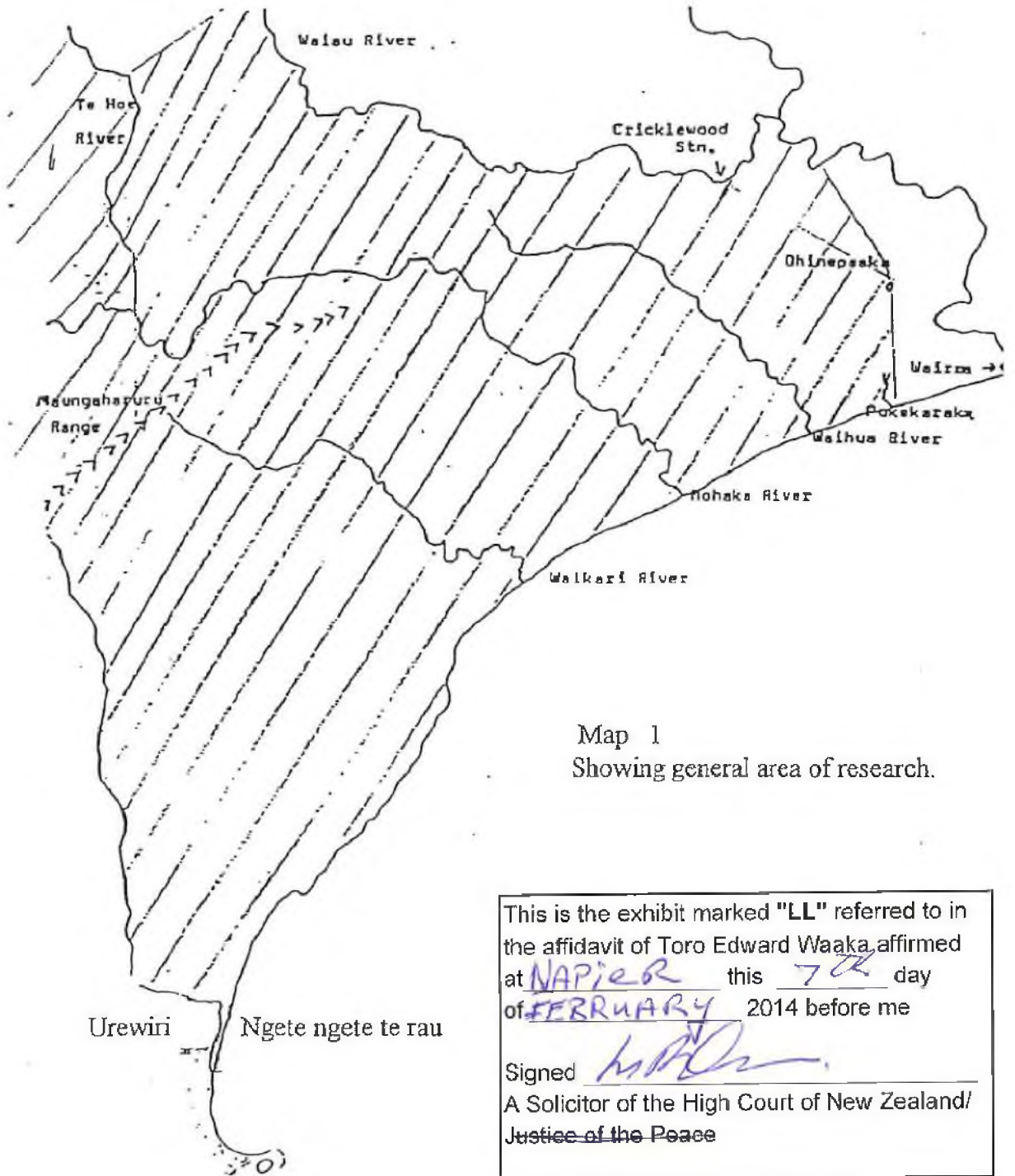






RESEARCH AREA

1.1 The research area is located south of Wairoa on the east coast of the North Island of New Zealand. The research centres on the Mohaka block sold in 1851. That is the area between the Mohaka and Waikari rivers. This area encompasses a section of the customary territory of a number of hapu that now make this claim to the Waitangi Tribunal under the umbrella of their tino hapu, Ngati Pahauwera.

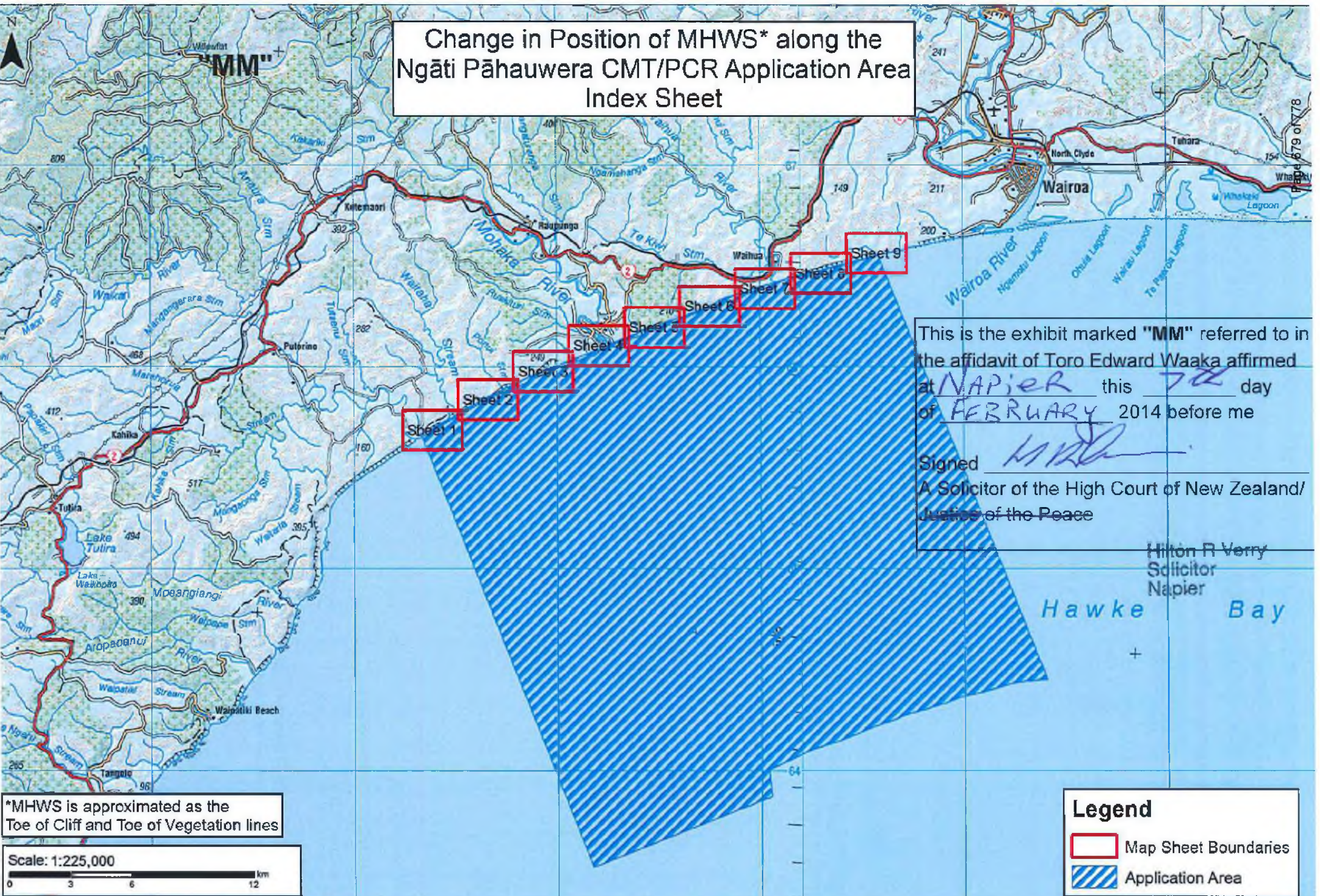


Map 1
Showing general area of research.

This is the exhibit marked "LL" referred to in the affidavit of Toro Edward Waaka, affirmed at NAPIER this 7th day of FEBRUARY 2014 before me

Signed [Signature]
 A Solicitor of the High Court of New Zealand/
 Justice of the Peace

Change in Position of MHWS* along the Ngāti Pāhauwera CMT/PCR Application Area Index Sheet



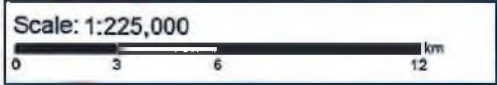
This is the exhibit marked "MM" referred to in the affidavit of Toro Edward Waaka affirmed at NAPIER this 7th day of FEBRUARY 2014 before me

Signed *[Signature]*
 A Solicitor of the High Court of New Zealand/
 Justice of the Peace

Hilton R Verry
 Solicitor
 Napier

Hawke Bay

*MHWS is approximated as the Toe of Cliff and Toe of Vegetation lines



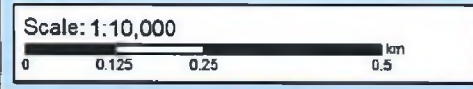
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- Map Sheet Boundaries
- Application Area

Change in Position of MHWS* along the
Ngāti Pāhauwera CMT/PCR Application Area
Sheet 1 of 9



*MHWS is approximated as the
Toe of Cliff and Toe of Vegetation lines



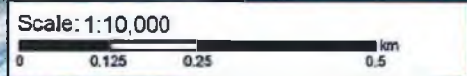
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- Coastal Marine Area Point
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- 2011 Toe of Cliff Line

Change in Position of MHWS* along the
Ngāti Pāhauwera CMT/PCR Application Area
Sheet 1 of 9

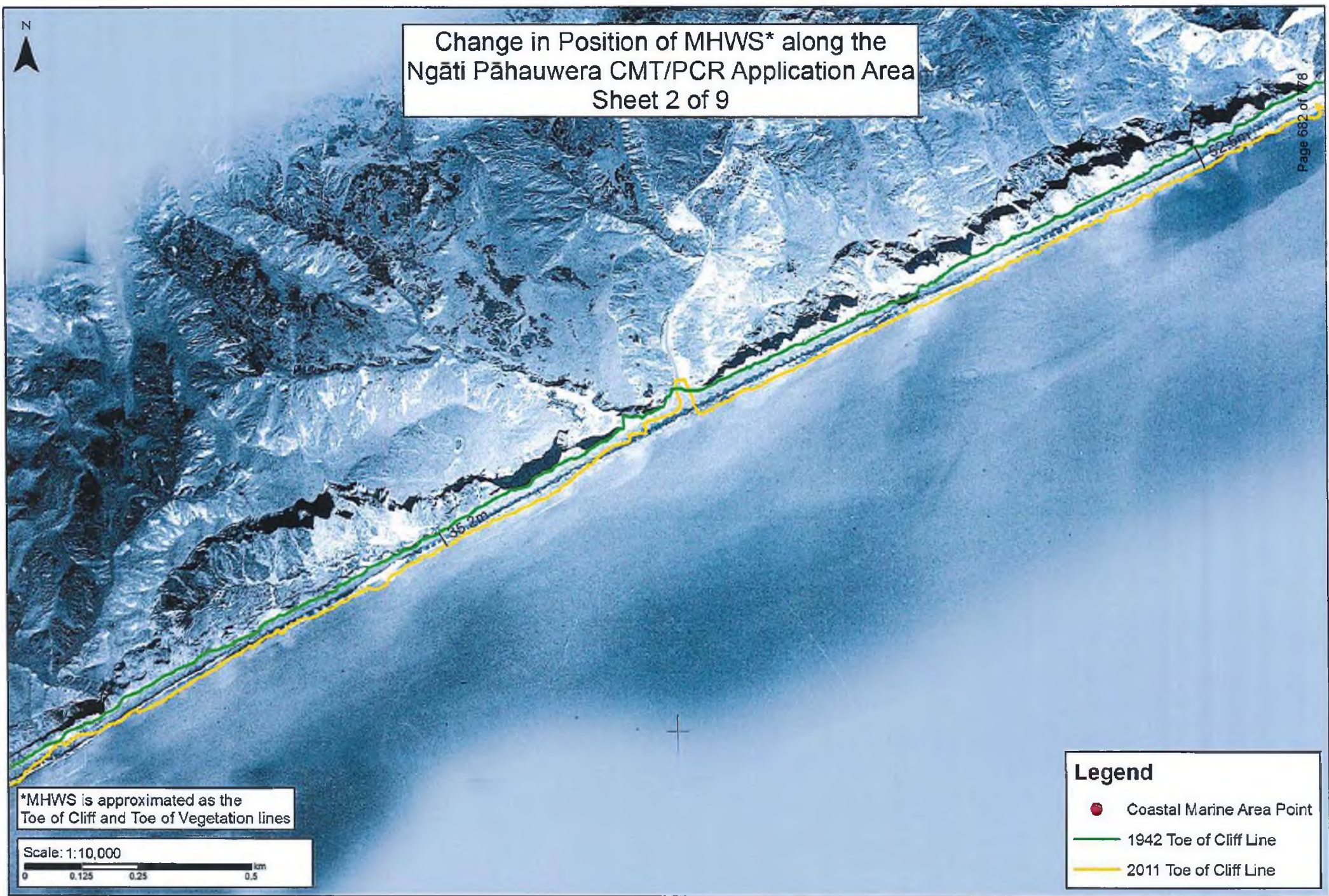


*MHWS is approximated as the
Toe of Cliff and Toe of Vegetation lines



Legend

- Coastal Marine Area Point
- 1942 Toe of Cliff Line
- 2011 Toe of Cliff Line



Change in Position of MHWS* along the
Ngāti Pāhauwera CMT/PCR Application Area
Sheet 2 of 9

Page 682 of 78

*MHWS is approximated as the
Toe of Cliff and Toe of Vegetation lines



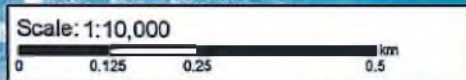
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- Coastal Marine Area Point
- 1942 Toe of Cliff Line
- 2011 Toe of Cliff Line

Change in Position of MHWS* along the
Ngāti Pāhauwera CMT/PCR Application Area
Sheet 2 of 9



*MHWS is approximated as the
Toe of Cliff and Toe of Vegetation lines

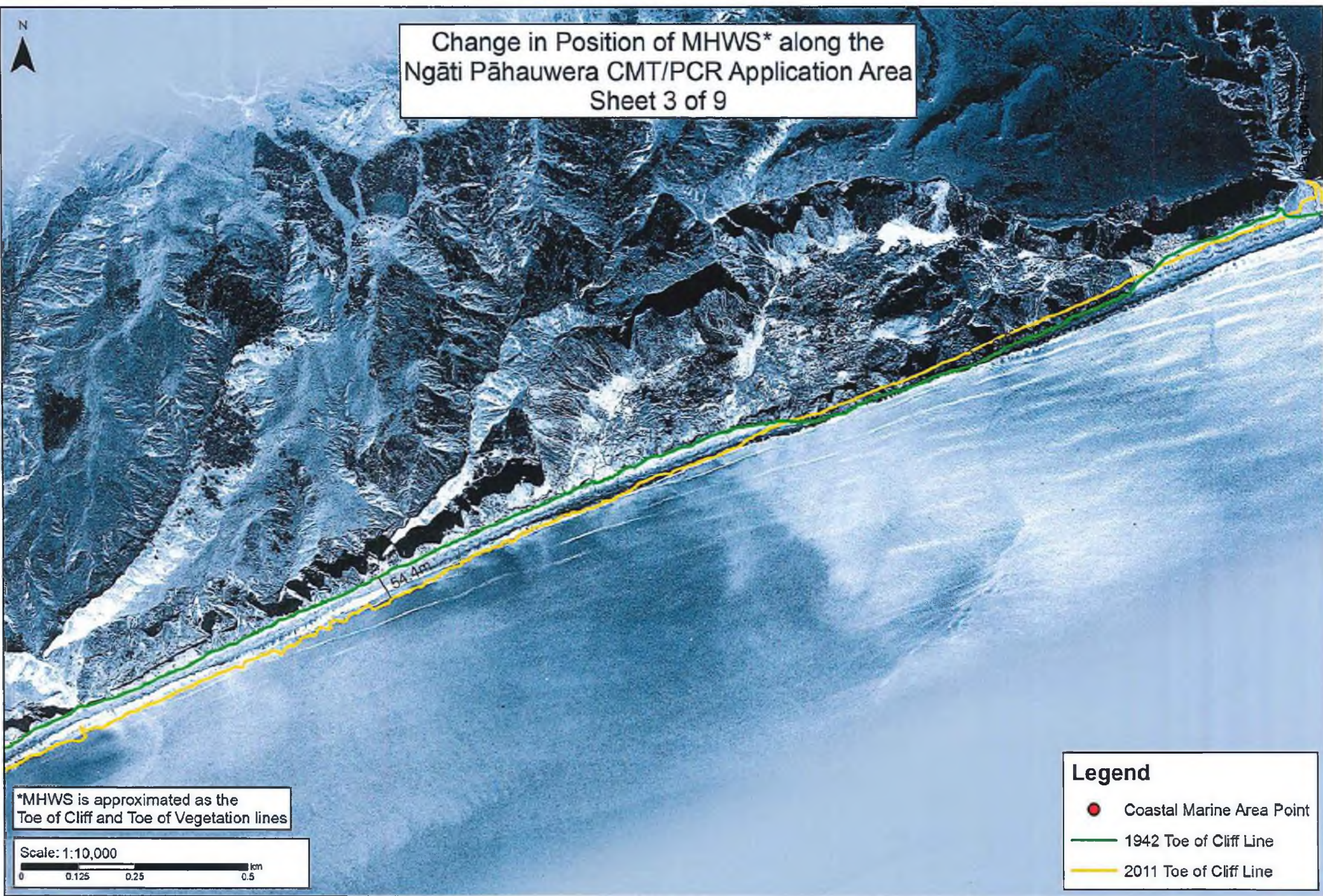


Legend

- Coastal Marine Area Point
- 1942 Toe of Cliff Line
- 2011 Toe of Cliff Line



Change in Position of MHWS* along the
Ngāti Pāhauwera CMT/PCR Application Area
Sheet 3 of 9



*MHWS is approximated as the
Toe of Cliff and Toe of Vegetation lines



Legend

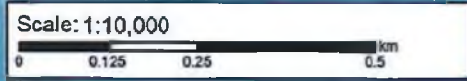
- Coastal Marine Area Point
- 1942 Toe of Cliff Line
- 2011 Toe of Cliff Line

Change in Position of MHWS* along the
Ngāti Pāhauwera CMT/PCR Application Area
Sheet 3 of 9

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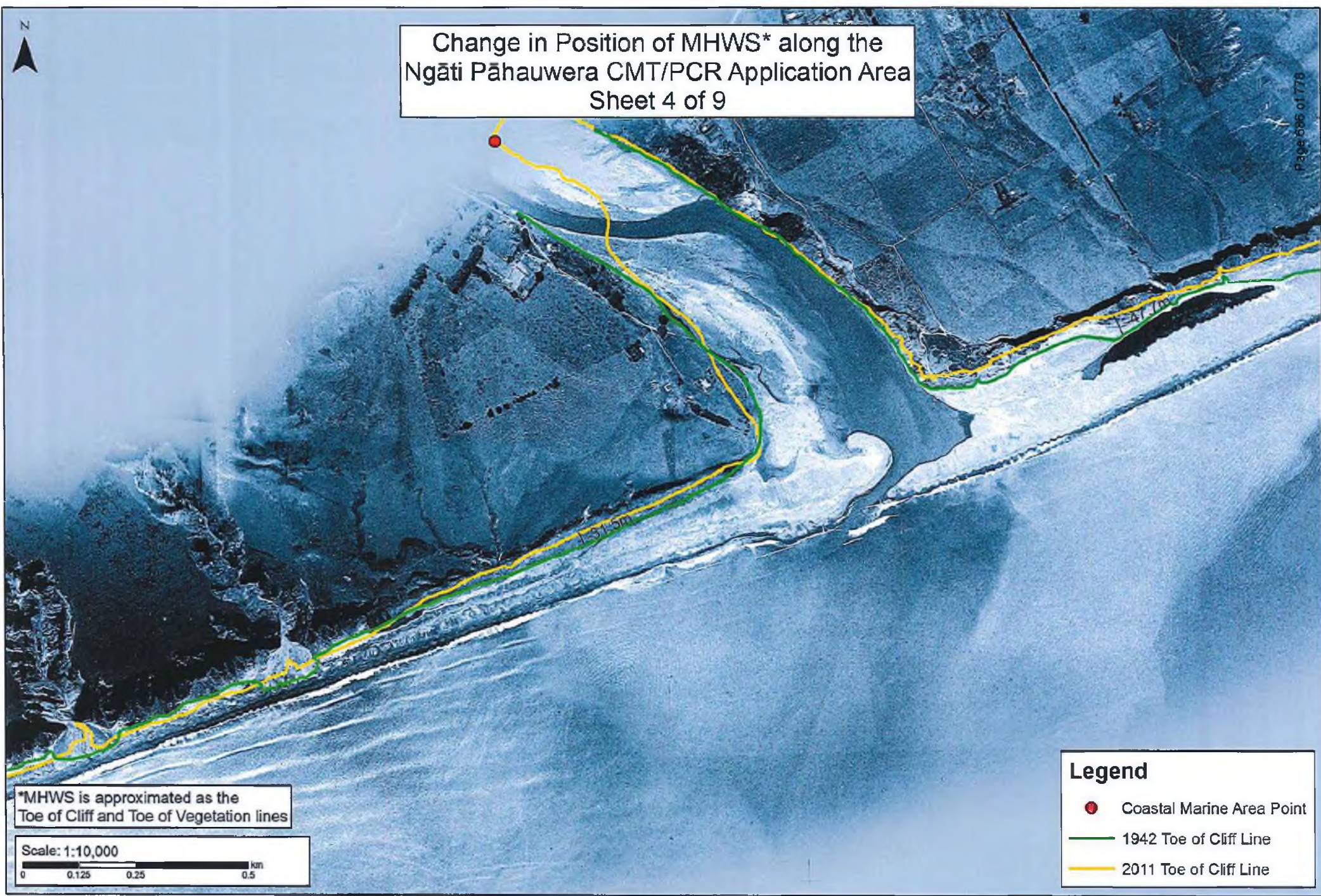


