

“WORKING FOR THE RIVER WILL LIFT THE HEALTH OF THE PEOPLE”

Te Roopu Taiao o Utaura

2017



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Mihimihi

Whakarongorua te maunga
Utakura te awa
Ōmāpere te roto
Utatewhanga te raorao
Tauratumarū te tangata
Te Popoto te hapū
Mataki te tapu
Ngātokimatawhaorua te waka
Hokianga Whakapau Karakia te moana

E ngā reo, e ngā mana, e rau rangatira mā, ngā manuhiri tūārangi, e ngā hau e whā, e ngā rōpū i tautoko nei i Te Roopu Taiao o Utakura i tēnei kaupapa, tae atu ki ngā kaitiaki o te taiao o Utakura mā uta ki tai.

Tēnā koutou i tā koutou tautoko, i tā koutou haere mai ki waenganui i a mātou i roto o Utakura ki te whakawhiti whakaaro, ki te wānanga kia mahi tahi tātou i te whakaaro kotahi.

Kāhore mātou e wareware ki a koutou i tā koutou mahi i te roto o Ōmāpere, tae atu ki ngā e awa e rere atu nei i roto o Utakura, tae atu ki te wahapū o Hokianga. Mei kore ake koutou e tautoko ana te kaupapa, kua kore tēnei kaupapa e ea. Ka rere ngā mihi ki a koutou. Ka noho koutou i roto i tēnei whānau o Utakura mō ake tonu atu. E ngā whanaunga, e ngā hapū i roto o Hokianga, he mihi nui ki a koutou i tō manaaki i te kaupapa o Te Roopu Taiao O Utakura.

Ki a koutou kua wheturangi ki te ao wairua, ki a koutou e ngā whaea, Mihi Anihana rātou ko Ngārimu Tahere me te matua, Te Oti Joyce, okioki atu rā. Kua pōhara te kaupapa nei i tō koutou ngarotanga atu.

E mihi kau atu ki te matua, te rangatira, te whanaunga, te kaikōrero o Te Roopu Taiao o Utakura, ko Remana Henwood i tōnā awhi pūmau. He tangata pono koe ki te tiaki i ngā wai e rere ana ki te roto Ōmāpere, ki ngā wai e rere atu ki waho ki Utakura, ki Hokianga Nui-a-Kupe – hei oranga taiao mō ngā uri kei te heke mai nei.

Ko koe te tangata i poipoi i a mātou ki te mahi tahi ki ō mātou whanaunga o Utakura, ngā tāngata whai, te kāwanatanga, me ngā kura e rua – Hōreke me te Kāreti o Te Taitokerau, ara, ko Northland College. I tēnei wā, ka hoea te waka kotahi. Nāu te mahi tiki kakano, te marama pai ki te whakatō kakano i tipu mai ki roto i a mātou, kia puawai, kia ora pai ngā hua. Kua whakatō ā Puawai, kua whakatō hoki a Māramatanga, a Mātauranga o tō tātou pūtaiao.

Ko Remana he tangata rangimārie ki te whānau, ki te hapū, ki te iwi. Kua pā atu te māuiuitanga ki tō tinana, engari e tū kaha koe ki te kaupapa i te ao i te pō. E mohio mātou ki ō hiahia mō tō mātou rōpū ki te kapinga o Kanohi - Ko ngā taero e ara mai, ka hīkoi tonu mātou ko te kaupapa nei. Nō reira e te matua, e te whanaunga, e te karangamaha, moe mai rā koe i roto te whare tūturu mō tātou te tangata i roto i te ringa o tō tātou ariki. E kore koe e wareware i a mātou.

To our kuia and koroua of the Utaura Valley who willingly shared their stories and experiences; the land owners along the Utaura River who supported our kaupapa and provided access to the waterways on their properties; the Health Research Council of New Zealand who provided Ngā Kanohi Kitea funding for the research – we thank you all for your input. It has been a valuable learning experience for the rōpū, the community and all involved.

To our whole team that worked with us on the project: Tim McCreanor, Helen Moewaka Barnes (Whāriki research group, Massey University) for helping with research and evaluation that brought together the health of the people and health of the land, Abdul Nishar for bringing GIS technology to the community; Erica Williams, Wakaiti Dalton (Te Kūwaha, NIWA) and Jacques Boubée (NIWA) for teaching us about the life in our waterways; Tahu Kukutai (Waikato University) for exciting us about demographics; Kiri Morgan for helping rōpū members with computer skills; Lloyd Latimer (Eyelight Video Productions) for sharing his film-making skills and recording our stories and mahi - kāhore tēnei puna e mimiti

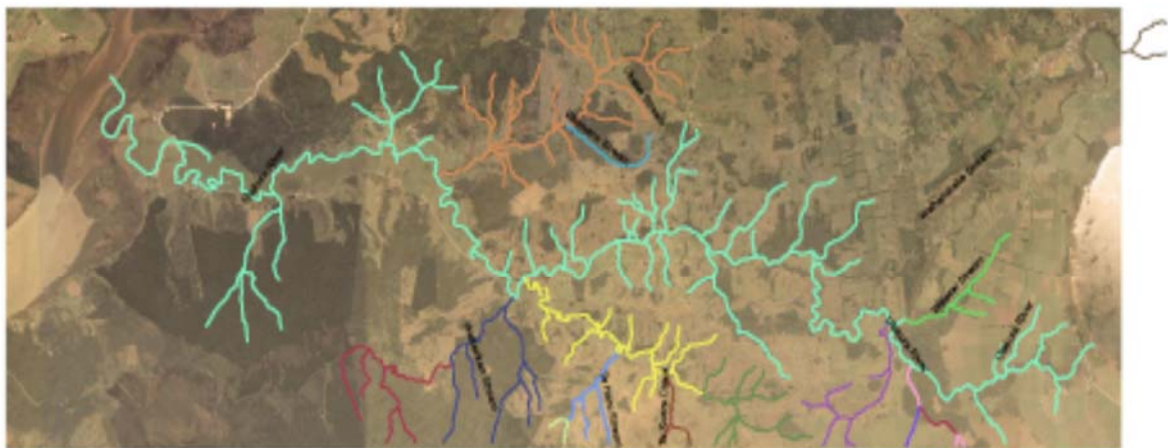
Nō reira, tēnā koutou, tēnā koutou, tēnā koutou katoa.

Nā Te Roopu Taiao o Utaura

Hine Tohu, Jim Pene, Iri Morgan, Kiri Rihari, Aunty Amiria Morgan, Mike Zachan, Anahera Eruera, Myrtle Sanson, Vivienne Selwyn, Wendy Henwood.

Introduction

The Uakura Valley is linked to three waterways of great significance – Lake Ōmāpere, the Uakura River and the Hokianga Harbour. Their waters are interconnected; their qualities affect each other. Of particular importance is the Uakura River; it is the spiritual conduit that connects Hokianga (in the west) to Taumārere (in the east). While Te Popoto has kaitiakitanga over the Uakura River and the lake outlet, the iwi and hapū of Ngāpuhi nui tonu also have responsibilities.



Legend	
Rivers	
River_Name	
—	Mangatawhiri Stream
—	Ngakauwai Stream
—	Okai Stream
—	Ti Hara Stream
—	Ti Hara Creek
—	Ti Waimaunga Stream
—	Uakura River
—	Waiere Stream
—	Waihiwaka Stream
—	Waihanga Stream
—	Waihariri Stream
—	Waimahe Stream
—	Waimahutahuta Stream
—	Waiwāpū Stream
—	Waiotakana Stream

The Uakura River Mainstream and Tributaries

False Centre Projection
Central Meridian 175.00

The significance of the Uakura River was recorded in a 1929 Native Land Court hearing that dealt with Māori rights and ownership of Lake Ōmāpere. Evidence given highlighted the interconnectedness of the land, the water and the people. (White, 1998, p. 210).

The Natives claim the fish, and also the 'mana' of the lake, and also the edges of the lake. The Natives claim the water of the lake, and also the land under the lake. (Wi Hongi Ripi, 1929, p.8)

Up until the 1980s, the Uakura River was the life-blood of Uakura Valley activities. The health of Lake Ōmāpere has a direct effect on the health of the Uakura River, the sole outlet of the shallow 1200-hectare lake. Since that time, however, Lake Ōmāpere has been in a state of

environmental collapse from cycles of blue green algal blooms. Although a number of factors are linked with the collapse of the lake, the key contributors are nutrient-rich farm run-off, *Egeria Densa* (Oxygen weed), farming practices (fertilisers, stocking rates), animal waste, overfishing, pest plant and animal species, and the removal of the buffer zone between the lake and farm activity.

Whānau who had lived beside the Utaura River for more than 30 years described it this way:

I moved to Paremata in 1978 and the Utaura River meanders past Paremata and through the mangroves to join the Waihou River in the upper Hokianga Harbour. We were able to catch fish and eels into the 1980s until the lake was polluted the first time ... There have certainly been changes in the 30 years since I've lived here and ... [some people] don't realise the effects a polluted lake has on the Utaura River and eventually the Hokianga Harbour. [Kuia 2003]

A number of organisations tried a range of initiatives to improve the water quality including dredging the weed and introducing grass carp, but these proved ineffective and, as each summer brought further algal blooms, distress and concern in the valley grew.