*MHWS is approximated as the
Toe of Cliff and Toe of Vegetation lines



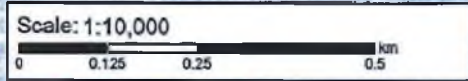
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- Coastal Marine Area Point
- 1942 Toe of Cliff Line
- 2011 Toe of Cliff Line



Change in Position of MHWS* along the
Ngāti Pāhauwera CMT/PCR Application Area
Sheet 4 of 9

*MHWS is approximated as the
Toe of Cliff and Toe of Vegetation lines



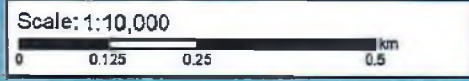
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- Coastal Marine Area Point
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- 2011 Toe of Cliff Line

Change in Position of MHWS* along the
Ngāti Pāhauwera CMT/PCR Application Area
Sheet 4 of 9



*MHWS is approximated as the
Toe of Cliff and Toe of Vegetation lines



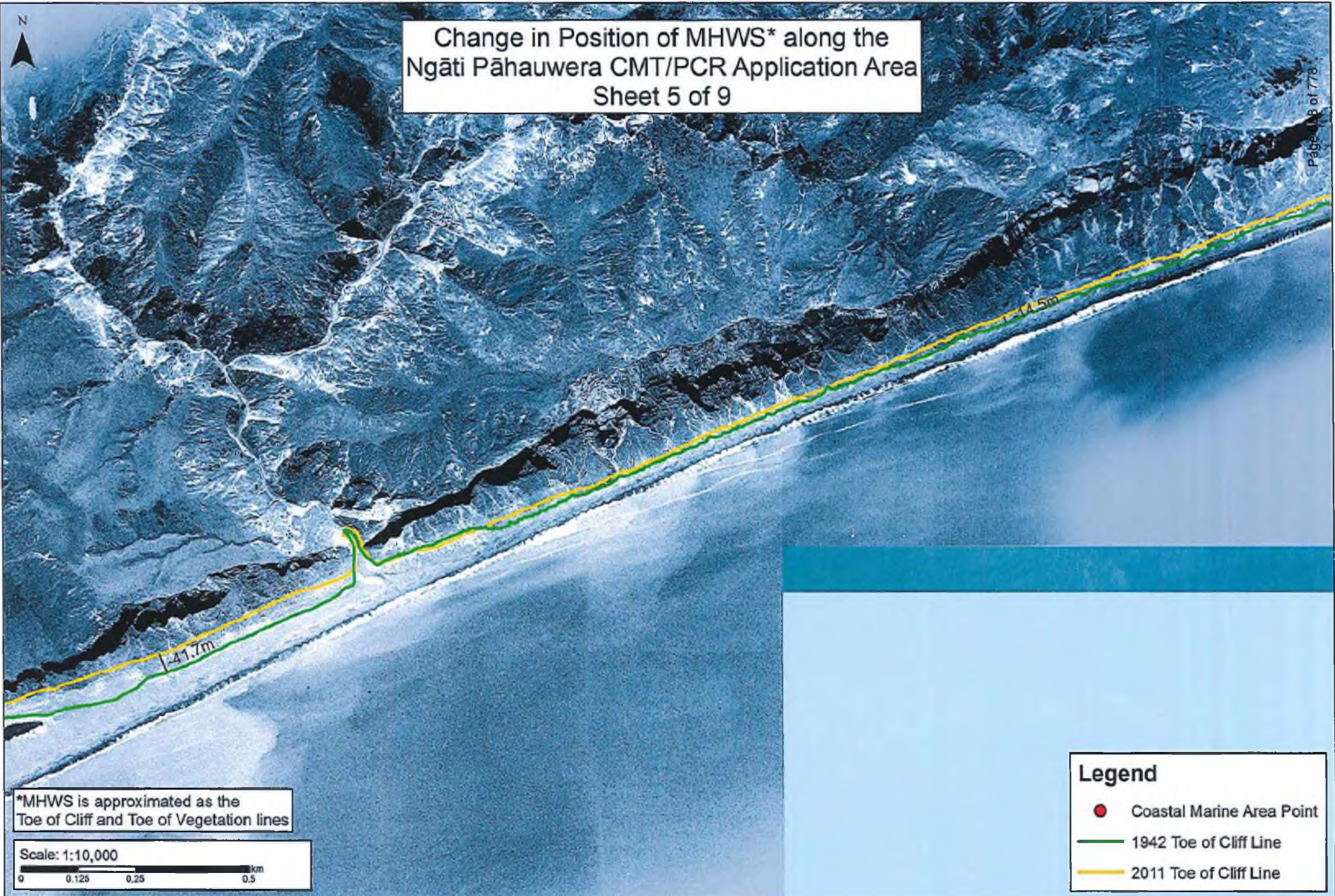
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- Coastal Marine Area Point
- 1942 Toe of Cliff Line
- 2011 Toe of Cliff Line

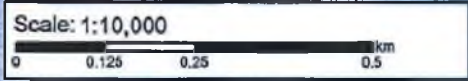


Change in Position of MHWS* along the
Ngāti Pāhauwera CMT/PCR Application Area
Sheet 5 of 9

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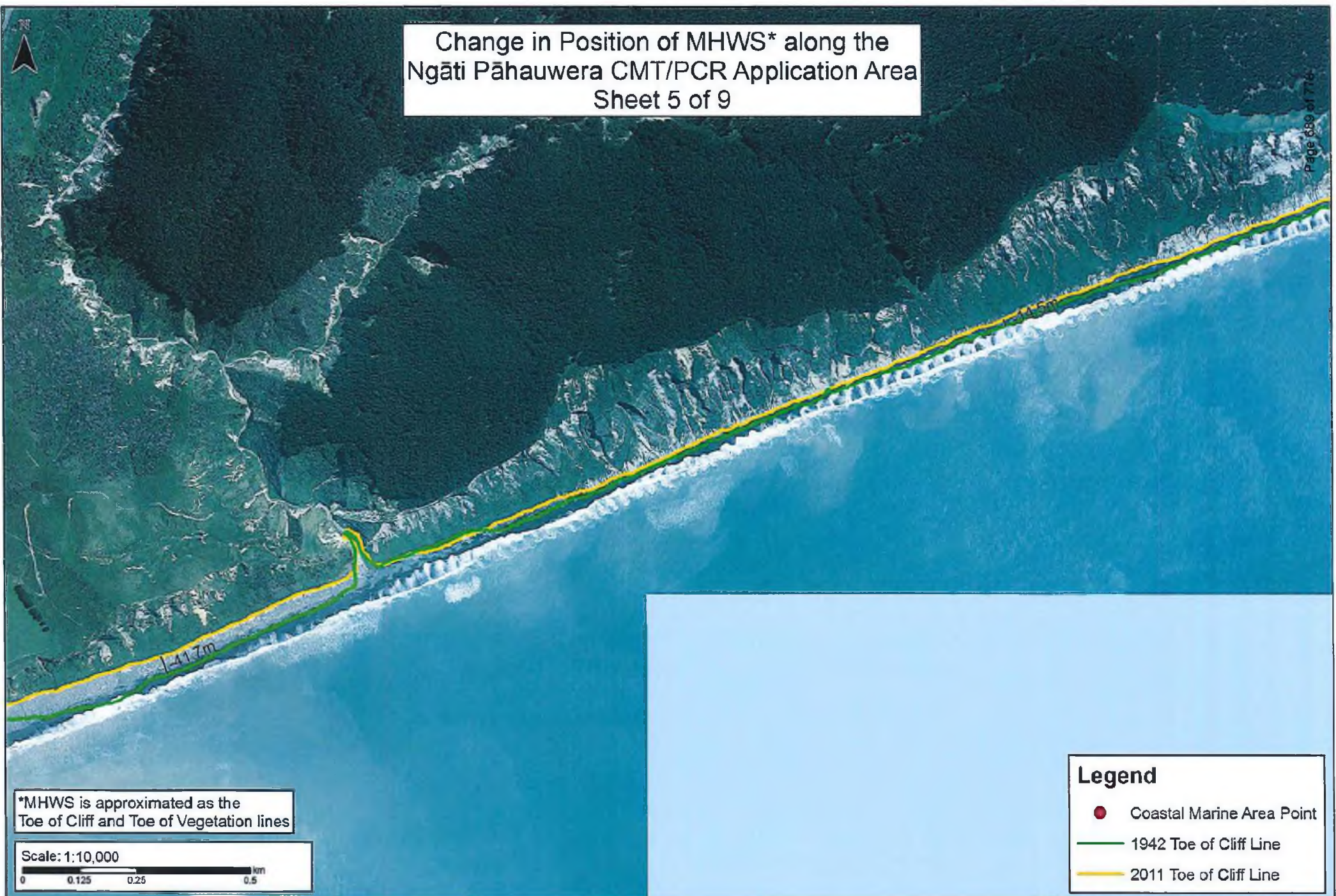
*MHWS is approximated as the
Toe of Cliff and Toe of Vegetation lines



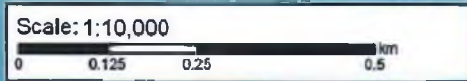
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- Coastal Marine Area Point
- 1942 Toe of Cliff Line
- 2011 Toe of Cliff Line

Change in Position of MHWS* along the
Ngāti Pāhauwera CMT/PCR Application Area
Sheet 5 of 9



*MHWS is approximated as the
Toe of Cliff and Toe of Vegetation lines



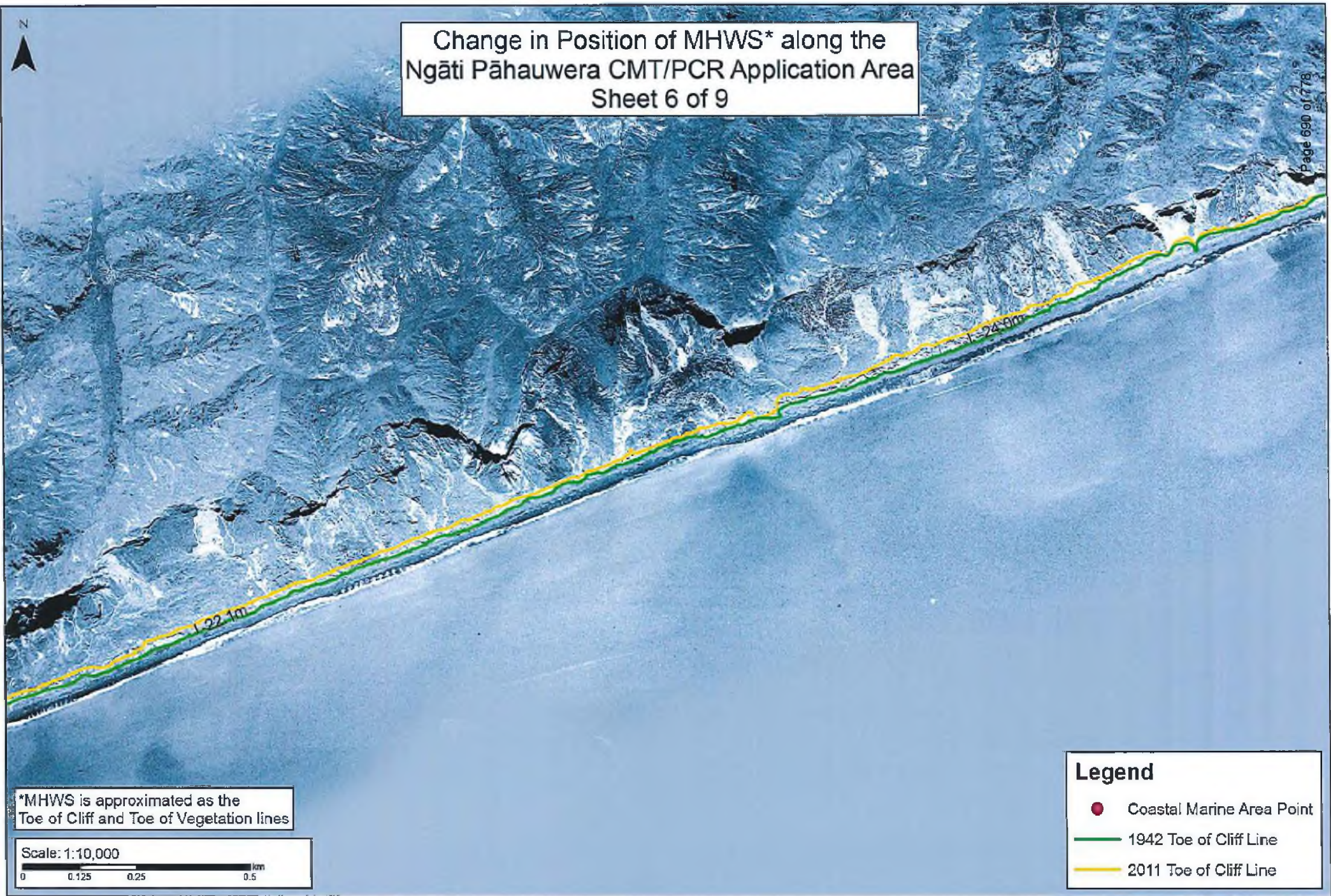
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- Coastal Marine Area Point
- 1942 Toe of Cliff Line
- 2011 Toe of Cliff Line

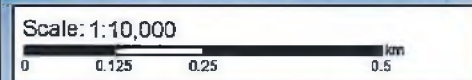


Change in Position of MHWS* along the
Ngāti Pāhauwera CMT/PCR Application Area
Sheet 6 of 9

Page 690 of 778



*MHWS is approximated as the
Toe of Cliff and Toe of Vegetation lines



Legend

- Coastal Marine Area Point
- 1942 Toe of Cliff Line
- 2011 Toe of Cliff Line

Change in Position of MHWS* along the
Ngāti Pāhauwera CMT/PCR Application Area
Sheet 6 of 9



*MHWS is approximated as the
Toe of Cliff and Toe of Vegetation lines

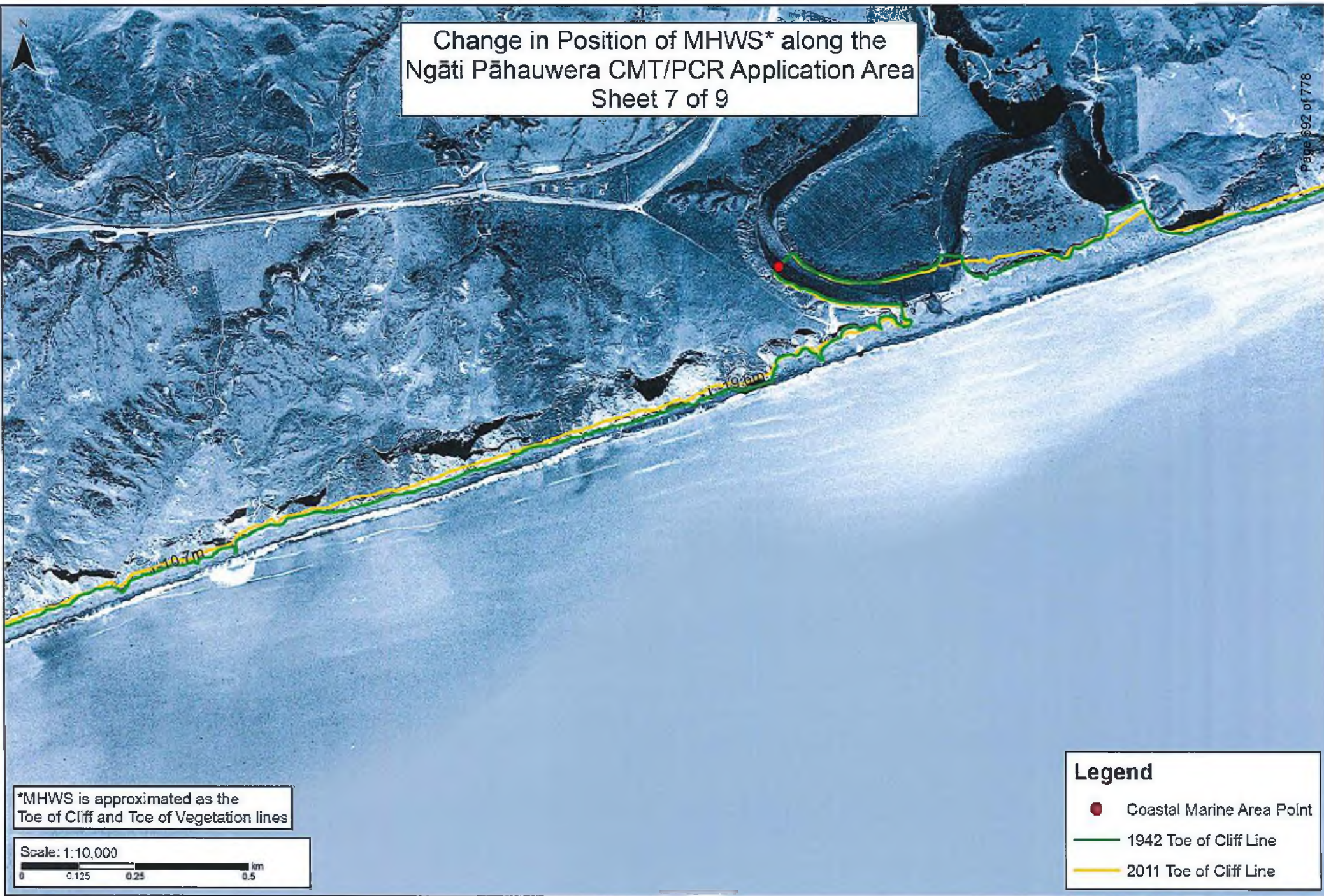


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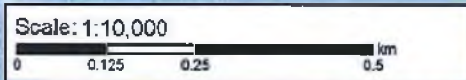
- Coastal Marine Area Point
- 1942 Toe of Cliff Line
- 2011 Toe of Cliff Line

Change in Position of MHWS* along the
Ngāti Pāhauwera CMT/PCR Application Area
Sheet 7 of 9

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*MHWS is approximated as the
Toe of Cliff and Toe of Vegetation lines



Legend

- Coastal Marine Area Point
- 1942 Toe of Cliff Line
- 2011 Toe of Cliff Line

Change in Position of MHWS* along the
Ngāti Pāhauwera CMT/PCR Application Area
Sheet 7 of 9



*MHWS is approximated as the
Toe of Cliff and Toe of Vegetation lines



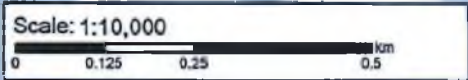
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- Coastal Marine Area Point
- 1942 Toe of Cliff Line
- 2011 Toe of Cliff Line

Change in Position of MHWS* along the
Ngāti Pāhauwera CMT/PCR Application Area
Sheet 8 of 9



*MHWS is approximated as the
Toe of Cliff and Toe of Vegetation lines

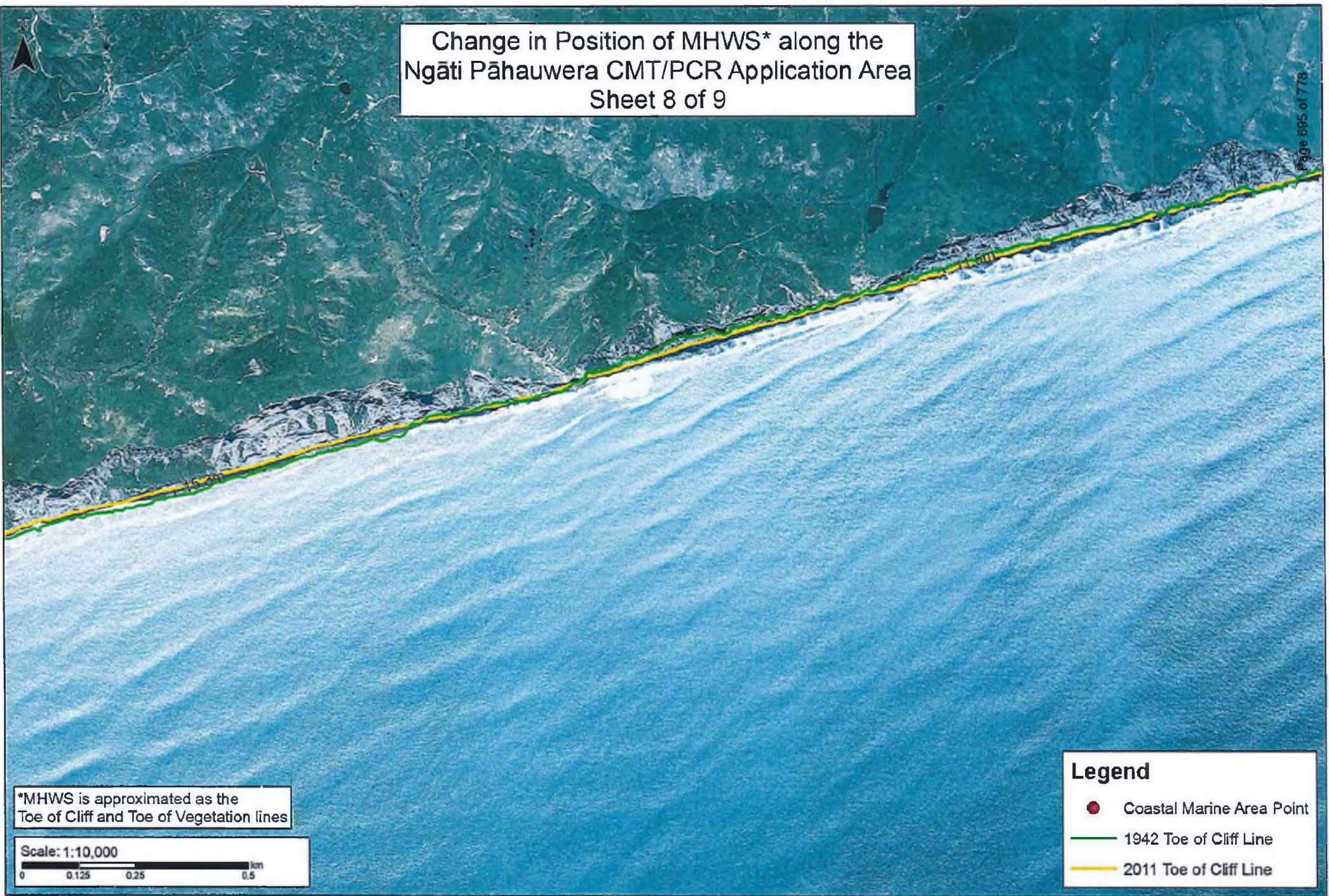


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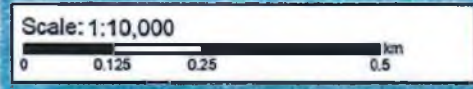
- Coastal Marine Area Point
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Change in Position of MHWS* along the
Ngāti Pāhauwera CMT/PCR Application Area
Sheet 8 of 9

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Toe of Cliff and Toe of Vegetation lines



Legend

- Coastal Marine Area Point
- 1942 Toe of Cliff Line
- 2011 Toe of Cliff Line

Change in Position of MHWS* along the
Ngāti Pāhauwera CMT/PCR Application Area
Sheet 9 of 9



Legend

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- 2011 Toe of Cliff Line

Change in Position of MHWS* along the
Ngāti Pāhauwera CMT/PCR Application Area
Sheet 9 of 9



*MHWS is approximated as the
Toe of Cliff and Toe of Vegetation lines



Legend

- Coastal Marine Area Point
- 1942 Toe of Cliff Line
- 2011 Toe of Cliff Line

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"NN" Hilton F. Verry
Solicitor
Napier

This is the exhibit marked "NN" referred to in the affidavit of Toro Edward Waaka affirmed at NAPIER this 7th day of FEBRUARY 2014 before me

Pre-European bones discovered in Long Bay

MARYKE PENMAN Last updated 05:00 12/07/2013

Signed _____
A Solicitor of the High Court of New Zealand/~~Justice of the Peace~~

Archaeologists are investigating a site at Long Bay after human remains were discovered buried under a demolished building.

Auckland Council has confirmed the "koiwi", or pre-European, bones were found by contractors on July 2 during redevelopment of the Long Bay Restaurant near the beachfront of the regional park.

Work stopped immediately as police were notified.

Ngati Whatua's Glenn Wilcox says there was initial thoughts the remains were missing Torbay woman Cissy Chen.

Kaumatua, or Maori elders, performed a blessing at the site on July 4 and security guards have been keeping watch over the fenced-off area.

A coroner has confirmed the bones are historic and could date back to the early 1700s.

The condition of the remains suggests they are those of a young child, Mr Wilcox says.

"Around 300 years ago was a time of constant unrest in this area. Ngati Whatua was moving south.

"We expect there are many more bodies buried in the area."

Local iwi, including Ngati Whatua and Ngati Paoa, are now working alongside Auckland Council regional park staff, heritage advisers and the restaurant project team.

The bones have been removed from the site for safekeeping, Mr Wilcox says.

Local iwi are not particularly surprised at the finding, he says.

"It sounds a bit mumbo-jumbo, but around six weeks ago a dolphin and a shearwater washed up on the beach just in front of here.

"That was taken as a sign that something was imminent," Mr Wilcox says.

An archaeological assessment report is expected to provide more detail on the find.

Building work has since come to a halt and a council spokesperson says it is unclear whether it will resume.

An application will be made to the New Zealand Historic Places Trust for an authority to permit further investigation of the site.

Mr Wilcox says it is possible a protection order may be placed on the area if it is found to be of particular historic significance.

"We knew there were koiwi here, we just haven't been able to locate them. That is why there was such a large investigation into the Long Bay residential development."

Council northern regional parks principal ranger Mathew Vujcich says: "This is a sensitive discovery and it is important that we handle it with the appropriate care and attention."

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SUNDAY STAR TIMES

THE HIGH COURT OF NEW ZEALAND
WELLINGTON REGISTRY

CIV 2011-485-821

UNDER The Marine and Coastal Area (Takutai Moana) Act 2011

IN THE MATTER OF An application by NGĀTI PĀHAUWERA DEVELOPMENT TRUST for Customary Marine Title and Protected Customary Rights

IN THE MATTER OF An application by NGĀTI PĀHAUWERA (as originally filed by WAYNE TAYLOR, KUKI GREEN AND RUKUMOANA WAINOHU) for Protected Customary Rights

**SUPPLEMENTARY AFFIDAVIT OF TORO EDWARD REGINALD WAAKA
ON BEHALF OF THE TRUSTEES OF THE NGĀTI PĀHAUWERA
DEVELOPMENT AND TIAKI TRUSTS**

AFFIRMED 13 April 2015

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I, **TORO EDWARD REGINALD WAAKA**, Chairman and Tourism Operator of Napier solemnly and sincerely affirm:

1. I am authorised to make this affidavit on behalf of the Trustees of the Ngāti Pāhauwera Development and Tiaki Trusts in response to questions raised by the Independent Assessor in his memorandum dated 10 February 2015. I will answer the questions where possible and in the order that they were asked. This affidavit is made in addition to affidavits on behalf of the Trustees of the Ngāti Pāhauwera Development Trust dated 7 February 2014 and 5 December 2014.

Hāngi Stones

2. The Independent Assessor has asked some questions about our hāngi stones. I would like to provide more information about them.
3. The Independent Assessor has asked about our right to control the extraction of hāngi stones. He says that extraction to his mind "would include operations such as dredging and bulldozing which, I suspect, is not what Ngāti Pāhauwera have in mind."¹ I would like to explain the use of the word "extraction" but first I think it is helpful for the Independent Assessor to know a little more background.
4. We have already provided a lot of evidence about how Ngāti Pāhauwera collect and use our hāngi stones, which I will not go over again here. Our desire to control hāngi stone extraction relates not to our actions but to the actions of non-Pāhauwera. Hāngi stones have been taken by non-Pāhauwera from the Mohaka River and from our beaches over the years and we have always opposed this when it has been without our permission. Janet Huata for example talked about how she complained that a garden centre in Hawkes Bay was selling our hāngi stones and we had these returned to us.²

¹ Memorandum from the Independent Assessor, dated 10 February 2015, at [8].

² Evidence of Janet Huata, dated 31 August 2007 [MLC Hearings, 2008], at [7].

5. In the Mohaka River upstream of the application area, through consents granted by the Council, the removal of gravel for roading takes place using equipment such as bulldozers. This has happened for many years as the Mohaka has long been a source of roading metal for the area.
6. Ngāti Pāhauwera including members of my own family were involved in roading contracts with the government for the road between Wairoa and Napier and with gravel extraction for this. My great Uncle Bill Broughton (Paratene Rewi Poutekupenga) talks in his evidence to the Planning Tribunal about how he worked to extract shingle from the Mohaka River:³

The gravel works started according to the Catchment Board in their records in the late 1940s, I think. But I can go back to 1919 when they first started excavating shingle out of the river. As far as I know, it could have been before that when they started. This was at Arakanihi. They built the first bridge there. In 1919 they started that. We were allowed to get shingle from the river for the concrete works around the bridge. A man I worked with, Patene, he had horse teams working drays. He carted all the shingle. That's not in the records of the Catchment Board. The people of Mohaka were never compensated. Not from the Public Works, the local bodies, railways, you name it.

7. In this quote Uncle Bill says he worked with 'Patene'. I think this is a mis-type and that he was referring to his Uncle 'Paratene' but I cannot confirm this. Paratene's last name was Rewi and he was my great-grandfather. Manuka Taylor was his full brother and Bill Broughton was Manuka Taylor's son. Uncle Bill took Paratene Rewi's name because Paratene brought him up. I spent a lot of time with Uncle Bill who told me about this work, how they would drive big carts into the river and load shingle and stones onto the bed of the cart. He told me how he worked with his Uncle Paratene. However he also told me that in this work the hāngi stones were always pulled out and left on the bank of the river. This was obvious to me because the hāngi stones were ours and they were too precious to be crushed up to go into the roads.
8. The next big extractor of shingle in Mohaka was Davy Jones. He was married to a local woman, my mother's cousin Anita (Dicky) Joe. Davy was allowed to operate because the land he worked belonged to Ngāti Pāhauwera families. Being married into Ngāti Pāhauwera he would have

³ Evidence of Paratene Rewi Poutekupenga, undated, [Planning Tribunal], at [6]

known that he had to follow the tikanga of separating and leaving the hāngi stones.

9. It has not been possible for Ngāti Pāhauwera to police every taking of our hāngi stones over the years. There have been times when we have lost hāngi stones with the gravel. We are also concerned about the sustainability of the gravel extraction generally. These issues were a key part of our Mohaka River claim to the Waitangi Tribunal. In 1992 the Tribunal found:⁴

... removal of gravel and hāngi stones without the approval of Ngati Pahauwera was in breach of the letter and the principles of the Treaty and should not be permitted to continue.

10. In response to this finding the Hawke's Bay Regional Council added a new policy to the regional plan, which today reads as follows:

POL 52 RIVER BED GRAVEL EXTRACTION – MOHAKA RIVER

3.11.11 In relation to the Mohaka River, the:

- (a) annual total volume of extraction for the Mohaka River below the Te Hoe junction
- (b) the location of any extraction sites, and
- (c) the periods and rates of extraction at each site

are to be negotiated and agreed to prior to 30 June each year between the Hawke's Bay Regional Council and nominated representatives of Ngati Pahauwera.

Explanation and Reasons

3.11.12 Policy 52 implements a recommendation of the Waitangi Tribunal.

11. This policy opened the door to negotiating with the Hawkes Bay Regional Council regarding not only gravel extraction but also protection of our hāngi stones from gravel extraction operations. On 5 November 2010 we signed a gravel agreement with the Hawkes Bay Regional Council, annexed and marked "A". The gravel agreement was specifically referred to in our Deed of Settlement which we signed the following month:⁵

⁴ Waitangi Tribunal *The Mohaka River Report* (Wai 119, 1992) at 6.3.

⁵ Deed of Settlement of Historical Claims of Ngāti Pāhauwera (2010), at cl 5.16.

- 5.16 The regional council and the Trustees have agreed to enter into an agreement that relates to the extraction of gravel from the Mohaka River.
12. The gravel agreement provides that each year Ngāti Pāhauwera and the Council agree the sustainable annual gravel allocation, including the overall total annual volume of gravel available for allocation, the volume of gravel allocated to Ngāti Pāhauwera to be either used or left in the river at their discretion, and any volume of gravel available for allocation to all other users, the location of all extraction sites and the volume of extraction at each site.⁶ In the four years since the gravel agreement was signed, Ngāti Pāhauwera have not extracted the gravel allocated to us. We have chosen to keep it in the river, where it can contribute to the river's health, clean the water and make the kahawai taste better.
13. The gravel agreement includes a monitoring position for a member of Ngāti Pāhauwera.⁷ Our monitor is Tuki King who checks that gravel is taken properly, that the right amounts are taken and that hāngi stones are separated.
14. I want to emphasis that even with the gravel agreement in place we don't just rely on one piece of paper to protect our river and our hāngi stones. One of the larger firms extracting gravel today is Knights. Pan Pac, which forests land returned to us in the Treaty Settlement, also extracts shingle for forestry roads. In addition to our gravel agreement with the Council, we have informal agreements with both companies. Furthermore, a number of their shingle extraction workers are Ngāti Pāhauwera. They are very vocal and inform us if they believe any rules are being breached. Companies extracting gravel from the Mohaka River generally co-operate with us because most of the beaches they operate from or need to access are controlled by Ngāti Pāhauwera.
15. The gravel agreement also records that the taking of hāngi stones except as provided by our settlement Act is an offence.⁸ This is because by the

⁶ *Deed of Agreement between Ngāti Pāhauwera (Ngāti Pāhauwera Development Trust) and the Hawke's Bay Regional Council for the Allocation and Management of River Gravel* (6 November 2010) ["Gravel Agreement"], at cl 4.

⁷ Gravel Agreement, at clauses 8 and 10-11.

⁸ Gravel Agreement, cl 19.

time the gravel agreement was ready, we had managed to negotiate with the Crown an overarching protection related to our hāngi stones. Through our Treaty Settlement negotiations with the Crown we sought recognition that we are the owners of our hāngi stones. This was ultimately reflected in the hāngi stones provisions of the Ngāti Pāhauwera Treaty Claims Settlement Act 2012, which are annexed and marked "B". They provide that no one may take hāngi stones from the bed of the Mohaka River or Te Hoe River in our core area of interest without the written permission of us, the Trustees of the Ngāti Pāhauwera Development Trust.

16. The wording in the letter from Harley Spence referring to a right "to control hāngi stones extraction" is taken directly from the Ngāti Pāhauwera Treaty Claims Settlement Act 2012 which also uses the terminology of "extraction". However it does not have any technical meaning relating to operations such as dredging or bulldozing. Extraction simply means removal or taking of any kind. No one is allowed to take our hāngi stones in any way and for any reason without our permission. We even covered off the separating out of hāngi stones by gravel extractors. Any hāngi stones accidentally picked up as part of any other activity including gravel extraction must be returned to their original position or as close as possible or to another place in the vicinity if directed by us.⁹
17. The hāngi stones provisions provide real protection for our taonga. The only problem with the hāngi stones provisions is that they do not cover all our hāngi stones. We sought and originally discussed control of all of our hāngi stones in the rivers and our moana as they are all taonga of Ngāti Pāhauwera. However because the Foreshore and Seabed aspect of our dual Treaty and Foreshore and Seabed negotiations was put on hold while the government reviewed the Foreshore and Seabed Act, we were advised that negotiations regarding the hāngi stones in our moana had to wait. I will not go into detail here, except to say that the letter from Harley Spence came after further discussions and simply reflects this history.
18. To conclude my comments about our hāngi stones I would like to provide a further brief update. In my previous affidavit, I talked about how Ngāti

⁹ Ngāti Pāhauwera Treaty Claims Settlement Act 2012, s 58(2).

Pāhauwera has traditionally taken hāngi stones to marae where we have whānau relationships and how I took hāngi stones to Whangarā at the request of their kaumātua John Taumanu.¹⁰ Recently I attended the tangi of Api Mahuika and was asked by another kaumātua to bring more stones. They need to be replaced as they do disintegrate over time. I will arrange for this to happen or probably do it myself.

19. A number of our whānau have married into people from the Waipiro Bay area. Hāngi stones have been taken to Kiekie Marae to Ngāti Porou (near Waipiro Bay) in recent weeks. Pāhauwera whānau who have married into Waipiro Bay include the Joes, Harrisons, Northovers, Huatas and the Parkers. It is through these contacts that requests are made. The recent request for hāngi stones for Kiekie Marae was made by Lena Joe who was married to Ramon Joe, who is discussed above. She is a Fox from Kiekie.
20. Sixty hāngi stones were taken by myself and Kuki Green up to Parekura Horomias tangi. These practices are part of our customary exchanges we do with regions where we have whakapapa ties that reinforce Te Kupenga o Te Huki. The net of whakapapa relationships.

Mohaka River mouth

21. The Independent Assessor asked if the Crown had vested the Mohaka River in Ngāti Pāhauwera.¹¹ I would like to stress again an important point about this. At no stage ever have Ngāti Pāhauwera conceded that the Mohaka River was not ours, and certainly not that the Crown was capable of vesting it in anyone. As I said in my previous personal affidavit "We have consistently opposed attempts by others to control our rohe and moana."¹²
22. My Uncle Ramon Joe nearly twenty five years ago questioned the Crown's assumption that it had any authority over the Mohaka River. His comments were in the context of a hearing about the Mohaka River but apply equally to the whole application area:

¹⁰ Evidence of Toro Waaka, dated 17 January, [TMA Application 2013], at [62].

¹¹ Memorandum from the Independent Assessor, dated 10 February 2015, at [9].

¹² Evidence of Toro Waaka, dated 17 January 2014, [TMA Application 2013], at [72].

Where did the Crown get the authority or even the assumption that it was the authority to monitor how the river and its resources are to be used? Remember that Ngāti Pāhauwera are its rightful owners have always had "kaitiaki" as guardians and not once until recently has there been dialogue... about the river and its many resources.¹³

23. I cannot see how Ngāti Pāhauwera can be much clearer than this. As I said when the Independent Assessor visited Mohaka in December 2014, it is a humbling experience to try to prove to someone else that what is yours is yours.

24. Ngāti Pāhauwera has entered into no agreements with the Crown to surrender our property rights relating to rivers, the foreshore or the sea. We never vested the Mohaka River in the Crown so it is in no position to return it to us.

Beach Battles

25. The Independent Assessor asked for more information about armies using the beach for passage; battles on the beach; and slain warriors being buried on the beach.¹⁴ I would like to provide some more information about this.

26. Ngāti Pāhauwera were and are aware of the dangers of coastal travel. Adversarial parties were often strangers to the area and when they met with Ngāti Pāhauwera people it was generally on the routes that Ngāti Pāhauwera were travelling. These travel routes were a mixture of travel along the beach, inland, and in waka travelling close to the coast. An extract, annexed and marked "C" from Angela Ballara's book *Taua* confirms that waka often travelled close to shore, landing frequently. The book describes one particular campaign where a long distance taua travelled to obtain utu. The waka stopped regularly along the coast to camp and gather food.

27. There were no roads as such so it would have been much easier to walk along the beach than to bushwhack. If war parties did not travel along the coast and chose to go inland, they still would have followed the rivers and

¹³ Evidence of Ramon Joe, undated, [Waitangi Tribunal Hearings, 1992] at 2.

¹⁴ Memorandum from the Independent Assessor, dated 10 February 2015, at [11].

ridges rather than cut their way through the bush. The early officials such as Mclean are a good example of the preference for coastai travel. They followed the beach and were fortunate to have guides to show them where to deviate inland where the coast was impassable.

28. It is true that armies and raiding parties also used waka to travel quickly to their intended target. However, even if you are on a waka you can only land at certain access points: tauranga waka, and this will have applied to any war parties which may have travelled by waka to the area. Those access points are generally rivers, river mouths and streams. These were naturally good places for the locals to wait and hide and then to attack and vice versa. Also, travel by waka had its dangers and was not necessarily preferable. For example in an extract from 'Pioneering Reminiscences of Old Wairoa', annexed and marked "D", Lambert recorded:¹⁵

Many a war-canoe journeying between Wairoa and Turanganui and Waimarama came to grief. And in one trip to or from Turanganui the Wairoa Chief, Tiakitai of Kihitu, lost his life.

29. Lambert also outlines shipping events in busy Hawke's Bay, between Napier and Gisborne. There are several pages outlining the names of vessels and areas that ships floundered:¹⁶

to give the full history of these boats or to tell of the men who "go down to the sea in ships" would overload this booklet

30. Finally, I described in my personal affidavit that in the 1990s the Tamatea Ariki Nui canoe was part of Waitangi Day Celebrations.¹⁷ In June 2013 the waka Te Matau a Maui had trouble with bad weather while travelling from Napier to Wellington. An article about this is annexed and marked "E". Again in February 2014 for Waitangi Celebrations a number of waka were unable to sail to Waitangi (articles annexed and marked "F"). Luckily, in each of these examples there were no casualties. Difficulties with weather are a fact of life when sailing. Common sense dictates that if the weather

¹⁵ Lambert, T., *Pioneering Reminisces of Old Wairoa*, (Thomas Avery and Sons, 1936), annexed and marked "D", at 106

¹⁶ Lambert, T., *Pioneering Reminisces of Old Wairoa*, (Thomas Avery and Sons, 1936), annexed and marked "D", at 105.

¹⁷ Evidence of Toro Waaka on behalf of the Trustees of the Ngāti Pāhauwera Development and Tiaki Trusts, dated 7 February 2014, [TMA Application 2013], at [69].

is rough you would travel closer to the coast, so that you could pull in if need be.

31. The Independent Assessor asked some questions about the battles referred to in my earlier affidavit. I provide the following clarification:

31.1. The Waikari battle was between Ngāti Wharekiri and a taua from Tūwharetoa. Ngāti Wharekiri were a section of the Ngāi Te Aonui hapū of Ngāti Pāhauwera. Ngāi Te Aonui are one of the hapū mentioned in Guthrie's *Tutira* book (extract annexed and marked "G");¹⁸

31.2. Very little is known about the Otia battle except that Kupe was involved in the battle and was wounded. The battle was one that started in Hawaiiki and ended in Aotearoa, it was on beaches and the sea. The leaders of the opposing side was Maturangi and Te Wheke. This history was adapted and is now told as an allegory to assist children to remember and Te Wheke is now depicted as an octopus. Kupe is remembered in our area through the naming of the Matahorua gorge which was the name of his canoe;

31.3. Te Umu Toto of Hoeata was 12 generations ago; and

31.4. The Waihua battle was approximately 16 generations ago.

32. These examples are across many generations but are still important to us. In providing these examples I was not suggesting that battles only occurred on the beach. The fact is that over hundreds of years of occupation in the area, that there were a number of battles on the beach, just as there were inland. There was no one way to do things.

33. As I already mentioned in my earlier affidavit, there were no sophisticated digging implements in earlier times, so burying in soft sand was a practical way to deal with this. A lot of the urupā in the area between Napier and

¹⁸ Guthrie Smith, H, *Tutira: The story of a New Zealand Sheep Station*, (3rd ed. William Blackwood & Sons Ltd. 1953), at 67.

Māhia were on beaches due to the ease of excavation. These burial places were at Petane, Tangoio, Whakaari, Aropaoanui, Waikari, Mohaka, Waihua, Wairoa, Whakakī and Māhia. I am not talking about cemeteries here, I am talking about places that our people and others were buried. In 1948, Frost wrote about Māori burial practices in pre-European days (extract annexed and marked "H"). Every effort was made to hide the bodies of their dead comrades because it was a 'great feat to obtain the head and other parts of the anatomy of the fallen warrior'.¹⁹ He describes how they might hide the body in a cave or a tree and come back years later and collect the body when they could, usually in times of peace:²⁰

It can be seen, therefore, that in the course of time, in various parts of the country, there would be quite a number of these remains deposited over the years.