Te Roopu Taiao o Utaura

This disruption of kaitiakitanga and the subsequent loss of fresh water fisheries and recreation sites has been of deep concern, compelling mana whenua to take action.

In 1999, a small Utaura mana whenua group was established in response to the declining state of the local environment, particularly the downstream affect that pollution from Lake Ōmāpere was having on whānau and hapū. Te Roopu Taiao o Utaura was subsequently formalised as a Charitable Trust in 2006; the inaugural trustees were Te Hinu Tohu, Remana Henwood, Irihapeti Morgan, Walter Morgan, Alecia Morgan Rendall, Jim Pene, and Mai Morgan.

The broad kaupapa of the group is to restore, protect and sustain the freshwater environment, mā uta ki tai, meaning catchment wide; Lake Ōmāpere, the Utaura River, tributaries, wetlands, estuarine, tidal, and whenua/ngahere environments. It is acknowledged that the health of the people and the health of the whenua (including the wai) are intertwined; however a better understanding of the complex, multi-levelled effects of poor water quality was needed.

Te Roopu Taiao O Utaura received Ngā Kanohi Kitea funding from the Health Research Council of New Zealand (HRC) to undertake an 18-month research project “*Working for the river will lift the health of the people*” (HRC reference: 10/854). The project commenced on 1 October 2010 and was completed on 31 May 2012, following a two-month extension.

The project built on a small environmental initiative funded by Te Wai Māori between 2008 and 2010 that looked at the Utaura freshwater fishery. This included the development of an Utaura Cultural Health Index and participation in the 2008 Lake Ōmāpere Tuna survey with NIWA. The research also complemented the environmental monitoring and restoration strategy developed for Lake Ōmāpere by the Project Management Group in 2005.

One of our kuia, Ngārimu Tahere, who has since passed away, expressed her hope for the research during a hīkoi along the river: “Working for the river will lift the health of our people”. She believed that the powers and qualities of the Uta-kura River directly related to the health and wellbeing of the people that live with it, on it and for it. Her words were adopted as the name for our research project.

The research

Purpose

The purpose of the research was to explore issues of water quality in the Uta-kura Valley and, in particular, its relationship with the health and wellbeing of the local people. The research programme built on a number of smaller projects and initiatives that had been undertaken by the group in previous years and also funded several focussed projects.

The specific research objectives for the HRC study were to:

1. Measure the water quality of the Uta-kura River and its tributaries.
2. Assess how the health of the river affects the health and wellbeing of the people.
3. Test selected ideas about how to improve water quality.

This report covers all of these objectives, but the focus is on a large body of qualitative interview data that tells a social history of the river and its people (Part 1). This was designed to develop understandings of the key dimensions of the relationship between the health of the Uta-kura River and the health of the community. We also provide summaries of eight companion studies that made up the programme (Part 2) including a demographic study particularly relating to the social history, an overview of the water quality research by team members, four studies of species and water quality from research partner NIWA, a video and photography project, and a team project using GIS mapping.

To set the scene for the information reported, we begin by providing an overview of the approach taken and the methods used.

Approach

The project arose from the concerns articulated above and was energised and directed by Te Roopu Taiao o Uta-kura out of Mokouiarangi Marae at the heart of the Uta-kura Valley. It was therefore important that the local Uta-kura community drove the research project and had opportunities to be part of the study team, by increasing knowledge/understanding of water quality and its effects on people, and by strengthening local kaitiakitanga.

A conceptual framework was developed around ‘hauora tangata, hauora whenua’; the interaction and relationship between people and the eco-system, and their effect on one another. A programme logic model arose from ideas discussed during an initial planning hui with haukāinga, the research team and the advisory group. The model outlined the expected

achievements of the research, pointed to the sorts of activities required in order to produce the results, and helped to explain and clarify roles.

Developing relationships and building a team

A crucial component from the outset of the research was to bring together a team of people who could augment the skills and expertise of the rōpū and add value to the research. In addition to whānau and local contacts, we enlisted the help of Whāriki Research Group of Massey University (Helen Moewaka Barnes, Tim McCreanor), NIWA - in particular members of Te Kūwaha (Erica Williams, Jacques Boubee, Wakaiti Dalton), a GIS researcher (Abdul Nishar), and the National Institute for Demographic and Economic Analysis at Waikato University (Tahu Kukutai). The Northland Regional Council, who had worked on the Lake Ōmāpere Strategy for some time as part of the Lake Ōmāpere Project Management Group, provided access to existing water quality data and advice in relation to the strategy.