34. Frost's book title refers to the bush and rivers, so he is not focused on beach travel. However annexed and marked "I" is an extract from *Maori Warfare* which does talk about beach travel by warring parties.²¹ It is easy to imagine that after a beach fracas fallen warriors would be buried in the sand or in caves, because there was nowhere else to put them.
35. The Independent Assessor notes that this information is used in part to support our wāhi tapu application. However I want to stress that the deaths that occurred in the application area are only one aspect of why the application area is a wāhi tapu to Ngāti Pāhauwera, as I will discuss in the next section of my affidavit.

Wāhi Tapu

36. I understand that our wāhi tapu area are protected under the Treaty of Waitangi as our taonga – Justice Cooke said "the duty of the Crown is not merely passive but extends to active protection of Maori people in the use of their lands and waters to the fullest extent practicable".²² A taonga to Pāhauwera is the gifts that our ancestors bequeathed to us to guard, care and look after. I am concerned that the Independent Assessor not get an

¹⁹ Frost, ET, *Maori Trails and Pakeha Tracks: Tales of Bush and River*, (3 March 1948), p 51.

²⁰ Frost, ET, *Maori Trails and Pakeha Tracks: Tales of Bush and River*, (3 March 1948), p51.

²¹ AP Vayda, *Maori Warfare*, 9 May 1975.

²² *New Zealand Maori Council v Attorney-General* [1987] 1 NZLR 641, at p 664.

artificially narrow impression of wāhi tapu. We have stated all of our moana is tapu. We are no different from any other iwi in that respect. As Māori believe we are all sacredly interconnected with the environment as descendants of Papatuanuku and Tangaroa.

37. There are many more categories of tapu than places where people have died or are buried, and wāhi tapu refers to a range of sites of significance to tangata whenua. Some indicators are places where important activities took place, these include: ceremonies, rituals, the keeping of taonga in a particular place, the resting places of significant waka, the washing of the dead in a specific stream or spring used for that purpose only, as is the case for the use of an area for birthing, the gathering of, and bathing in, wai tapu. This also applies to places where our ancestors lives, like old pā sites. Wāhi tapu also help us to maintain the health of our waters as it prevents pollution so that the waters can be safely used.

38. In his Mohaka River evidence Ramon Joe has map of wāhi tapu, urupā, wāhi rongoa and mahinga ika on the Mohaka River.²³ As you can see, all along the length of the river are points to note. This would be the same along each of the rivers and streams and coast and would be known by those who have ancestors that lived, and those who continue to live nearby. For example, those in Mohaka and Raupunga will have more of the knowledge of the Mohaka River and those in and from Waihua will have more knowledge of the Waihua and streams nearby. Ramon Joe's evidence also has songs/poems which discuss the massacre at Mohaka.²⁴

39. Ramon Joe's evidence also helps to explain why we have not taken a similar approach to attempt to pinpoint particular places in the application area. His comments show how frustrating it was to be misunderstood. In his evidence he states:²⁵

It is obvious to me that the people who made the statements have not heard the words, mana, mauri, wairua... and are trying to separate the physical from the spiritual

²³ Evidence of Ramon Joe, undated, [Waitangi Tribunal Hearings, 1992], Wai 201, A037(e), at 3.

²⁴ Evidence of Ramon Joe, undated, [Waitangi Tribunal Hearings, 1992] Wai 201, A037(e).

²⁵ Evidence of Ramon Joe, undated, [Waitangi Tribunal Hearings, 1992], Wai 201, B002, at 3.

40. To us there is a sense of tapu about places that we use all of the time, they are not just places which are kept separate. Ramon Joe also expressed the futility in identifying specific places because this provides them with no protection anyway. He discusses the double standard that if a dinosaur fossil was found, that an area would not be dammed and covered in water:²⁶

but by the same token it is quite in order to cover with water the mortal remains of Ngati Pahauwera tipuna who are buried along the river banks.

41. The view of wahi tapu as only small, specified places of death or urupā is a stereotype. We simply do need the wāhi tapu protections we have sought. Tapu helps us to protect the natural values of the application area as well as our cultural values. Naturally there are degrees of tapu, some describe this as the mana of the tapu. Some parts of the application area are more tapu than others, and we have highlighted how taniwha reside in our river mouths as an example. Also our connection to Papatūānuku and Tangaroa throughout the application area is important and reinforces the spiritual and environmental values that can be protected by acknowledging the whole application area as tapu.

42. We do not see water as something separate from tapu. For example burial caves, streams to wash tupāpāku, the previous discovery of kōiwi, beach burials, all adds up to a big picture of our moana being tapu.

43. I am aware that the Courts have sometimes in the past relied on a stereotype of wāhi tapu. However, I am aware that the Crown has not always taken such a restrictive view. For example in the Department of Conservation discussion document annexed and marked "J", the following list of possible definitions of wāhi tapu was set out:

- Waahi tapu is land of special spiritual, cultural or historical [Maori] tribal significance.
- Waahi tapu means a place sacred to Maori in the traditional, religious, ritual or mythological sense'.
- A waahi tapu is a place or feature that has special significance to a particular tribal group'.
- Maori waahi tapu are cultural sites of spiritual value which can be loosely classed as "sacred" sites and provide genealogical links for Maori and often merge recent history into the stories of creation'.

²⁶ Evidence of Ramon Joe, undated, [Waitangi Tribunal Hearings, 1992], Wai 201 A037, at 4.

- Waahi tapu include objects or features (of land and water) of special spiritual, cultural, historical or emotional significance or association to tangata whenuas.
- Waahi tapu (waahi taonga) includes all those natural resources that sustain life, and that are culturally and historically important to ... the tribe to which they belong'.
- A waahi tapu is a place known to be associated with the tupuna and does not need to have obvious archaeological surface features'.
- Waahi tapu are a particular type of traditional Maori site and historic places.
- Waahi tapu are places held in reverence according to tribal custom and history.

44. This is not a Ngāti Pāhauwera document but it still reflects what we are saying about the application area being tapu and requiring protection. The fourth to last definition in particular shows that the "places of burial and death" stereotype of wāhi tapu is incomplete.

45. Perhaps the Courts have looked at commercial considerations which have nothing to do with tapu. As kaitiaki, the values of the local community and what we see as needing protection is paramount, not the commercial needs or considerations of others.

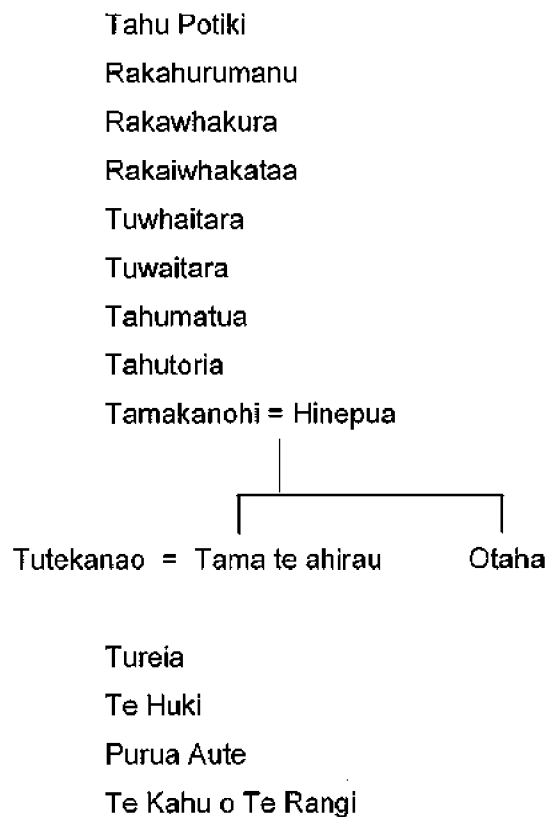
46. In any event there is not a landmark or spot in the application area where we could say no protection is required past this. The application area only ends at 12 miles because that is as far as we can apply under the Marine and Coastal Area (Takutai Moana) Act 2011. It is our obligation to protect the application area, and we cannot choose a part of our application area that is less important.

Ngāi Tahu

47. The Independent Assessor has asked what is Ngāi Tahu and is it in any way related to the large South Island Iwi.²⁷ Ngāi Tahu is one of the hapū of the Ngāti Pāhauwera Confederation of hapū. It is included in the list of hapū which are represented by the Ngāti Pāhauwera Development Trust.

²⁷ Memorandum from the Independent Assessor, dated 10 February 2015, at 15(a).

48. Tahu Pōtiki was one of the eponymous ancestors whose descendants lived in the area between Māhia to Porongahau (South of Waipukurau). A branch of that family moved to the South Island and they continue to call themselves Ngāi Tahu. Ngāti Pāhauwera are also descendants of Tahu Pōtiki and the emphasis is on a different descent line to that of the Ngāi Tahu in the South Island. The genealogy below shows the descent line down to ancestors of importance to Pāhauwera, being Tureia then Te Huki, then Purua Aute and Te Kahu o Te Rangi, who the Independent Assessor would have seen mentioned in evidence already submitted.



49. As the generations have passed, the names which people have called themselves have changed. It is common for names of iwi to change over time. In Tureia's time Ngāti Pāhauwera were called Te Tini o Tureia, and in Te Huki's time we were called Ngāi Te Huki, in Purua Aute's time, we were called Ngāti Purua. In Te Kahu o Te Rangi's time the name was Ngāti Kahu o Te Rangi. Whatever the name most commonly used by each generation, the people and their ancestors did not change. It is only since colonisation that all the hapū related to Te Kahu o Te Rangi combined to unite against a common threat and use the name Ngāti Pāhauwera.

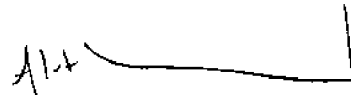
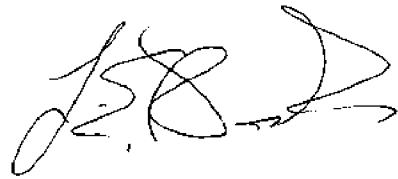
50. Malcolm Kingi chooses to identify as Ngāi Tahu using Otaha, a sibling of Tama te Ahirau. I like most other Ngāti Pāhauwera am also a descendant of Otaha. In choosing to identify in this way Malcolm emphasises a specific line which is not unusual, and he is entitled to choose his own identity. Many other people and iwi or hapū may do the same thing. I also note that Malcolm refers to the hapū Ngāti Tahumatua, which is named for the Tahumatua listed in the above genealogy.
51. By choosing Ngai Tahu as his identity, Malcolm holds onto an older name when many others from his same whakapapa line use Ngāti Pāhauwera. Again, there is no problem with this as names of iwi, hapū and individuals are very fluid in Ngāti Pāhauwera. Malcolm is still one of us. As I have identified in the previous paragraph, iwi names can change in a generation. Māori have a different view to names in general. In an earlier paragraph I talked about Rewi Paratene and Manuka Taylor. They were full brothers but had different last names. Manuka took the last name Taylor because he was asked to take the name of the local Tangoio chief Te Teira who wanted someone with the right whakapapa to take on his name and responsibilities when he died as he had no living offspring. Taylor is a transliteration of Te Teira.
52. Paratene Rewi had a daughter Ketia Paratene. Ketia was my Grandmother. She took her father's first name as her last name. . Bill Broughton has for his surname a transliteration of Paratene - Broughton. My mother Awhina Waaka had three different names before marriage. She was called Awhina Tio and Awhina Pokia but many called her Awhina Joe, with Joe being a transliteration of Tio. Her father's first name was Pokia and his surname was Tiopira. This was a customary practice.
53. One of our significant ancestors was Te Kahu o Te Rangi. He received this name from Te Otane when he was an adult. He was previously Te Wainohu. That is not to say that names changed on a whim, there was always a reason behind it.



54. In the main, iwi names have been frozen in time because of the need for 'mandates' and government processes. It is only through colonisation that the names are categorised and 'frozen in time', most particularly by our settlement legislation – the Ngāti Pāhauwera Treaty Claims Settlement Act 2012. As previously described, Ngāti Pāhauwera the confederation was a karangatanga, a calling together of many smaller hapū. Malcolm Kingi's whakapapa from Ngāi Tahu is the same as many other members of Ngāti Pāhauwera and certainly any who descend from ~~Te Kōwhiri~~ Tureia, Te Huki, Purua Aute or Te Kahu o Te Rangi. For this reason Ngāi Tahu is included in the definition of Ngāti Pāhauwera and Malcolm and the other Ngāi Tahu descendants from this area are represented by us.

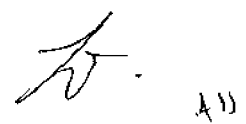
55. It is difficult to condense hundreds of years of history and context into this affidavit, or even all of the information already provided to the Independent Assessor. I hope that this has given some clarity and further background to the questions asked.

Affirmed at *Napier* this 13th)
day of *April* 2015)
before me:)



A Solicitor of the High Court of New Zealand/Justice of the Peace

Ailie Sutherland
Solicitor
Napier



"A"

DEED OF AGREEMENT

between Ngāti Pāhauwera (Ngāti Pāhauwera Development Trust) and the
Hawke's Bay Regional Council
for the Allocation and Management of River Gravel

Recitals

1. This agreement addresses the management of the gravel resource within the river, reflecting the importance of the Mohaka River and in particular the gravel resource within the river to Ngāti Pāhauwera. It arises out of the settlement between Ngāti Pāhauwera and the Crown to settle the historical Treaty claims of Ngāti Pāhauwera, and is recognised in clause 5.16 of the Deed of Settlement of the Historical Claims of Ngāti Pāhauwera.
2. The parties agree on the following regarding the allocation and management of gravel in the Mohaka River below Te Hoe:
 - 2.1 Definition of gravel
 - 2.2 Agreement on Management of the Gravel Resource
 - 2.3 Monitoring
 - 2.4 Correspondence to Contractors
 - 2.5 Research
 - 2.6 Dispute Resolution
 - 2.7 Duration and status of agreement
 - 2.8 Addresses of the parties

This is the exhibit marked "A" referred to in the affidavit of
Toro Edward Waaka on behalf of the Trustees of the Ngāti
Pāhauwera Development and Tiaki Trusts affirmed at

Napier this 13th day of
April 2015 before me

Signature: 

A Solicitor of the High Court of New Zealand / Justice of the
Peace


Julie Sutherland
Solicitor
Napier

Definition of gravel

3. For the purposes of this document, gravel includes all rock and soil material located in a river bed, and which is derived from catchment erosion processes and includes all technical categories of such material including shingle, silts and clays, and includes other generally accepted terms such as aggregates. The definition of gravel does not include hangi stones, which are governed by the Ngāti Pāhauwera Treaty Claims Settlement Act [2010], and are defined as naturally occurring rounded rocks, typically basalt, rhyolite or andesite volcanic cobbles, typically lacking in fracture planes and having dense crystalline texture giving them the capacity to retain heat and being commonly found in deposits of volcanic debris.

Agreement on Management of the Gravel Resource

4. The Ngāti Pāhauwera Development Trust and Hawke's Bay Regional Council shall, for the Mohaka River below the Te Hoe junction, prior to 30 April each year negotiate and agree in accordance with the process set out in schedule 1 for the following 12 month period commencing 1 July ("the annual allocation period"):
 - 4.1 the sustainable annual gravel allocation, including:
 - 4.1.1 the overall total annual volume of gravel available for allocation;
 - 4.1.2 the volume of gravel allocated to Ngāti Pāhauwera to be either used or left in the river at their discretion; and
 - 4.1.3 any volume of gravel available for allocation to all other users.
 - 4.2 the location of all extraction sites; and
 - 4.3 the volume of extraction at each site.
5. In the event of unforeseen circumstances during the annual allocation period, the parties may by mutual agreement undertake a review of the matters set out in 4.1 to 4.3. Any such review shall be completed in two weeks, otherwise the current allocation shall remain in place. The parties may agree to suspend the current agreed allocation while review takes place but otherwise it shall remain in place.

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6. During the course of the annual allocation period Ngāti Pāhauwera Development Trust (through the monitor) and Hawke's Bay Regional Council (through the appropriate officer) shall determine all applications for resource consents relating to the allocations Ngāti Pāhauwera and any special conditions including whether full allocation can be taken and any restrictions on an area, except when the applicant is the Ngāti Pāhauwera Development Trust, in which case Hawke's Bay Regional Council shall make the determination.
7. Ngāti Pāhauwera Development Trust and Hawke's Bay Regional Council have reached agreement on the standard conditions of consent set out in Schedule 3 which shall be reviewed no less than annually.

Monitoring

8. Ngāti Pāhauwera Development Trust will appoint a monitor to work in liaison with Hawke's Bay Regional Council staff to undertake monitoring of associated gravel takes for that year, including extraction and contractor compliance, and negotiate and agree on behalf of the Ngāti Pāhauwera Development Trust, the matters set out at clause 6. The details of this monitoring position are set out in schedule 2.

Correspondence to Contractors

9. All correspondence to contractors including allocation requests, notification of allocation and consents will be issued by the Hawke's Bay Regional Council and copied to the Ngāti Pāhauwera Development Trust and the monitor.

Research

10. Ngāti Pāhauwera Development Trust and the Hawke's Bay Regional Council shall agree on any research necessary for the management of the gravel resource below Te Hoe including any research necessary to confirm the sustainable allocation of gravel.
11. Research shall be commissioned jointly by Ngāti Pāhauwera Development Trust and the Hawke's Bay Regional Council.

12. The Research Plan shall be funded by the allocation/consent fee levied from extractors.

Dispute Resolution

13. If the parties are unable to reach agreement on the matters set out in clauses 4, 5 and 7 by 30 April:
- 13.1 Either party may refer the dispute to mediation with a mediator agreed between the parties;
- 13.2 If the parties do not agree on a mediator, the President of the New Zealand Law Society is to appoint the mediator.
14. If no agreement can be reached on any application for a resource consent to which clause 6 applies they will be determined by a commissioner appointed pursuant to section 34A of the Resource Management Act 1991.

Duration and status of agreement

15. This agreement shall continue until terminated or varied by the parties. Any such termination or variation shall not be valid unless in writing and executed by both parties in accordance with the local governance statements of the Hawkes Bay Regional Council, and the Ngāti Pāhauwera Development Trust Deed respectively.
16. In the event of any inconsistency between this agreement and the provisions of the Regional Plan, this agreement shall prevail.
17. The parties agree that if a change in circumstances has the effect of terminating or reducing the participation role for Ngāti Pāhauwera set out in this agreement, the Hawkes Bay Regional Council and the Ngāti Pāhauwera Development Trust may approach the Crown to discuss how the role can be re-instated or otherwise given effect to.

ga.
Jo.
R.

Addresses of the parties

18. The Address for service of the parties shall be as each party notifies the other in writing from time to time. At the time that this agreement comes into force, the addresses shall be as follows:

18.1 Ngāti Pāhauwera Development Trust:

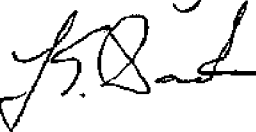
P O Box 374
Wairoa 4160
Phone 06 838 6869
Email npdtt@xtra.co.nz

18.2 Hawkes Bay Regional Council:

Private Bag 6006
Napier 4110
Phone 06 835 9200

EXECUTED as a Deed in Napier this 6th Day of November 2010

SIGNED for and on behalf of the Ngāti
Pāhauwera Development Trust

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)

Trustee Signature

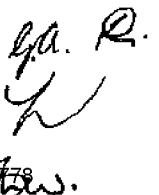
E.A. Lambert
Witness Signature

Toro Waaka
Trustee Name

Elizabeth Anne Lambert
Witness Name

Group Manager - External Relations
Witness Occupation

Napier
Witness Address



SIGNED for and on behalf of the Ngāti
Pāhauwera Development Trust

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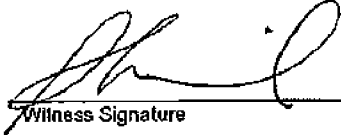
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Trustee Signature

Kurki Green

Trustee Name



Witness Signature

ROIMATA SMAIL

Witness Name

SOLICITOR

Witness Occupation

AUCKLAND

Witness Address

SIGNED for and on behalf of the Ngāti
Pāhauwera Development Trust

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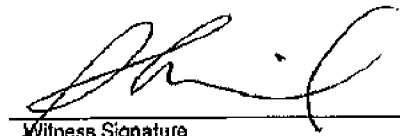
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Trustee Signature

Gerald Aranui

Trustee Name



Witness Signature

ROIMATA SMAIL

Witness Name

SOLICITOR

Witness Occupation

AUCKLAND

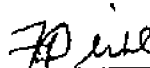
Witness Address

SIGNED for and on behalf of the
Hawke's Bay Regional Council

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)

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Signature

Fenton David Wilson

Name



Witness Signature

Elizabeth Anne Lambert

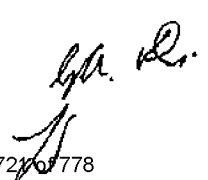
Witness Name

Group Manager - External Relations

Witness Occupation

Napier

Witness Address



SCHEDULE 1

PROCESS FOR NEGOTIATION AND AGREEMENT

1. Negotiation and agreement on the matters set out at clause 3 of the agreement shall be through the following process:
 - 1.1 Hawke's Bay Regional Council shall write to the Ngāti Pāhauwera Development Trust with its proposals in respect of the matters set out at clause 3 for the following year, commencing 1 July by 28 February.
 - 1.2 Ngāti Pāhauwera shall respond in writing by 31 March.
 - 1.3 If necessary the parties shall meet during April to negotiate and agree by 30 April, failing which the dispute resolution procedure at clause 13 of the main part of this agreement shall apply.
 - 1.4 Such agreement shall be recorded in writing signed on behalf of the Ngāti Pāhauwera Development Trust and Hawke's Bay Regional Council.

Lydia R.
W

SCHEDULE 2

NGĀTI PĀHAUWERA DEVELOPMENT TRUST MONITORING POSITION

2. A Ngāti Pāhauwera monitor will be appointed by a joint appointment body consisting of two Ngāti Pāhauwera Development Trust representatives and one representative from HBRC. The appointment will be reviewed annually by the joint appointment body.
3. The monitor will negotiate and may agree on behalf of the Ngāti Pāhauwera Development Trust the matters set out at clause 6 of the main body of this agreement, subject to the provision for dispute resolution provision set out at clause 14 of the main body of this agreement.
4. Hawke's Bay Regional Council will provide the Ngāti Pāhauwera monitor with hard copies of all allocation data, consent volumes, extraction records and related correspondence to contractors.
5. Hawke's Bay Regional Council will fund the Ngāti Pāhauwera monitor position in accordance with the rates set out in this agreement.
6. The role will be funded on an annually reviewed basis to a level agreed between Ngāti Pāhauwera and the Hawke's Bay Regional Council.

Duties

7. The monitor will:
 - 7.1 work in liaison with the Hawke's Bay Regional Council's Engineering Officer – Rivers, who will be the point of contact for the Regional Council
 - 7.2 undertake a pre-season visit to all extraction sites on the river with the Engineering Officer – Rivers
 - 7.3 assess and advise on culturally sensitive issues with respect to extraction sites, including waahi tapu and the management of hangi stones

g.h. Ri.
[Signature]

- 7.4 undertake a pre-extraction site visit with each contractor
- 7.5 undertake random compliance visits during the extraction period
- 7.6 undertake a final site visit to ensure the site is appropriately reinstated to the satisfaction of Council and Ngāti Pāhauwera
- 7.7 receive and respond to enquiries and complaints as is appropriate
- 7.8 provide a 3-monthly written report to HBRC and the Ngāti Pāhauwera Development Trust that:
 - 7.8.1 details particulars of site visits
 - 7.8.2 outlines meetings held with contractors and outcome of discussions
 - 7.8.3 outlines issues arising out of allocation process
 - 7.8.4 outline issues arising out of extraction process
 - 7.8.5 details enquiries and/or complaints from locals, and the outcomes of these.
- 7.9 increase awareness surrounding gravel extraction issues with the wider Ngāti Pāhauwera community.
8. The monitor will be a contractor to, not an employee of, the Hawke's Bay Regional Council.
9. The Monitor will respond to Council on matters relating to the processing of resource consent applications in a timely manner, and in any event respond no later than ten working days from receipt of information on the resource consent application, so that Council is able to meet its statutory resource consent processing deadlines under the Resource Management Act.

ga. R.
Tom W

10. In the event that any action or inaction by the Monitor is the cause of non-achievement of statutory timelines the discounting of the relevant consent processing fees required under the Resource Management Act, will be met by the monitor.

Other Matters

11. Hawke's Bay Regional Council will provide the necessary training and support to ensure that the monitor is equipped to carry out the tasks set out in this agreement
12. Initially, the monitor will be required to work for an average of eight hours per week for a period of 50 weeks per year, at \$40 per hour, subject to review as agreed by the Ngāti Pāhauwera Development Trust and the Hawke's Bay Regional Council. Given that gravel extraction is demand driven the requirements of this role will reflect the irregular nature of the activity. There is an expectation that some time will need to be spent at the offices of the Hawke's Bay Regional council and this is allowed for in the time allocation. Payment to be made on receipt of monthly invoice
13. A vehicle will be provided by the monitor, who will be able to recover reasonable expenses including mileage. Mileage will be reimbursed at a rate of 75 cents per kilometre, subject to review as agreed by the Ngati Pahauwera Development Trust and the Hawkes Bay Regional Council. The monitor is to maintain a logbook recording dates, trip details and kilometres travelled.
14. The monitor's contract can be terminated by the Ngāti Pāhauwera Development Trust or the Hawke's Bay Regional Council on two (2) weeks' notice if the monitor fails to meet the requirements of the role, including reporting requirements.

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SCHEDULE 3

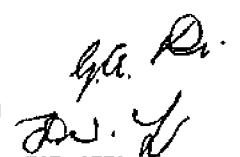
STANDARD CONSENT CONDITIONS FOR MOHAKA RIVER BELOW TE HOE

1. Unless otherwise indicated by the Council the period to which the consent relates is from 1 July to 30 June the following year.
2. An officer of the Council shall have the right, during business hours, of access to the site of extraction and to the books and documents relating to the extraction of gravel authorised by this consent and kept by the holder in order to check the accuracy of the returns made to the Council.
3. The consent holder shall notify the Council forty-eight (48) hours prior to any new extraction operation commencing within the area specified by the resource consent.
4. The consent does not of itself confer any right of access over private and/or public property. Arrangements for access must be made between the consent holder and the property owner (including land under the control of the HBRC) before a consent will be issued and the consent holder must show written confirmation of the arrangement upon request.
5. Where the consent holder requires access across river berm areas held by Council under the Reserves Act (or any other relevant Act) and leased to a third party, the consent holder shall negotiate access across that land with the lessee.
6. The consent holder shall ensure that any person exercising the consent shall produce the consent to the Council when requested to do so by a duly authorized officer of the Council.
7. Any authorisation to extract gravel conferred by a consent does not guarantee that the quantity of gravel required will be available. The consent may be suspended if the overall allocation is reviewed during the consent period.
8. Consent holders shall maintain an accurate and accessible daily record of the volume of gravel taken, the site of extraction and the date it was taken. All quantities are to be based on loose measure and rounded to the nearest cubic metre. Such

h.a. *R.*
Paul C.

records are to be provided monthly to the HB Regional Council on the Statutory Declaration forms provided.

9. The consent holder shall immediately repair any damage that they have caused to any banks, access roads, fences, gates, protection or other works relating to the control of the river. The cost of such repair shall be met by the consent holder.
10. The consent holder shall ensure that the site is restored on completion of the gravel extraction operation or at the end of the consent period, whichever is sooner, as follows:
 - a) Gravel heaped up during the process of removal shall be spread out by the consent holder on completion of the gravel extraction operation or at the end of the consent period, whichever is sooner.
 - b) Consent holder shall remove all, plant, machinery, equipment, signs and other structures associated with the operation from the riverbed immediately on completion of operations or at the end of the consent period, whichever is sooner.
 - c) No reject, surplus or unused gravel from a gravel processing plant is to be deposited into or onto the riverbed.
11. The site will be inspected at the end of the consent period to ensure compliance with clause 10 before any consent will be issued for the next period.
12. A consent does not confer any exclusive right of occupation over the area allotted to the holder.
13. A consent holder shall erect a warning sign (generally in the form shown in Appendix A) adjacent to the site of extraction where as a result of the extraction the stretch of river has or is likely to become dangerous to the public. These signs will be required wherever holes are made in the riverbed, which could become a danger to fishers and others who may use the riverbed. The signs shall be removed on completion of the operation or when the area is no longer a danger to the public.
14. No refuelling or fuel storage shall occur on the riverbed.

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15. Should any archaeological site be discovered within the area affected by the operation the consent holder shall as soon as possible notify the Historic Places Trust and the Council.
16. No machinery shall be driven across the active river channel without prior authorisation from the Council in consultation with Ngāti Pāhauwera, the Department of Conservation and the Hawke's Bay Fish and Game Council or the Eastern Region Fish and Game Council to the north or and including the Waiau River and its tributaries. When driving a vehicle across the river flow, consent holders shall take all practicable steps to prevent an increase in the level of turbidity of the river. The consent holder shall give particular attention to avoiding turbidity within waterways during the fish-spawning period of May-October.
17.
 - a) When extracting gravel from outside the river flow and above the water level, extraction will commence from the water's edge on an even face or as otherwise directed by an officer of the Council. Gravel may be removed only from specified areas, which must be leveled off before leaving the site.
 - b) When extracting gravel from outside the river flow and below standing water level, consent holders shall maintain a one metre wide barrier between the river and excavation site so that any turbidity increase in the river is kept to a minimum. The barrier is to be removed at the end of the operation.
 - c) When extracting gravel from the river flow, consent holders shall take all practicable steps to prevent increase in the level of turbidity of the river. Should the gravel extraction operation result in increased turbidity the consent holder shall take all practicable steps, including any actions directed by an officer of the Council, to remedy the turbidity. The consent holder shall give particular attention to avoiding turbidity within waterways during the fish-spawning period of May-October.
18. Access tracks are to be watered regularly to keep dust down.
19. It is an offence to take hangi stones except as provided by section [56] of the Ngāti Pāhauwera Treaty Settlement Claims Act [2010].

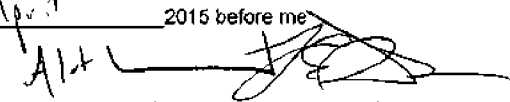
ADVICE NOTES

1. That pursuant to Section 36 of the Resource Management Act 1991, the applicant is responsible for paying costs relating to receiving and processing of this resource consent. This amount is shown on the application form.
2. Notwithstanding any conditions outlined above, additional specific conditions may be imposed on gravel extraction activities in the region on any occasion, to take account of the site conditions at the time, to protect property, to protect human health, to ensure river or flood control is not prejudiced, or to avoid, remedy or mitigate any adverse effects on the environment.
3. This consent does not constitute authority to erect, reconstruct, place, alter, extend, remove or demolish any structure or to divert water or construct a causeway or discharge gravel wash into a river. These activities are controlled and you must seek a resource consent to carry them out.
4. The consent holder may apply to change the terms and conditions of the consent (except for the duration) if circumstances change (Section 127 of the Resource Management Act 1991).
5. The consent is transferable to any other person unless the consent states otherwise. The transfer has no effect until written notice of the transfer is given to the Council. The same conditions will apply to the new consent holder.

“B”

This is the exhibit marked “B” referred to in the affidavit of Toro Edward Waaka on behalf of the Trustees of the Ngāti Pāhauwera Development and Tiaki Trusts affirmed at

Napier this 13th day of April 2015 before me

Signature: 

A Solicitor of the High Court of New Zealand / Justice of the Peace

Ailie Sutherland
Solicitor
Napier

Hāngi stones provisions from the Ngāti Pāhauwera Treaty Claims Settlement Act 2013

Subpart 4—Extraction of hāngi stones

57 Interpretation

In this subpart,—

coastal marine area has the meaning given by section 2(1) of the Resource Management Act 1991

hāngi stones means naturally occurring rounded rocks that—

- (a) are typically basalt, rhyolite, or andesite volcanic cobbles; and
- (b) are typically lacking in fracture planes; and
- (c) have dense crystalline texture giving them the capacity to retain heat; and
- (d) are commonly found in deposits of volcanic debris

relevant hāngi stones means hāngi stones that are situated in the bed of the Mohaka River or Te Hoe River to the extent that the bed of the river is situated in the core area of interest but not in the coastal marine area.

58 Restriction on extraction of relevant hāngi stones

- (1) A person may only extract relevant hāngi stones if—
 - (a) the relevant hāngi stones are loose; and
 - (b) the person has obtained the written consent of the trustees of the Ngāti Pāhauwera Development Trust to extract the relevant hāngi stones; and
 - (c) the person extracts the relevant hāngi stones in accordance with any terms or conditions set out in the consent referred to in paragraph (b).
- (2) If a person extracts relevant hāngi stones in carrying out another activity, the person must return the stones—
 - (a) to their original position; or
 - (b) as close as is reasonably practicable to their original position; or
 - (c) if the trustees so direct, to another place in the vicinity of their original position.

59 Trustees original

- (1) The trustees of the Ngāti Pāhauwera Development Trust are not obliged to give a consent to extract relevant hāngi stones under section 58(1)(b), but may give it on any terms and conditions they see fit.
- (2) Despite any enactment, any person who has obtained the consent of the trustees to extract relevant hāngi stones may extract the stones without obtaining any consent from a local authority.

60 Appointment of tangata tiaki

- (1) Tangata tiaki may be appointed by the trustees of the Ngāti Pāhauwera Development Trust to promote compliance with the restriction imposed by section 58(1).

- (2) An appointment under subsection (1) may be made whether or not any regulations have been made under section 61, but if any regulations have been made, the appointment must be made in accordance with those regulations.
- (3) The functions of tangata tiaki are—
- (a) to assist in implementing the restriction imposed by section 58(1); and
 - (b) to advise members of the public of the restriction; and
 - (c) to record any failure by a person to comply with the restriction if the tangata tiaki has reasonable grounds to believe that the failure is intentional; and
 - (d) to request the name, contact details, and date of birth of any person referred to in paragraph (c); and
 - (e) to report the matters specified in paragraphs (c) and (d) to the New Zealand Police.
- (4) To avoid doubt, tangata tiaki are responsible to the trustees of the Ngāti Pāhauwera Development Trust for the discharge of their functions under subsection (3).

61 Regulations relating to tangata tiaki

The Governor-General may, on the recommendation of the Minister of Justice after consultation with the trustees of the Ngāti Pāhauwera Development Trust, by Order in Council, make regulations for all or any of the following purposes:

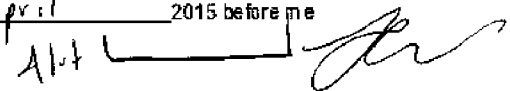
- (a) providing for the appointment of tangata tiaki under section 60, the qualification for appointment, the terms of the appointment, and the termination of an appointment;
- (b) prescribing additional functions of tangata tiaki appointed under section 60, being functions that are reasonably incidental to the functions specified in that section;
- (c) prescribing any duties or powers to be exercised by tangata tiaki for the purpose of performing their functions;
- (d) prescribing the means (including, without limitation, identity cards or badges, or both) by which tangata tiaki are to be identified.

"C"

TAUA

'Musket wars', 'land wars' or tikanga?
Warfare in Māori society in the
early nineteenth century

Angela Ballara

This is the exhibit marked "C" referred to in the affidavit of Toro Edward
Waaka on behalf of the Trustees of the Ngāti Pāhauvera Development
and Tiaki Trusts affirmed at
Napier this 13th day of
April 2015 before me
Signature: 
A Solicitor of the High Court of New Zealand / Justice of the Peace

Ailie Sutherland
Solicitor
Napier



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Long-distance, long-planned taua required more preparation than local wars, of course, and rumours of their approach almost always preceded them, or messengers were sent with declarations of intent or warnings. Some of the preparations have already been discussed: the recruitment of allies, and the planting of extra crops to feast those allies and to take as stores. As noted above, those left behind, who tended to be the old, or the mothers of young children, were expected to fend for themselves. The extra crops were also to ensure the production and storage of the following year's seed.

Some of the women and children went on long-distance taua; the women occasionally, although probably not typically, became involved in the fighting. Their usual role was that of camp followers, foraging for wild vegetables, fishing, gathering shellfish, cooking and performing domestic chores, and they helped to paddle the canoes. When Ruatara of Rangihoua in the Bay of Islands set off with his people in three canoes to Doubtless Bay to punish the people of North Cape, who were reported to have killed 30 people, kin to Ruatara but living in that area, paddling his own canoe were his wife, her sister, and a group of young women, besides, presumably, some fighting men (although Nicholas, the youthful companion of Samuel Marsden, seems to have had eyes only for the 'most beautiful young women in the island').⁴²

We are indebted to Henry Williams for a blow-by-blow account in his journals of a long-distance campaign against Tauranga, the organisation of which began in 1831 and took place mostly in 1832; he accompanied the taua in a mission vessel. The purpose of this campaign was to obtain utu for the two sons of Hengi, Mangō and Kākaha, and the old tohunga Te Haramiti – all people of Takou, north of Rangihoua. These three had been killed on Mōtiti Island, along with many lower-ranked companions, by people related to Ngāi Te Rangī in the second of two successive taua undertaken to obtain utu for Hengi; he had been killed in the fighting at Kororāreka in March 1830. As explained above, the sons of Hengi felt that they could not get proper utu from those kin who had caused the death of their father, so set out to the south to get it from the first people they encountered.

Two notable features of the 1832 campaign against Tauranga were the series of long debates held between the chiefs of different communities and hapū at Kororāreka and elsewhere before each decided for himself whether to go or stay, and the pressure brought on those chiefs who did not want to go to conform to the wishes of the rest. Once each chief had made his decision he led his group

separately. First Ururua, Hongi's junior cousin, left the Bay of Islands on 12 December 1831 with his Whangaroa people, originally Hongi's particular hapū, including Ngāi Tawake, who had migrated there from Waimate in 1827. Meanwhile, Tāreha and Titore, two other great chiefs of Ngāi Tawake and Ngāti Rehia respectively, were having a bitter quarrel at Kororāreka. On 17 December Kawiti of Ngāti Uline asked the missionaries if he could travel on one of the mission vessels, the *Active*, as the other chiefs had threatened to strip him if he did not go. On 26 December Williams encountered the section of the rāua from Waimate held up at Kerikeri through contrary winds. On 30 December some of the leading men brought stores to be carried in the *Active*. The next day Titore deposited his store of potatoes, and on the same day several canoes left Kororāreka. One of them overturned, which was regarded as a bad omen. On 2 January 1832 more canoes left, firing guns as they went; Williams thought this group included Wharepoaka, leading a contingent from Rangihoua. The mission vessel, accompanied by Tohitapu and Toe in two canoes, left on 3 January. They got no further than Pāroa Bay.

The next day was passed at Pāroa, under temporary sheds constructed to keep off the rain, and the flotilla set off again on 5 January. After less than an hour's paddling they stopped for the day. Next morning Tohitapu predicted a gale, so it seemed that no travelling would be done that day, but after a while the flotilla started off again and most cleared Cape Brett. Some, including Rewa's people, got to Whanganuru that day. They had travelled twenty miles in three days. Rewa told the missionaries that it was contrary to custom to be in a hurry. Williams asked him why they did not keep closer together. Rewa replied that it was their usual way for each party to go where they liked, that everyone was his own chief. On 7 January they all got as far as Tutukaka Harbour. All the parties put in here because Titore's canoe had taken in a little water. The different contingents camped in different bays and nīkau houses were built. On 9 January a breeze arose from the south-east and some of the canoes were unable to pull around 'Te Wata' or Bream Head into Whāngārei. Tāreha, Te Wharehahi and Moka and their contingents had arrived but the others had not arrived by the 11 January. Titore, Rewa and others arrived at Whāngārei on 13 January, and proposed travelling the next day, which was a Saturday, and resting on the Sabbath in accordance with the wishes of the missionaries. Te Pōpoto hapū from Hokianga were camping on the other side of the harbour and were invited to come to a general muster, which consisted of each group forming up for a haka and speeches by the chiefs. There were 400 fighting men at this muster, and Williams said that 400 had already passed on further south. On 14 January a serious quarrel broke out between the various ope, initiated by Moka. There was no further travelling for two days.

By 16 January Williams had reached Mangowhai Harbour, which he said had

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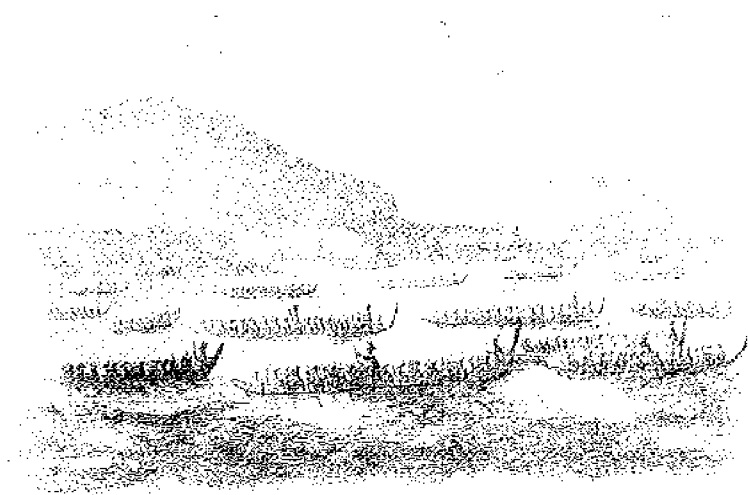
formerly been occupied by Ngāti Maru, although it was deserted at this time. He was joined later the same day by 40 or 50 of the canoes. On 17 January Williams got to 'Maha', probably Ōmaha, leaving most of the others behind. They were afraid that Tāreha would turn back. He was in a tapu canoe which no one else could enter; it had carried the body of Hengi in 1830. Tāreha had only his three wives to help him paddle the large canoe, which was full of tapu objects on their way to be offered to the gods at the place where Hengi's sons were killed trying to obtain utu for him. But Tāreha arrived on 19 January and Williams arranged to take him on board the *Karere* and to tow the tapu canoe to Great Barrier Island. Vast quantities of fish were caught that day, and the next day was spent digging fern root and making more paddles. On 21 January the hapū Te Pōpoto, under the leadership of Taonui, decided to go off on their own to attack some of the allies of Ngāi Te Rangi in the Thames area. Some of the other chiefs protested, to no avail. The chiefs Moka and Tohitapu also took their people away in two canoes, they said to dig fern root, although Williams suspected another side campaign.

On 24 January Williams remarked that they had been three weeks on a voyage not more than a day's sail from Paihia. No further movement took place, owing to rain and strong winds, and on 27 January some more of the canoe crews left to dig fern root. The taua at this point felt certain that disaster was about to befall them. Someone had inadvertently burnt some tapu material. Someone else had a dream in which a son of Tāreha appeared to him as a taniwha, another bad omen. Williams remarked that their fear of taniwha was very great; to avert evil from them and other spiritual forces, they could not carry cooked food on their war canoes, eat, spit or smoke their pipes. The weather was bad, and it was felt that the gale resulted from the breach of tapu.

As the taua continued on its slow progress, Williams was able to make a return trip to the Bay of Islands, thus missing some of the action. By 1 March 1832 he had returned, by which time the taua had reached an island off Tairua where two days later another muster was held. Williams estimated that there were 600 fighting men altogether, including those of the chiefs Rewarewa (probably Rewharewha, the nephew of Ururoa)⁴³ and Wharepoaka, who were not present, besides women and children. Williams heard that a large party under Te Wharerahi had split off and gone overland to surprise Ngāti Whātua. The vessel belonging to the chief Pi (of Te Mahurehure) had also made a side trip to Tūhua (Mayor Island) in an attempt to surprise the people there, but they had been forewarned by a messenger from Hauraki. Although armed with a 'great gun' he was able to accomplish nothing.

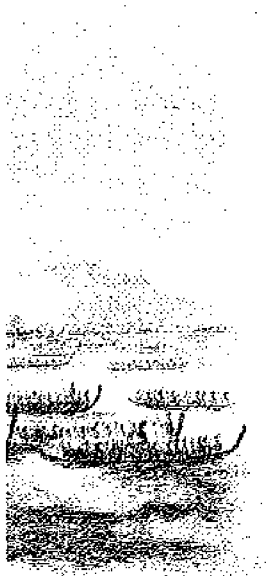
On 4 March Williams witnessed a divinatory ceremony performed by a tohunga, in which sticks of different lengths were set up to represent the crews of the different canoes. The tohunga was able to tell by the way they fell who

would die in the coming battle. The tohunga was a frail old man and became confused during his recitation of karakia, and the ceremony had to be begun again. Williams was startled by the degree of 'implicit faith' the taua put into the work of this tohunga. By 5 March, two full months after its departure, the taua was within seven miles of Katikati, and the next day Fārchā's people caught an old woman of Ngāti Maru on Māukana Island, who gave them the news, which Williams did not believe, that Te Whārerahi had won some significant victory against Waikato. She also told them that the chief Rewarewa with his group had fought four or five engagements against 'Nateawa' (Nateawa was Williams's version of Ngāti Awa, but probably he meant Ngāi Te Rangi, the people of Taurangi, who were in fact descended from Awanuiārangi and so were, broadly speaking, Ngāti Awa. The name Ngāi Te Rangi was unknown to him). No one had been killed or wounded, as the fighting groups had observed 'open order', by which Williams meant that musket volleys had been exchanged from a distance (Ngāi Te Rangi were well supplied with muskets and guns by this stage). That night a messenger arrived from Rewarewa, who gave an account of Te Whārerahi's battle against Ngāti Whātua and his own against the people of Taurangi.



Māori camp, engraving after Louis Auguste Le Saisson

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Poste de Samson

On 7 March 1832 the fleet of about 80 canoes and boats set off to invest the Ngāi Te Rangī pā, Ōtūmoetai, and to forage in the plantations outside the walls. Many of the canoes had 'great guns' (probably ships' cannon). Despite volleys of firing across the river, no one was hurt. On 9 March two men, perhaps slaves, deserted to the enemy, taking their arms with them. Early the next day the fleet went upriver, passing the pā and landing at its rear. Williams remarked that had anyone in the pā thought to fire on the fleet they might have caused great confusion, but, perhaps unaware of his own irony, he added: 'they were savages and consequently their movements less destructive'. At daybreak there was a general movement towards the pā; three hours of firing followed, resulting in one man dead and one struck on his cattuouche box. Williams was horrified by the carelessness of everyone, but particularly of the women and children. Desultory firing occurred during the next few days, and the next serious attack on the pā was on 12 March. As the firing continued, children ran about digging up the shot as it fell. Williams learned from a Pākehā from the pā who was attempting to arrange a peace that on the other side only four had been wounded. The next day 'Kiaroa' (Kiharoa) and his people of Maungatapu arrived as allies for those in the pā, and later there was serious fighting. Ōtūmoetai had four killed and three mortally wounded; Ngā Puhi had one killed and four wounded. Apart from the missionaries, Pākehā intervened at several points in the campaign. The cutter *Fairy* was there, selling 'great guns', small arms and ammunition on credit, which bolstered the morale of the attacking taua. Seeing that they could do no good, the missionaries again returned to the Bay of Islands.

Williams returned to visit the taua on 1 April 1832, learning that various parties had shifted their quarters to the opposite side of the river from Maungatapu, and that several skirmishes had taken place in his absence, with a few killed and wounded on each side. Various Te Arawa hapū had joined the affray, some on each side of the war. The taua had fired into the Maungatapu pā with their 'great guns' for nearly a full day on one occasion, but the bombardment had been without effect. Some Waikato people had come as allies for the people of Ōtūmoetai. All were complaining about lack of food and were getting tired of the war. The Maungatapu defences were then in good order (unlike those of Ōtūmoetai), and the defenders were in good spirits. On 3 April there was some serious fighting in canoes and on the beach, and Ngā Puhi said that they had chased 'Nateawa' in all directions, which caused jubilation in the Ngā Puhi camp and a fresh determination to continue the war. The missionaries left again on 6 April. Canoes began returning to the Bay of Islands from this taua towards the end of July, but they returned as they had left, in separate contingents under different chiefs at different times. Without exception they came in quietly, with no displays of heads or slaves taken. Titore remained away

the longest, returning by 27 November. Williams visited him the next day; he had with him fourteen heads of 'Nateawa' and three of his own people. On 30 November Williams heard that there had been two major battles, both commenced by 'Nateawa', and that up to 200 had been killed altogether.

This taua to Tauranga was typical of earlier ones in many respects, but significantly different in others. The style of fighting was by long-range musket volleys and 'great gun' firing, rather than hand-to-hand fighting or one-sided barrages of firing (which occurred when only one side had significant numbers of firearms). Another difference was the observance, at least in part, of the missionaries' Rā Tapu (Sunday). Even though none of those mentioned was Christian, they were accustomed to observing the requirements of different deities and unwilling to offend that of the missionaries. Other differences included the attempts of various Europeans to intervene and make peace, and the presence of the Fairy, selling arms and ammunition. The use of Pakehā vessels to carry provisions (or tow tapu canoes) was also new. All these interventions may have helped to prolong the taua. But these differences were all superficial or technological.

The similarities to earlier taua included the leisurely pace of events, the foraging en route, the separate travelling of the different contingents under their different chiefs, the independence of each chief and the lack of consultation before independent moves were made. There was nothing resembling tribal authority, a central war command or single commander; there was not even a common plan. It was regarded as Titore's taua, at least by the missionaries, because he had initiated it and because he stayed out the longest and brought back the most heads, but in reality it was as much Ururoa's or Rewharewha's or Te Wharerahi's or Tohitapu's taua as Titore's. Other similarities included the reasons they went - to obtain utu for Hengi's sons, Te Haramiti and all those Ngāti Rehia and Ngā Puhi who died with them on the two previous taua. Typically, also, no peace could be made despite the efforts of the missionaries and other Europeans, as the losses of the two enemy parties were about equal, and no chiefs of equivalent rank had fallen as utu for the sons of Hengi or Te Haramiti. The same observance of religious ceremonies and rites as in the previous decade, the belief in omens and the portents of dreams, all of which affected their actions, together with their faith in these, demonstrated that nothing essential had yet changed in Māori warfare.



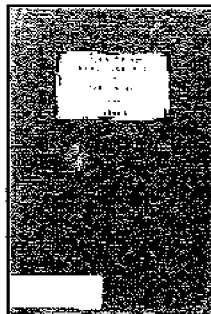
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Ailie Sutherland
Solicitor
Napier

PIONEERING REMINISCENCES OF OLD WAIROA

OLD TRANSPORT GONE

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OLD TRANSPORT GONE.

In days gone by in Old Wairoa, transport was of a varied character. "Shank's pony" was most in demand, and the Natives

blazed the trail for the white man, who for years trod the various Native tracks: then came "the cow," *alias* the bullock, and with him the "language" became prolific and lurid, and many a "bullocky" strove hard, at times, when in the hearing of an Anglican or a Catholic Bishop, to moderate his flow of expletives. Then came the horse, as a means of transport, and for him the tracks had to be widened to accommodate him. Roads there were none, and settlement was practically non-existent. Poverty Bay was well settled, and so was Mohaka, when the titles to the major Maori lands were extinguished by confiscation and sales. To go to Gisborne, then called Turanganui, the "road" lay over the low saddle at Te Uhi where the railway-cutting is situated, then round by the swamp and the beach to Nuhaka, and on by Opoutama. At this time there was a great trade being done between Wairoa and Napier, as well as Turanganui and even further afield; craft of all sizes ranging from five tons up were used, and some were even built at Wairoa, besides which many large Wairoa war-canoes voyaged to and fro. As the trading fever mounted so grew the craft that were drawn to Wairoa as by a magnet. There were two anchorages, one at Lockwood's Point, west of the town bridge, and the other at Spooner's Point, and both were the business places of two sly-groggers. The Point, before the sale of the town site, was the most popular because not only was it in sight of the "bar," a *sine qua non* with the skippers, but there was in the vicinity the remnants of *Pa* Manukanui, and Kaimango on the south-east, but there were Kurupakiaka, and four *pas* on Ohuia and Ngamotu and to all of the dwellers within, the "*taonga*," or "trade," in the little vessels was a source of unabated interest. But, alas! The true historian cannot but record the opinion that the arrival of the boats did not in any way improve the morals, the physique or the health of the then unsophisticated Maori people—rather the reverse. To start with, it was in 1829 that Captain H. J. Sturley, later a Wairoa resident, first sighted New Zealand. The same year Barnet Burns, a trader, visited Mahia in a brig called the *Darling*. In 1839, nearly one hundred years ago, a vessel called the *Pane* (Fanny) came from Sydney to buy flax; and on Boxing Day, 1839, Barney Rhodes, in the *Eleanor*, from Sydney, was off the Wairoa bar; whilst in 1844 the *Hoturangi* was plundered at Waikokopu—not by the Maoris, but by the lawless whalers from the Bay of

Islands. To give the full history of these boats or to tell of the men who "go down to the sea in ships" would overload this booklet. There was the *Hero*, commanded by Jock Campbell, a flat-bottomed bluff-nosed craft, which was as often on the bar as off it; there was the *Scamperdown*, built at the mouth of the Kahaurua stream near Frasertown, the builder being J. Norcross. She was owned and sailed by William and Thad Lewis, regular old salts, and was no doubt the first vessel of European construction built in Wairoa. Another was the *Taraipine*, built at the mouth of the Huramua by the late R. T. McRoberts, and finished about 1865. On 8th February, 1866, she made her first trip to Napier, commanded by the late Joe Carroll, father of Sir James of late history. Her last and fatal trip was made on 7th March, 1867, for Turanganui. She had on board Taraipine, the chieftainess, daughter of Rangimataeo; an old gentleman named Campbell and his wife, from Kinikini; and eighteen or twenty Natives. She was in command of W. Lewis, father of Mr. Archie Lewis of Te Hatepe. In heavy weather she anchored off Paritu and sank during the night, all being drowned, and not one body was ever found. Many a war-canoe journeying between Wairoa and Turanganui and Waimarama came to grief, and in one trip to or from Turanganui the Wairoa chief, Tiakitai of Kihitu, lost his life. Among the larger vessels, when the war-clouds hung over Wairoa were the *Sturt*, 130 tons, which frequently entered the river. Instead of a siren she had a small gun to signal her arrival, and the first time it was fired all the natives fled to Frasertown. It was this incident that led a later historian to report that the Pakeha had "shelled" Te Uhi *pa*. It is just a question if there was such a thing in 1863, at least in Wairoa. The *St. Kilda* and the *Eclipse*, New Zealand's first war-vessels, also visited us but did not enter the river. There was quite a host in the mosquito fleet, of which only these can be named: the *Dolphin*, the *Shepherdess*, the *Daring*, *Uncle John* (1857), *Wairau* (1858), the *Zillah*. This boat sailed from the Scamperdown once with 1,500 bushels of wheat for Auckland, which went finally to Sydney and sold for 12/- per bushel! Once she had to load at Whakaki, at Wai-horo-i-tuna, because the Wairoa bar was bad, and her entire inward cargo was four bags of oats! Among the "liners" of five to ten tons were the *Gem*, the *Mario*, and the *Clara*. The *Clapmatch* was twenty tons and the *Swan* forty tons. The first cargo carried by the

former was five bags of sugar and 500lbs. of salt! Her fate was to be carried out over the bar in a heavy flood. There were three men on board, two Natives, who both got ashore after a grim struggle, but a coloured man, "Black Harry," was drowned. The *Aquila* (Captain Sturley) traded in 1859; the *White Swan*, the *Effort*, *Southern Cross* and the *Esk*; also the *Dart*. The *Salopian* was the first vessel to clear at "the spit" in 1859. In 1860 there was the *Tere*, commanded by Paora Apatu, who supplied the Napier dinner tables with apples, peaches, pears and water melons. The *Gypsy* was built at Mohaka by a Dutchman called Henerici, and traded in the name of the late John Sim. In 1861 the cutter *Ada* was lost at Wairoa, and in 1862 the *Effort* capsized in Huramua Creek. In 1862 the *Lark* and the *Eliza* were trading. The *Maid*, fifteen tons, traded from Arapaoanui to Napier, and in 1863 the *Tere* was lost on the Wairoa bar, but all hands, including Paora Apatu, were saved. The *Ladybird* was trading in 1863, and about that year there were jubinations in the port of Wairoa over a "fast trip" of eight hours from Wairoa to Napier. In 1863 the *Janet* arrived from Turanganui with Natives to *tangi* over the great chief Rangimataeo. The following year the paddle-steamer, *Star of the South*, was carrying sheep to Mahia, and the *Ballarat*, engaged by the New Zealand Government, went ashore at Te Hoe in the Waikokopu Bight. The *Mary Thompson* was sent to help in getting her off and she was partly launched with the aid of forty Natives, but slipped off her skids, and sank in deep water, but was finally raised. The *Vivid* was trading in 1864, and the Mahia Maoris bought the *Maid* the same year, and she was commanded by a Maori named Raumanga, *alias* Snipey. Then there were the *Iris* and the *Sailor's Bride*, both running from Mohaka to Napier, and the *Greenwich* was trading to Wairoa, and commanded by Captain Garnham. All was not plain sailing, for the *Effort* was lost at Awanui and the *Eliza* followed suit at the Wairoa bar. In 1866 the *Huntress* (200 tons) got up river as far as Hikawai, and the same year was anchored off Paul Street for six months owing to bad bar. The *Pai Marire*, Te Kooti's slogan, was launched about that time, but the *Jane*, the *Bittern*, and the *Rose Ann* traded between Wairoa and Auckland. The *Queen* (Tom Schon) and the *Rambler* (seven tons) were still afloat, but the *Vivid* and the *Rambler* were lost, the one being abandoned at Whangawehi, and the other lost at sea while

sailing from Napier to Wairoa. The small cutter *Donald McLean* took up the trade, and on 1st August the *Sailor's Bride* was lost at Wairoa while bringing a load of potatoes for the Wairoa Natives, who were very poor at the time. Two Maoris were drowned, one of them a brother of Kopu. This year flour went up to £2 per 50-lb. bag! To add to the miseries of Wairoa, the *Ladybird* was lost on the bar (20th August). In 1867 the *Tay*, fourteen tons, was trading, but the *Gypsy* got out of it by capsizing on the bar. The *Grayling* was bought by S. F. Prentice, and the *Lady Wynyard* was running to Mahia. The *Cleopatra*, which also sailed fifteen miles up the Wairoa river to get a cargo for Wellington, was lost at Palliser Bay. The *Meteor* and the paddle-steamer *Waiparo* were at Wairoa in August, 1868, and the same year another Wairoa trader, the *Annie*, was lost at the Kidnappers. The *Mary Ann Hudson*, built for the late John Sim, entered the trade, commanded by W. E. Baxter, but the *Grayling* disappeared, and was supposed to have foundered off the Wairoa bar. The *Esther*, *The Twins*, *the Petrel*, *the Sea Serpent*, *the Colonist*, *the Why-not*, and the S.S. *Napier* bring the list up to 1871—and here must I stop, for steam was coming in, and Wairoa lost its small craft transport. Now we rush north and south by fast motor cars, or if at Gisborne or Napier, fly over the young city of Wairoa in the Dragon 'planes at one hundred miles an hour, looking down upon our town from 4,000 feet. Yet we are not more happy than were the pioneers, who had stout arms, and the hearts of lions, while modern men and women have lost the spirit of enterprise and endeavour, and fallen under the spell of pleasure and fashion. Both, like the daughter of the horse-leech, cry out, "Give, give," and when there is no response they become irritated and contrary and finally nervous wrecks. There is a penalty to pay for living too fast.

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Bad weather further delays waka's Wellington arrival

Published: 6:03AM Wednesday June 05, 2013 Source: ONE News

The voyaging waka Te Matau a Maui anchors up in Island Bay near Wellington - Source: Jim Baltaxe

Rough seas are once again threatening to disrupt the arrival of a sailing waka into Wellington Harbour for the city's Matariki Festival. The voyaging waka Te Matau a Maui hit gale force southerly winds, a six metre swell and a setting sun during an unsuccessful attempt to enter the harbour yesterday.

The waka, with a crew of 14, including 3 women, took shelter in Island Bay near the mouth of the harbour overnight.

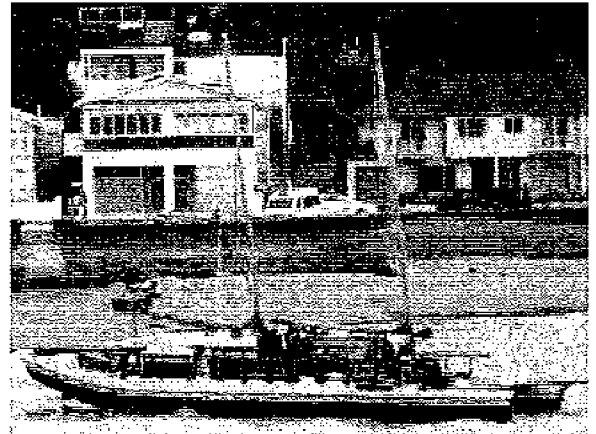
It was hoped another attempt to enter the harbour could be made today but the crew are now set to wait another day in the bay until conditions improve.

Crew member Belinda Averill described the dramatic events as "lots of fun" and said the captain and the crew coped well with the situation.

The waka had sailed from Napier to take part in Wellington City Council's Matariki Festival opening ceremony on Saturday.

ONE News has been told that crew members were aware of the conditions deteriorating before setting sail and planned to reach Wellington ahead of the gale force southerly winds.

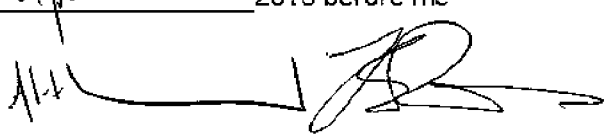
However, the sail down to Cape Palliser and into the Wellington Harbour took longer than expected.



This is the exhibit marked "E" referred to in the affidavit of Toro Edward Waaka on behalf of the Trustees of the Ngāti Pāhauwera Development and Tiaki Trusts affirmed at

Napier this 13th day of

April 2015 before me

Signature: 

A Solicitor of the High Court of New Zealand /Justice of the Peace

Ailie Sutherland
Solicitor
Napier

This is the exhibit marked "F" referred to in the affidavit of Toro Edward Waaka on behalf of the Trustees of the Ngāti Pāhauwera Development and Tiaki Trusts affirmed at Napier

REFERENCE ONLY "F"

this 23rd day of March 2015 before me
Signature: [Signature]

A Solicitor of the High Court of New Zealand / Justice of the Peace

Solicitor
Napier

Wind, rain halt plans to paddle war canoe

By SUE SCOTT
Maori affairs reporter

The South Island Maori war canoe will be ferried across Cook Strait some time during the next two days — wind and rain stopped the crew paddling the craft to Porirua today.

Te Awatea Hou and its complement of 100 spent last night at Ship Cove in Queen Charlotte Sound after paddling from Wai-kawa Bay, near Picton, yesterday afternoon. The decision to abandon the controversial crossing was made this morning and the waka started its return trip to Picton.

It is expected to cross on a ferry today or tomorrow.

The plans to paddle the strait attracted Navy criticism earlier this month. The Navy said such a crossing would be dangerous and

it refused to escort all Maori waka making sea voyages to Waitangi for February 6 celebrations.

Project leader Jim Elkington said from the start of the project he would not endanger the lives of crew by paddling in bad weather. He said the crossing would not take place unless conditions were perfect.

Nine South Island tribes have been involved in the project. The original plans were for a double-hulled craft which would travel by water all the way to Waitangi, but the group building the waka ran out of time to build two hulls.

The waka's carving has been designed to represent South Island geographically rather than any particular tribe. Its carving includes the explorer Kupe, the Southern Alps, and the Maori creation story.

Victims
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By SUE SCOTT
Staff reporter

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Maori Minister

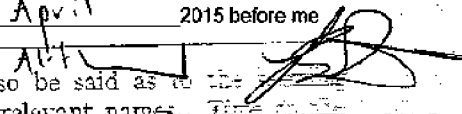
"G"

This is the exhibit marked "G" referred to in the affidavit of Toro Edward Waaka on behalf of the Trustees of the Ngāi Pāhauwera Development and Tiaki Trusts affirmed at

Napier this 13th day of

66

TUTIRA April 2015 before me

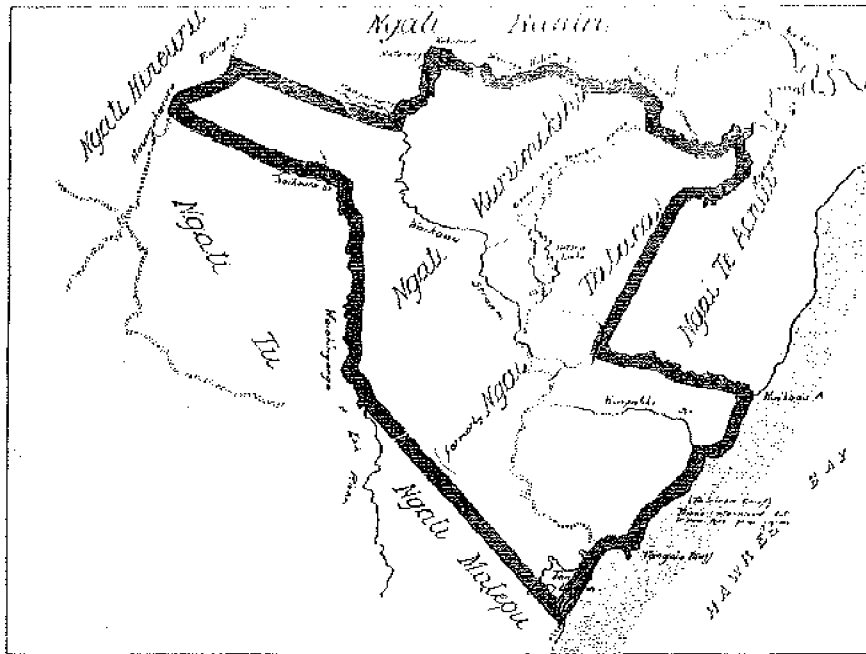
Signature:  Ailie Sutherland
A Solicitor of the High Court of New Zealand / Justice of the Peace

A preliminary word may perhaps now also be said as to the redundancy in coming chapters of seemingly irrelevant cases. Maori was of no account: every incident in a story no detail was to be omitted. Never, therefore, must it be allowed to exclaim—it would not be *tika*, it would not be correct. What do the names of Te Amohia's two cronies, Mohu and Whangawehi—*I give both on grounds*—in her escape after the captivity of Tauranga-koau, matter? What does it avail to know that Tataramoa was the father and Porangi the mother of the damsel Tukanoi—all of them, by the way, descendants of Kōwhiri—in her love affair with the gallant, the gay, the red-headed Te-Whata-Apōhoro? Why, it just matters everything; for after that fashion for ages have these stories been transmitted. It is proper, therefore, that in their exact shape they shall be crystallised in print.

It may be well now also to emphasise the anglicisation of place and personal names during the brief space when heathenism and Christianity still divided the allegiance of the tribes. During that twilight interval it was that Te-wai-o-hinganga, for example, was changed into Barbary—about there is neither B nor Y nor TH in the Maori alphabet—and Pōhoro. Under the same scheme of things Te-Iwi-Whānau, the grandfather of a chief who has done yeoman service in these chapters, became Abraham—Aperahama. Correlative to this change of place and personal names was another in regard to weapons of offence—the *mauka* was supplanting the *taiaha*. The same Te-Iwi-Whānau, for instance, was desperately hurt by eight British spears thrusts fighting the Urewera at Ngama-ru. At a later period, when he went into Aperahama—Abraham—he was no less badly wounded by Christian bullets at Tiekenni, again battling against the Urewera.

Of several of the lamentations, songs, and ballads of the gallant hero whose story I am about to relate, only general renderings into English are given; the older poems are not properly translatable into another tongue. I have not attempted it. There occur words so ancient that their meanings have become lost, and occult allusions almost or quite impossible of elucidation. In the folk-lore tales and tribal legends the exact Maori phrase description of any striking custom or statement has been preserved. Alas! from what the writer has been able to gather from the annals of the Ngai-Taura alone he is cognisant of the wealth of material that must have elsewhere perished.

The lands described under the designation Tutira were included in the immense territory of old, claimed or occupied by the Ngati-kahungunu—a countryside stretching from Gisborne to Woodville—from Turanga to Tamaki. Descent is claimed by the Ngati-kahungunu from Rongo-kako, whose son Tamatea arrived in the fast-sailing Takitimu, one of the most famous canoes of the great *heke* or migration from the mythical Hawaiki. In this great tribe was included the *hapu* living on or possessing interests in Tutira.



LANDS OF THE NGAU-TATARA, AND SUB-TRIBES BY WHOM THEY WERE SURROUNDED.

Handwritten mark resembling the number 2

it had been known as Ngai-Tatara, but later, for reasons yet to be told, it was styled Ngati-kuru-mokihi: it was made up of two minor septs—the Ngati-moe and the Ngati-Hinerakai—each of which, moreover, possessed its own especial cultivation-plots. The two were, however, indissolubly allied “*ka matenga*”—friends together to the death. There were also intimate ties of blood and friendship connecting them with the neighbouring *hapu*. In the accompanying map are marked the boundaries of the lands of the Ngai-Tatara, and the names of the sub-tribes by whom they were surrounded.

Although there were *pa*—stockades—built on Tutira, yet within its boundaries the Ngai-Tatara were in great degree wanderers. At any rate they did not chiefly put their trust in stationary fastnesses; rather they relied on stout hearts and active limbs; “*Ko to ratou pa ko nga rekereke*”—“their *pa* were in their heels”: that was the tribal motto. Like the Douglas of old, they preferred to hear the lark sing rather than the mouse squeak. Their temporary camping-grounds were chosen, doubtless, according to the seasons and the conditions of food supply. As another local proverb has it: “*Ka pa a Tangitu, ka huaki a Maungaharuru, Ka pa a Maungaharuru ka kahi a Tangitu.*” “When Tangitu”—the deep-sea fishing-ground off Tangitiro—“is closed, Maungaharuru”—a mountain range prolific in bird life—“opens; when Maungaharuru closes, Tangitu opens.”

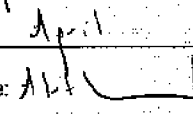
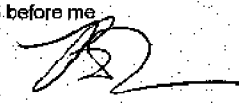
Man, like other animals, is dependent for his maintenance and increase on the nature of the soil in his possession. The Maori is a descendant of ancestors who have travelled from warmer climes; in New Zealand he has clung to the coasts, to the thermal regions, and to the northern portions of the North Island. The Ngai-Tatara during winter, and whilst planting of crops was in progress, dwelt chiefly about the estuaries of the local rivers. The climate of Tutira was rather too cold and wet, the land usually too poor for the cultivation on a great scale of such exotics as the taro (*Colocasia anti-carolinensis*), the hue (*Lagenaria vulgaris*), and the kumara (*Ipomoea batatas*). On the other hand, the flax (*Phormium tenax*)¹ growing about its swamps was celebrated for strength, the shallows of the lake were paved with mussel-beds—*makahi* (*Diplodon latulentus*), the flavour of its eels was unsurpassed. They were speared in the lakes, they were caught in enormous numbers in eel-weirs—*paerau*—or in *whare tuna* built along the edges of streams. In the forests of the interior, pigeon (*Hemiphaga novaeseelandiae*), tui (*Prosthemadera novaeseelandiae*), and kaka (*Nestor meridionalis*) abounded; they were captured by means of decoy birds, or snared by natives ambushed beneath selected trees.

¹ Through this plant an acquaintance with the Latin tongue is the heritage of every man, woman, and child in New Zealand. All know two words of it—*Phormium*, flax; *tenax*, tough. No writer on country matters can forgo the magic words; even flax-millers attain scholarship. What *fas roburum* was to Wamba, the son of Wifless, *Phormium tenax* is to the New Zealand farmer. Wood may be down, stock may be down; he braces himself in the knowledge that *Phormium* means flax, and *tenax* tough.

"H"

This is the exhibit marked "H" referred to in the affidavits of Edward Waaka on behalf of the Trustees of the Ngāi Pahauwera Development and Tiaki Trusts affirmed at

Napier this 13th day of April 2015 before me

Signature:  

A Solicitor of the High Court of New Zealand / Justice of the Peace

Ailie Sutherland
Solicitor
Napier

MAORI STORIES AND

in the ancient ceremony of the exhumation, scraping and re-burial of the remains of deceased warriors. In the internecine wars of pre-European days when many noted warriors fell to the mere or taiaha, it was considered a great feat to obtain the head and other parts of the anatomy of the fallen warrior. The head would be preserved as a trophy of war, and such parts as the leg and arm bones would be used to make the native koauau (flute) or the putorino (nose-flute) and occasionally matau (fish hooks).

Great value was attached to such instruments, more especially if the warrior had been a noted toa (brave), as it was considered that the spirit of the warrior was imparted through his bones to their possessors. So it can be seen that every precaution would be taken to prevent the body of a fallen brave from falling into the hands of the enemy. The body was often hurriedly interred in a cave or hollow tree by a few trusty warriors, who kept the secret closely in case the remains should be discovered by an enemy later on. Even when a chief died from natural causes the body was hidden away by a select few after the tangi, or mourning celebrations, were over. It can be seen, therefore, that in the course of time, in various parts of the country, there would be quite a number of these remains deposited over the years. After a lapse of years, most likely in a time of comparative peace, these remains would be collected and buried in a wahi tapu (sacred burying place) with due ceremony and mourning. This was the "Hahanga".

This is the exhibit marked "I" referred to in the affidavit of Toro Edward Waaka on behalf of the Trustees of the Ngāti Pāhauwera Development and Tiaki Trusts affirmed at

Napier this 13th day of

April 2015 before me

Signature:

Alice Sutherland
Solicitor
Napier

A Solicitor of the High Court of New Zealand / Justice of the Peace

APPROACHING TO FIGHT

18

... and up some steep sandy gorge
... cliffs which line the Ripiro coast in
... portages, together with the frequent
... of many of New Zealand's waters, severely
... the amount of travelling that could be done by
...

The Maori foot-tracks² were narrow paths worn smooth by the repeated pressure of bare feet and kept open by travellers' breaking off of encroaching bush. The tracks went uphill and down, varying in their routes according to the topography. They were fairly straight in general direction but had many small bends due to such obstructions as rocks and fallen trees. Outlooks on a knoll or the brow of a hill were favorite resting places. There was some preference for paths that ran along the tops of ridges, from where the approach of hostile war parties could be observed. Other paths, however, had their course along valley bottoms. A stream-bed occasionally answered the purpose of a path in very rugged country. The beach also served as a road at times, especially on the North Island's western coast, which has long, flat stretches of sand. An important track following the coast from Kawhia to Wellington is said to have utilized "every little piece of beach that existed." Some war parties' advance along the beach was timed so as to have high tide wash out all their traces.³ Except in the immediate vicinity of villages, all the regular Maori tracks were only a few inches wide and thus were suited to travelling only in single file. This form of column was, according to S. P. Smith, the order which all Maori war parties employed on the march.⁴ Large war parties, therefore, were usually strung out for considerable distances along the track. When the scouts in advance gave an alarm, the party is supposed to have gathered together around the chiefs to await the arrival of the rear-guard of warriors, who sometimes marched behind any supply-

² The tracks of the western coast were especially rough and were called *hāi kōwhiri* (the man's way) by the Maori. The coastal hills, and the bay harbours and narrow straits of the coast were made much more dangerous and impassable of such obstructions.

³ As recorded by Rev. J. S. G. Smith, *Maori*, South Islands, p. 100.

⁴ *Maori*, p. 100.
⁵ *Maori*, p. 100.
⁶ *Maori*, p. 100.

"J"

2. **WAHI TAPU/SIGNIFICANT SITES** The Chairperson reporting:
M08-0002

Discussion Paper regarding the Consents process.

"Wahi tapu are places that are left to decay with dignity".

Modern day activities will not allow this to happen.

Expedient changes in rules/laws/by-laws that are put through without discussion or consultation with all the affected parties is cause for concern because such places are disturbed.

Like a Pandora's box the emotions and forces are unleashed and they need to be allayed if at all possible.

What must be done to quell these emotions and forces so that the disturbances can be put to rest?

What happens when cables, water pipes etc are breached during excavations and building?

What is done to avoid this happening?

What legislative protection is there?

The development of Crown responsibilities and Local Authorities through Conservation Act, Resource Management Act, Historic Places Act, Rating Powers Act, Environment Act, Te Ture Whenua Maori Act, The Treaty of Waitangi (SOE) Act, Crown Forest Assets Act, NZ Railways Corporation Act, Education Amendment Act, deal with the legislative requirements for management of physical geographical areas.

However, there needs to be a process, in order for there to be an outcome, which deals with the intangible areas of spirituality and wairua for the continuing health of the people who occupy land.

Consultation, discussion, conditions, decision and acceptance should be agreed.

Thus we have our "Consents Procedures" and the "Iwi Consultation". Together these deal with both aspects of land stewardship.

Recommendation

That the matter be discussed at the meeting.

This is the exhibit marked "J" referred to in the affidavit of Toru Edward Waaka on behalf of the Trustees of the Ngāti Pāhauwera Development and Tiaki Trusts affirmed at	
<u>Napier</u>	this <u>13th</u> day of
<u>April</u>	2015 before me
Signature: <u>[Signature]</u>	<u>[Signature]</u>
A Solicitor of the High Court of New Zealand / Justice of the Peace	

Allie Sutherland
Solicitor
Napier

THE MANAGEMENT AND PROTECTION

of

WAAHI TAPU SITES

on

LAND MANAGED

by the

DEPARTMENT OF CONSERVATION:

A DISCUSSION DOCUMENT

*Department of Conservation
Head Office
September 1995*

(i)

FOREWORD

The Department of Conservation is undertaking a process of consultation before deciding what policy advice to give to the Minister of Conservation about the following recommendations of the Waitangi Tribunal:

"That the Crown re-affirms the traditional and Treaty rights of tangata whenua to control and protect their own waahi tapu and requires the Department of Conservation and other of its agents concerned in the management of national and cultural resources to give practical effect to this commitment."

These recommendations were made by the Tribunal in its report on the Te Roroa claim.

The Department of Conservation is involved in this matter because it has certain responsibilities for historic resources, such as waahi tapu sites, as set out in the Conservation Act 1987 and the other Acts related to it.

This paper has been prepared to provide information and assist discussion. The Department's draft intentions are stated, and relevant legal and other considerations are outlined. The paper will help those who are consulted to respond on the matters for discussion.

As a result of consultation the Department hopes to find a course of action which will be accepted by all stakeholders in conservation (both Maori and non-Maori).

The paper does not set out to deal with issues affecting waahi tapu off land managed by the Department nor to address resolution of any specific claim made to the Waitangi Tribunal.

Bill Mansfield
Director-General of Conservation

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1. WHAT IS A WAAHI TAPU ?

Information

The definition of what waahi tapu means varies among iwi. Many definitions relate to places. However, not all places of significance in Maori culture are regarded as "waahi tapu". In addition waahi tapu can apply to physical features such as a prominent landmark, rock or tree. Moreover, the 'tapu' designation may only apply to a specific part of the feature.

A list of possible definitions and/or descriptions (all drawn from published sources) is given below. The first two are taken from legislation.

Definitions

- Waahi tapu is land of special spiritual, cultural or historical [Maori] tribal significance¹.
- Waahi tapu means a place sacred to Maori in the traditional, religious, ritual or mythological sense².
- A waahi tapu is a place or feature that has special significance to a particular tribal group³.
- Maori waahi tapu are cultural sites of spiritual value which can be loosely classed as "sacred" sites and provide genealogical links for Maori and often merge recent history into the stories of creation⁴.
- Waahi tapu include objects or features (of land and water) of special spiritual, cultural, historical or emotional significance or association to tangata whenua⁵.
- Waahi tapu (waahi taonga) includes all those natural resources that sustain life, and that are culturally and historically important to ... the tribe to which they belong⁶.
- A waahi tapu is a place known to be associated with the tupuna and does not need to have obvious archaeological surface features⁷.
- Waahi tapu are a particular type of traditional Maori site and historic place⁸.
- Waahi tapu are places held in reverence according to tribal custom and history⁹.

Acts Administered by the Department

Some of the types of places defined above are found in land administered by the Department of Conservation under the provisions of the Conservation Act 1987 (and some of the Acts listed in its First Schedule eg the National Parks Act 1980, Reserves Act 1977 and the Marine Reserves Act 1971. A full list is found in Appendix 1).

As well as being waahi tapu, in terms of tikanga Maori, places such as those defined may also be "historic places" under the provisions in the Historic Places Act 1993 (eg relating to archaeological sites).

References:

1. Section 27D State Owned Enterprises Act 1986.
2. Historic Places Act 1993.
3. Report of the Officials Group on the Settlement of Claims (22.02.89) to the Cabinet Policy Committee.
4. Waahi Tapu: Protection of Maori Sacred Sites. Manatu Maori 1991.
5. Waahi Tapu: Report for the Hamilton City Council Planning and Development Group. Des Tatana Kahotea. University of Waikato, 1990.
6. Waahi Taonga and Waahi Tapu. Rakihiia Tau. Planning Quarterly. June, 1992.
7. He Taonga Tuku Iho: A Treasure Handed Down by the Ancestors. Peter Addis. The Landscape, Autumn/Winter, 1991.
8. Statement by Ian Lawlor on the Te Roroa claim. February 1990.
9. Te Whakatau Kaupapa: Ngai Tahu Resource Management Strategy for the Canterbury Region. Te Maire Tau et.al. 1990.

2. THE NATURE OF TAPU AND ITS RELATIONSHIP TO PLACE

Information

Tapu as a General Concept

Tapu remains a strong force in Maori culture¹. Maori atua (spiritual powers) are sometimes the vivifying force that make tapu effective, and it represents their mana². Tapu provides the link between the past and the present for contemporary Maori³.

There are many different kinds and degrees of tapu and the term has a wide range of meaning. The essence of tapu is the setting apart of things, places and persons, and includes their dedication to atua. In many instances they became inviolate or forbidden⁴, being under religious or ceremonial restriction⁵.

Everything was subject to tapu - people, homes, gardens, personal belongings, land, forests, trees, rivers - and came under tapu from time to time⁶ either permanently or temporarily⁷.

Tapu as a Traditional Control on Access

A tapu might stay in place for generations, with any activities which disturbed the sanctity of the tapu being prohibited⁸.

Access to tapu sites was generally restricted to those prepared to follow appropriate procedures⁹. Tapu does not always merely prohibit; it sometimes insists upon a certain course of action¹⁰. Tapu sites were not public areas¹¹. In some cases sacred places (tuahu) were traditionally difficult to access (eg situated in precipitous places). In other cases ceremonies were performed at a stream or pond close to habitation. For example, a portion of the waterway (wai tapu) would be set aside for such purposes and viewed as a place not to be trespassed on¹².

A minor form of tapu placed on an area of land might not actually prohibit people crossing it but imposed an obligation of careful behaviour (eg not taking cooked food into a forest during the bird snaring season¹³).

Lakes, rivers and stretches of the sea might be placed under embargo (rahui) for various reasons so that no fish might be taken from them, and in some cases no canoe might traverse them. While crops were growing cultivations were placed under intense tapu, with severe penalties for trespassers¹⁴.

References:

1. **Wahi Tapu: Report for the Hamilton City Council Planning and Development Group. Des Tatana Kohotea. Unpublished 1990.**
2. **Maori Religion and Mythology. Part 2. Elsdon Best, Government Printer 1982.**
3. **Wahi Tapu: Protection of Sacred Sites. Manatu Maori 1991**
4. **Te Tikaanga Maori: Bicultural Development. Ihi Communications and Consultancy. Unpublished 1991.**
5. **Laws and Their Limitations: Protection of Wahi Tapu in NZ. Susan Bulmer and Kaye Chandler Green. Unpublished.**
6. **Recreation and Preservation of Sacred Mountains. Evelyn Stokes. Land Use Seminar: Recreation and Preservation, Dunedin 1980.**
7. **Economics of the NZ Maori: Dr Raymond Firth. Government Printer 1972.**
8. **Maori Religion and Mythology. Part 1. Elsdon Best. Government Printer 1976.**

3. TREATY OF WAITANGI CLAIMS

Information

In the event of a Maori claim to the ownership or control of natural or historic resources (including waahi tapu sites held by the Crown) the Department of Conservation advises the Minister of Conservation on conservation aspects. The Department may participate in the claims resolution process led by the Department of Justice.

Comment:

The Crown and Maori have specific Treaty rights and duties which the courts will give recognition and definition to if expressed in statute. The Treaty allows Maori an unique relationship with the Crown over management of its land holdings, especially those which contain waahi tapu.

If any Maori or Maori group holds a grievance about Crown ownership or control of land (eg a conservation area) a means of redress is provided for in the Treaty of Waitangi Act 1975. In that process the Department has statutory responsibilities. The Minister of Conservation and Director-General of Conservation may also call on advice from the New Zealand Conservation Authority and other statutory bodies as required.

It is the government intention that discrete sites (on surplus Crown lands) of special historical, cultural or spiritual value to Maori will be returned to Iwi. Limited areas of land administered by the Department become surplus from time to time. However, in general terms, conservation areas, reserves, national parks and like areas are not readily available for the settlement of Treaty claims and will only be considered in certain circumstances.¹ The Crown's land, administered by the Department, is held in trust for the benefit of the public, both Maori and non-Maori. Such land cannot be declared surplus - other than by Parliament - unless the requirements of the Act under which it is administered are first met. Such requirements may include giving full consideration to all written public submissions or objections.

Footnote: 1. *Press statement by the Minister of Conservation and Minister in Charge of Treaty of Waitangi Negotiation dated 24 June 1994.*

4. THE LEGISLATION

Propositions

The Conservation Act and related Acts provide the Department of Conservation with a basic code for the conservation of waahi tapu areas on land it manages.

A waahi tapu site is an "historic resource" for the purpose of the Conservation Act 1987 and "a place of historic interest" for the purpose of the Reserves Act 1977 and the National Parks Act 1980.

Waahi tapu sites are conserved and managed, accommodating Maori values, within the context of these Acts.

Comment:

The Government issued a directive in 1989, as follows:

"... officials [are] to give specific effect to the Government obligation actively to protect waahi tapu and to the need for the tangata whenua to have a central involvement in any protection processes."¹

This policy stemmed from the Crown's duty under the Treaty of Waitangi and was applied to a number of legislative reviews under way at the time. It is, however, the expression of that policy in the Acts - rather than the policy itself - which imposes a legal obligation on the Department in administering the lands under its control.

The provisions of the law create public perceptions and may effect a change in attitudes. What an Act appears to say is often more important than what it actually says. The words "waahi tapu" do not, for example, occur in some of the key Acts which the Department administers. The application of those Acts to the protection of waahi tapu areas on the conservation estate may not therefore be widely understood.

The issue would only become crucial if there was a legal challenge to whether or not a waahi tapu was an historic resource (Conservation Act), or a site, place, object or natural feature of special historic, archaeological, cultural, educational or other special interest (Reserves Act and National Parks Act).

The Conservation Act does not use the word "waahi tapu", nor is the meaning of "historic resources" set out in the Act itself, but only by reference to the meaning of "historic place" in the Historic Places Act. Thus, some people may form the impression that waahi tapu do not come within the ambit of the Department. That is a false impression.

The statutory meaning of an "historic resource" for the purposes of the Conservation Act is paraphrased as follows:

- any land (including anything that is in or fixed to it and any archaeological site) or any building or structure that forms part of the historical and cultural heritage of New Zealand and lies within the territorial limits of New Zealand;

- an "archaeological site" for the sake of this report is a place in New Zealand that is or may be able, through investigation by archaeological methods, to provide evidence relating to the history of New Zealand.
(cf section 2, Historic Places Act).

Given the reference to "any land ... that forms part of the ... cultural heritage of New Zealand" waahi tapu would appear to be well-covered, and a legal challenge unlikely.

The Historic Places Act applies to the modification of "archaeological sites" (some of which may be waahi tapu). It requires anyone (including the Department) in carrying out development or archaeological investigation of such sites, to obtain the prior authority of the Historic Places Trust. The consent of the iwi authority for the area, or other body as the Maori Heritage Council considers appropriate, is normally required.

The Resource Management Act 1991 is also binding on the Crown and contains a number of controls on resource use. There are limited exemptions for land administered under the Conservation Act or other Acts in its First Schedule.

District and Regional Plans prepared under the Resource Management Act by local government will provide for the relationship of Maori and their cultures and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga to be recognised (see sections 6 and 8 of that Act).

Matters for discussion: *Can iwi and the Department effectively manage waahi tapu sites within the existing definitions in the key Acts? If not, what changes are needed to the definitions of historic resources or places of historic interest?*

References:

1. Memorandum from the Office of the Prime Minister to the Director-General of Conservation et.al. dated 22 February 1989.

5. STATUTORY RESPONSIBILITIES OF THE DEPARTMENT OF CONSERVATION

Propositions

Function:

The Department of Conservation's responsibilities, include the following:

- **giving effect to the treaty relationship between Maori and the Crown when providing its services;**
- **taking an appropriate role in managing - in accordance with the relevant statutory provisions - all waahi tapu sites which it controls;**
- **advocating the conservation of waahi tapu generally;**
- **co-operating with Maori in promoting to present and future generations the benefits of conserving waahi tapu sites as historic resources;**
- **providing for appreciation of waahi tapu sites by the public only to the extent that is consistent with maintaining their intrinsic values and safeguarding the options of future generations.**

(cf sections 2, 4 and 6, Conservation Act.)

Sharing Responsibility

These responsibilities are to be carried out by the Department - or they can be devolved to persons or other bodies (generally or for particular places) - to the extent provided by statute.

(cf Conservation result #2 Atawhai Ruamano Conservation 2000.)

Comment:

Acting on the Minister's behalf, the Department can be regarded as the appointed guardian of waahi tapu sites but only on the land which it manages.

Parliament has legislated for discretion in the Conservation Act and related Acts allowing suitable arrangements to be made for Iwi (and the public) to participate - in various ways - in the management of land and resources which the Department administers. The relationship between Maori and the Crown, envisaged by the Treaty of Waitangi, is founded on reasonableness, mutual co-operation and trust.

None of the Acts administered by the Department specifically require the Department to have particular regard to kaitiakitanga when statutory decisions are made (cf s.7 Resource Management Act 1991). However, to do so when dealing with waahi tapu sites would be consistent with the requirements of section 4 of the Conservation Act.

Matter for Discussion: *What is required to make shared responsibility work in the management of waahi tapu sites?*

Cross-reference to Section 10.

6. THE TREATY DUTY OF THE DEPARTMENT

Propositions

Each employee of the Department of Conservation who is involved in conservation planning and management is responsible for taking into account the protection of waahi tapu sites and understanding tangata whenua concerns about them to the extent that such information is forthcoming and available.

Kaupapa Atawhai Managers have a central role in the Department in monitoring and advising on consultation with iwi.

The Department of Conservation's practice concerning the protection and use of waahi tapu areas on the land it controls includes a spirit of co-operation with iwi and, if the integrity of any waahi tapu is at issue, management decisions will be made in the light of information shared by the Treaty parties.

Comment:

All archaeologists employed by the Department are members of the NZ Archaeological Association which has a code of ethics stating a particular obligation to recognise the rights of the tangata whenua.

The Department has a duty to make informed decisions concerning waahi tapu. Consultation with the tangata whenua of the place may be required, and the Department must act reasonably as a result of the consultation. However, in a conservation emergency, the decision-maker has to be able to take whatever action is needed based on the knowledge already available. (See Chapter 8.)

Matter for Discussion: *In the context of this paper is the above approach an adequate basis to equip the Department to meet the duty of reasonable co-operation?*

does this mean all emp have a bit of waahi tapu?

7. INTERNATIONAL RESPONSIBILITIES

Proposition

The Department of Conservation promotes the benefits to present and future generations of international co-operation on matters relating to conservation generally, including the protection of waahi tapu sites.

(cf section 6 Conservation Act.)

Comment:

The Department is a corporate member of the International Council on Monuments and Sites (ICOMOS) which has adopted a New Zealand Charter for the Conservation of Places of Cultural Heritage value through its NZ National Committee/Te Mana O Nga Pouwhenua O Te Ao. [A copy of the Charter is found in Appendix 2.]

The Department applies the provision of the charter when managing the waahi tapu areas for which it is responsible. If the charter is inconsistent with the statutory requirements applicable to particular places then the statutory requirements take precedence.

New Zealand is party to the Agenda 21 accord as agreed to at the United Nations Conference on Environment and Development at Rio De Janeiro in 1992. Agenda 21 signals the beginning of a global partnership for sustainable development and among its many programmes is the recognition of the relationship of indigenous peoples with the land and resources to achieve for instance, their participation in the establishment or management of protected areas and, inter alia, the strengthening of policies which will protect indigenous cultural property.

An additional obligation lies in the ratification by New Zealand of the Convention on Biological Diversity in 1993. The Convention recognises that government policies may contribute to the loss and as a remedy, advocates the protection and encouragement of customary use of biological resources where that use is compatible with conservation.

The Department is anxious that its policies conform with New Zealand's international obligations.

Matter for Discussion: *Is the above approach an acceptable basis for the operational management of waahi tapu sites on land managed by the Department in terms of international co-operation?*

8. INFORMATION NEEDS

Propositions

The Department of Conservation acknowledges that the tangata whenua are the repository of knowledge about waahi tapu location and tikanga and that its staff does not have an automatic right to learn that knowledge, and that any teaching or sharing of it is at the discretion of the tangata whenua. It follows that departmental staff cannot be accountable where they are denied the information necessary for proper management of waahi tapu sites.

Consultative processes, developed with tangata whenua participation and confidence, are likely to be the best means of meeting any need the Department may have for information about waahi tapu on the land it manages.

Comment:

The concepts of *wairua* and *tapu* require that knowledge of waahi tapu be available to expert members of tribal groups but not necessarily to all who seek to learn.

Traditionally, the location of some waahi tapu may have been known only to a few kaumatua/elders. The knowledge was passed on orally and carried with it a tapu and the preservation of iwi mana. Some published information about waahi tapu may have resulted from authors' failure to respect that tradition.

Those kaumatua who hold the knowledge, and the operational staff of the Department in the field, owe each other a duty of co-operation to ensure that the conservation of waahi tapu on land controlled by the Department is not adversely affected by use and activities. This may be achieved by the limited sharing and use of information in a manner which does not pose any dilemma for the tangata whenua.

The Department will also be able to obtain some information in due course from the Register of historic places, historic areas, waahi tapu and waahi tapu areas set up by the New Zealand Historic Places Trust/Pouhere Taonga, and the Maori Heritage Council, under the provisions of section 22 Historic Places Act 1993.

The Department needs information about waahi tapu values when its staff are involved in activities such as:

- fostering recreational use of conservation lands;
- allowing tourism use;
- developing facilities;
- granting leases and licences;
- managing plant and animal species (including in conservation emergencies);
- and
- recording, investigating or conserving historic resources.

Good point

Matter for Discussion: *Is the above proposal a workable compromise between the 'need-to-know' principle and the requirements of confidentiality? If not, outline what you consider to be a more suitable proposal.*

9. PROTECTION OF WAAHI TAPU

Propositions

The protection of waahi tapu sites on land managed by the Department of Conservation is facilitated by appropriate planning, and the conservation classification of the land through the most suitable statutory processes.

In most circumstances it will not be necessary to make the choice between protecting natural resources or historic resources in conservation management.

Comment:

The Acts, and consultation with Iwi and the public, provide various means for resolving any differences about protection priorities. These means include conservation management planning as well as land classification for primary purposes (eg see Chapter 10).

Protection of historic resources is given a legal guarantee, as a primary purpose, both in the case of areas classified under the Reserves Act as historic reserves and in the case of specially protected areas for historic purposes under the Conservation Act and the National Parks Act.

Matter for Discussion: *Where the protection of waahi tapu sites, as an historic resource, might be at odds with protection of any associated natural resource values how should the issue be worked through?*

10. PUBLIC ACCESS TO WAAHI TAPU

Proposition

In managing the lands under its control (including waahi tapu sites) the Department of Conservation is generally bound to foster their use for recreation (and to allow their use for tourism) only to the extent that the use is consistent with conserving natural and historic resources. [cf Section 6(e), Conservation Act]. The test for "consistency" is partly determined by the land use classification(s).

Comment:

Modern transport, and back-country recreation and tourism, have made many waahi tapu sites readily accessible - even those places originally selected for their isolation from habitation. Some landmarks and features which are waahi tapu have gained cultural significance to non-Maori, although they remain important to the tangata whenua. Differing cultural views about access may therefore need to be considered in particular places.

However, members of the public do not have a lawful right of access to all classes of land administered by the Department (eg the classification "specially protected area" in national parks). Visitors have to apply for a written permit, which may be approved or declined.

In other classes of land, access may be restricted for protection purposes by way of bylaw or regulation (eg an historic reserve) or closed by the decision of the Minister of Conservation (eg any conservation area).

In some circumstances it may be sufficient (in consultation with the tangata whenua) to take all reasonable steps to make sure the public is made aware of the appropriate tikanga for visiting a waahi tapu. [For example an information leaflet about Otatara Pa Historic Reserve - Department of Conservation, 1992 - says:

"Sites where there have been fighting, death or burials are considered sacred by the Maori people. Feel free to wander and look, but please respect that the pa areas are waahi tapu (sacred places). According to Maori protocol food is not to be taken onto such places."]

Matter for Discussion: *Will the above arrangements give the Department adequate scope to control access to waahi tapu sites on land it manages?*

If not, what arrangements would you recommend to cater for access and still maintain the sanctity of the site? Cross-reference to Section 5.

GLOSSARY

Definitions of these words relate to their meanings as they appear in the text.

Archaeological Site:	defined in the text - see page six.
Atawhai Ruamano:	a 1993 statement of strategic intent by the Department of Conservation.
Conservation Emergency:	any situation where there is a sudden and real risk of loss (or degradation) of a natural or historic resource if action is not taken in a shorter time than full consultation would allow (eg a wild fire, a new threat of extinction of a species).
Historic Resource:	defined in the text - see page five.
Kaupapa Atawhai:	guiding philosophy for the development of bi-cultural initiatives in the Department of Conservation.
Land Use Classification:	all land in the conservation estate is held for a particular statutory purpose or purposes. The purpose(s) of each parcel of land is indicated by its classification (eg historic reserve). The process of classification usually involves inviting public submissions and may involve consultation with iwi authorities.
Tangata Whenua:	either the iwi or the hapu of that place as the case may require. (Not all waahi tapu will be significant to the iwi as a whole.) More than one iwi or hapu may claim relatedness to a particular place and have different expressions of mythology and tikanga regarding it.
Taonga:	a taonga for the purposes of the Treaty of Waitangi.
Tapu:	defined in the text - see page three.
Tikanga Maori:	Maori customary values and practices.
Treaty Duty:	defined in the text - see page 10.
Tupuna:	Maori ancestor.
Waahi Tapu:	defined in the text - see page one.
Waahi Tapu site:	a piece of land (dry or water-covered) in land managed by the Department of Conservation identified by the tangata whenua as a site of a traditional waahi tapu. It may or may not also have non-Maori historic resource values or natural resource values.

ACTS ADMINISTERED BY THE DEPARTMENT OF CONSERVATION

As set out in the First Schedule to the Conservation Act

Conservation Act 1987
Conservation Law Reform Act 1990
The Canterbury Provincial Buildings Vesting Act 1928
The Foreshore and Seabed Endowment Revesting Act 1991
The Harbour Boards Dry Land Endowment Revesting Act 1991
The Historic Places Act 1980 (now 1993)
The Kapiti Island Public Reserve Act 1897
The Lake Wanaka Preservation Act 1973
The Marine Mammals Protection Act 1978
The Marine Reserves Act 1971
The Mount Egmont Vesting Act 1978
The National Parks Act 1980
The Native Plants Protection Act 1934
The New Zealand Walkways Act 1990
The Queen Elizabeth II National Trust Act 1977
The Queenstown Reserves Vesting and Empowering Act 1971
The Reserves Act 1977
The Stewart Island Reserves Empowering Act 1976
The Sugar Loaf Islands Marine Protected Area Act 1991
The Trade in Endangered Species Act 1989
The Waitangi Endowment Act 1932-33
The Waitangi National Trust Board Act 1932
The Wild Animal Control Act 1977
The Wildlife Act 1953

**ICOMOS NEW ZEALAND CHARTER
FOR THE CONSERVATION
OF PLACES OF CULTURAL HERITAGE VALUE**

[A Copy of this document is attached]



ICOMOS NEW ZEALAND CHARTER FOR THE CONSERVATION OF PLACES OF CULTURAL HERITAGE VALUE

PREAMBLE

New Zealand retains a unique assemblage of places of cultural heritage value relating to its indigenous and its more recent peoples. These areas, landscapes and features, buildings, structures and gardens, archaeological and traditional sites, and sacred places and monuments are treasures of distinctive value. New Zealand shares a general responsibility with the rest of humanity to safeguard its cultural heritage for present and future generations. More specifically, New Zealand peoples have particular ways of perceiving, conserving and relating to their cultural heritage.

Following the spirit of the International Charter for the Conservation and Restoration of Monuments and Sites (the Venice Charter 1966), this charter sets out principles to guide the conservation of places of cultural heritage value in New Zealand. It is intended as a frame of reference for all those who, as owners, territorial authorities, tradespeople or professionals, are involved in the different aspects of such work. It aims to provide guidelines for community leaders, organisations and individuals concerned with conservation issues. It is a statement of professional practice for members of ICOMOS New Zealand.

Each section of the charter should be read in the light of all the others. Definitions of terms used are provided in section 22.

Accordingly this charter has been adopted by the New Zealand National Committee of the International Council on Monuments and Sites at its meeting on 7 March 1993.

1. THE PURPOSE OF CONSERVATION

The purpose of conservation is to care for places of cultural heritage value, their structures, materials and cultural meaning. In general, such places:

- (i) have lasting values and can be appreciated in their own right;

- (ii) teach us about the past and the culture of those who came before us;

- (iii) provide the context for community identity whereby people relate to the land and to those who have gone before;

- (iv) provide variety and contrast in the modern world and a measure against which we can compare the achievements of today; and

- (v) provide visible evidence of the continuity between past, present and future.

2. INDIGENOUS CULTURAL HERITAGE

The indigenous heritage of Maori and Moriori relates to family, hapu and tribal groups and associations. It is inseparable from identity and well-being and has particular cultural meanings.

The Treaty of Waitangi is the founding document of our nation and is the basis for indigenous guardianship. It recognises the indigenous people as exercising responsibility for their treasures, monuments and sacred places. This interest extends beyond current legal ownership wherever such heritage exists. Particular knowledge of heritage values is entrusted to chosen guardians. The conservation of places of indigenous cultural heritage value therefore is conditional on decisions made in the indigenous community, and should proceed only in this context. Indigenous conservation precepts are fluid and take account of the continuity of life and the needs of the present as well as the responsibilities of guardianship and association with those who have gone before. In particular, protocols of access, authority and ritual are handled at a local level. General principles of ethics and social respect affirm that such protocols should be observed.

3. CONSERVATION PRACTICE

Appropriate conservation professionals should be involved in all aspects of conservation work. Indigenous methodologies should be applied as

appropriate and may vary from place to place. Conservation results should be in keeping with their cultural content. All necessary consents and permits should be obtained.

Conservation projects should include the following:

- (i) definition of the cultural heritage value of the place, which requires prior researching of any documentary and oral history, a detailed examination of the place, and the recording of its physical condition;
- (ii) community consultation, continuing throughout a project as appropriate;
- (iii) preparation of a plan which meets the conservation principles of this charter;
- (iv) the implementation of any planned work; and
- (v) the documentation of any research, recording and conservation work, as it proceeds.

GENERAL PRINCIPLES

4. CONSERVATION METHOD

Conservation should:

- (i) make use of all relevant conservation values, knowledge, disciplines, arts and crafts;
- (ii) show the greatest respect for, and involve the least possible loss of, material of cultural heritage value;
- (iii) involve the least degree of intervention consistent with long term care and the principles of this charter;
- (iv) take into account the needs, abilities and resources of the particular communities; and
- (v) be fully documented and recorded.

5. RESPECT FOR EXISTING EVIDENCE

The evidence of time and the contributions of all periods should be respected in conservation. The material of a particular period may be obscured or removed if assessment shows that this would not diminish the cultural heritage value of the place. In these circumstances such material should be documented before it is obscured or removed.

6. SETTING

The historical setting of a place should be conserved with the place itself. If the historical setting no longer exists, construction of a setting based on physical and documentary evidence should be the aim. The extent of the appropriate setting may be affected by constraints other than heritage value.

7. RISK MITIGATION

All places of cultural heritage value should be assessed as to their potential risk from any natural process or event. Where a significant risk is determined, appropriate action to minimise the risk should be undertaken. Where appropriate, a risk mitigation plan should be prepared.

8. RELOCATION

The site of an historic structure is usually an integral part of its cultural heritage value. Relocation, however, can be a legitimate part of the conservation process where assessment shows that:

- (i) the site is not of associated value (an exceptional circumstance); or
- (ii) relocation is the only means of saving the structure; or
- (iii) relocation provides continuity of cultural heritage value.

A new site should provide a setting compatible with cultural heritage value.

9. INVASIVE INVESTIGATION

Invasive investigation of a place can provide knowledge that is not likely to be gained from any other source. Archaeological or structural investigation can be justified where such evidence is

about to be lost, or where knowledge may be significantly extended, or where it is necessary to establish the existence of material of cultural heritage value, or where it is necessary for conservation work. The examination should be carried out according to accepted scientific standards. Such investigation should leave the maximum amount of material undisturbed for study by future generations.

10. CONTENTS

Where the contents of a place contribute to its cultural heritage value, they should be regarded as an integral part of the place and be conserved with it.

11. WORKS OF ART AND SPECIAL FABRIC

Carving, painting, weaving, stained glass and other arts associated with a place should be considered integral with a place. Where it is necessary to carry out maintenance and repair of any such material, specialist conservation advice appropriate to the material should be sought.

12. RECORDS

Records of the research and conservation of places of cultural heritage value should be placed in an appropriate archive and made available to all affected people. Some knowledge of places of indigenous heritage value is not a matter of public record, but is entrusted to guardians within the indigenous community.

CONSERVATION PROCESSES

13. DEGREES OF INTERVENTION

Conservation may involve, in increasing extent of intervention: non-intervention, maintenance, stabilisation, repair, restoration, reconstruction or adaptation. Where appropriate, conservation processes may be applied to parts or components of a structure or site.

Re-creation, meaning the conjectural reconstruction of a place, and replication, meaning to make a copy of an existing place, are outside the scope of this charter.

14. NON-INTERVENTION

In some circumstances, assessment may show that any intervention is undesirable. In particular, undisturbed constancy of spiritual association may be more important than the physical aspects of some places of indigenous heritage value.

15. MAINTENANCE

A place of cultural heritage value should be maintained regularly and according to a plan, except in circumstances where it is appropriate for places to remain without intervention.

16. STABILISATION

Places of cultural heritage value should be protected from processes of decay, except where decay is appropriate to their value. Although deterioration cannot be totally prevented, it should be slowed by providing stabilisation or support.

17. REPAIR

Repair of material or of a site should be with original or similar materials. Repair of a technically higher standard than the original workmanship or materials may be justified where the life expectancy of the site or material is increased, the new material is compatible with the old and the cultural heritage value is not diminished. New material should be identifiable.

18. RESTORATION

Restoration should be based on respect for existing material and on the logical interpretation of all available evidence, so that the place is consistent with its earlier form and meaning. It should only be carried out if the cultural heritage value of the place is recovered or revealed by the process.

The restoration process typically involves reassembly and reinstatement and may involve the removal of accretions.

19. RECONSTRUCTION

Reconstruction is distinguished from restoration by the introduction of additional materials where loss has occurred. Reconstruction may be appropriate if it is essential to the function or understanding of a place, if sufficient physical and documentary

evidence exists to minimise conjecture, and if surviving heritage values are preserved. Reconstruction should not normally constitute the majority of a place. Generalised representations of typical features or structures should be avoided.

20. ADAPTATION

The conservation of a place of cultural heritage value is usually facilitated by it serving a socially, culturally or economically useful purpose. In some cases, alterations and additions may be acceptable where they are essential to continued use, or where they are culturally desirable, or where the conservation of the place cannot otherwise be achieved. Any change, however, should be the minimum necessary and should not detract from the cultural heritage value of the place. Any additions and alterations should be compatible with original fabric but should be sufficiently distinct that they can be read as new work.

21. INTERPRETATION

Interpretation of a place may be appropriate if enhancement of public understanding is required. Relevant protocol should be complied with. Any interpretation should not compromise the values, appearance, structure or materials of a place, or intrude upon the experience of the place.

22. DEFINITIONS

For the purposes of this charter:

adaptation means modifying a place to suit it to a compatible use, involving the least possible loss of cultural heritage value

conservation means the processes of caring for a place so as to safeguard its cultural heritage value

cultural heritage value means possessing historical, archaeological, architectural, technological, aesthetic, scientific, spiritual, social, traditional or other special cultural significance, associated with human activity

maintenance means the protective care of a place

material means physical matter which is the product of human activity or has been modified by human activity

place means any land, including land covered by water, and the airspace forming the spatial context to such land, including any landscape, traditional site or sacred place, and anything fixed to the land including any archaeological site, garden, building or structure, and any body of water, whether fresh or seawater, that forms part of the historical and cultural heritage of New Zealand

preservation means maintaining a place with as little change as possible

reassembly (anastylosis) means putting existing but dismembered parts back together

reconstruction means to build again in the original form using old or new material

reinstatement means putting components of earlier material back in position

repair means making good decayed or damaged material

restoration means returning a place as nearly as possible to a known earlier state by reassembly, reinstatement and/or the removal of extraneous additions

stabilisation means the arrest of the processes of decay

structure means any building, equipment, device or other facility made by people and which is fixed to the land

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