The initial research planning hui involved the team spending a weekend together at Mokonuiarangi Marae. It was a fundamental part of the relationship building process and set the project on a solid foundation. The most important outcome of the hui was the whakawhanaungatanga, understanding the team's skill-mix, identifying principles that would guide the mahi, and seeing where everyone fitted into the research. Informal hui occurred throughout the project, building on this firm foundation to address research issues as they arose, with more formal gatherings to present component reports and the research as a whole.

Skills development and capacity building

Another important aspect of the research was building community research capability and capacity. The initial focus was on upskilling and mentoring two community researchers to undertake interviews. This involved introducing them to the basic elements of community research, research methods, programme logic, qualitative interviewing techniques, aural recording processes and data analysis.

NIWA and Te Kūwaha facilitated a five-day practical workshop tailored to the needs of the research. It included species identification, water quality monitoring tools (Stream Health Monitoring and Assessment Kit - SHMAK) and specie monitoring using set nets (fyke and G-minnow) and electric fishing techniques. The use of IT equipment, and video film and editing skills were also strengthened.

In November 2008, Ngāpuhi Fisheries Ltd commissioned Te Wai Māori-funded Tuna Population survey of Lake Ōmāpere and the Utakura River. Te Roopu Taiao o Utakura participated alongside the Lake Ōmāpere Trust, the Ngāpuhi Rūnanga and NIWA. In preparation for the survey a two-day training workshop, *Tuna in Te Tai Tokerau*, was held (29 – 30th November 2007).

Engaging with local taitamariki was also an important aspect of capacity building. In March 2012 as part of the research project, we held a taitamariki noho taiao with Hōreke Primary School at Rāhiri marae. The 23 Year 1-6 students and their whānau attended the 2-day practical programme to raise awareness about the taiao and to learn about tuna and water monitoring in the river. It created huge interest from the taitamariki and the school who plan to build on this, and we agreed to work with the school to make it an annual fixture. The event was followed up a few months later with a visit to the school to present and discuss some

resources and to give each student a harakeke from the project's nursery at nearby Te Weranga to plant at the school as part of their native planting project.

Methods

Multiple methods were used to obtain qualitative and quantitative data about water quality and its relationship with the people. Different sub-teams among the researchers took responsibility for each domain of interest and reported the resulting projects separately. Ethics approval for the research (NTX/10/EXP/165) was received on 16th September 2010 from the Northern X Regional Health and Disabilities Ethics Committee.

Archival material was accessed from Te Roopu Taiao O Uta-kura records, Papatupu records, Māori Land Court minutes, historical census data, local histories, the Northland Regional Council, and the National Institute of Water and Atmospheric Research (NIWA).

The social history project was a qualitative, interview-based exploration of the knowledge and insights of local people and their relationships with the river and associated waterways. The interview schedule was designed to guide open-ended, participant-led discussions focusing on social and local histories. Twenty-one key informant interviews were carried out with people who lived in the Uta-kura catchment area or had done so in the past. Participants were twelve women and nine men ranging from 17 to 88 years. They were selected to contribute a variety of experiences and perceptions about the people, the environment and places of significance.

The research, including the consent process, was explained prior to the interview and participants were given an information sheet and consent form. Typically, interviews took between one and two hours, and were recorded and then transcribed. A copy of the transcription was given to each participant. Analysis of the interview data was undertaken using a thematic approach (Braun & Clarke, 2006) that highlighted the common patterns in the data.

This qualitative work was complemented by the companion studies, in particular an exploration of the population changes of the Uta-kura Valley led by Tahu Kukutai using historical and contemporary demographic data using standard methods from demography. The following section provides a summary of this study as context for the qualitative work (also see Uta-kura mā uta ki tai: A case study of population, people and place p72 and Appendix 2).

PART 1 – WHĀNAU KŌRERO; a social history of Utakura

Before proceeding with the social history of the river and the valley, we felt it was helpful to provide a brief summary of the demographic history as outlined by Tahu's work (see Appendix 2). This provides a strong context and support for the insights gained through the whānau interview narratives that are the primary focus of this publication.

Demography

This summary provides an overview of the changing demography of *Utakura mā uta ki tai* within the broader context of the structural and temporal transformations that occurred in the area over the last 175 years. Statistical data were drawn from the best available records since population measurements began in 1874. The narrative that unfolds is one of decline, recovery, rupture, transformation, but ultimately, of demographic resilience.

The research documents the demographic history of the Utakura Valley, based on a 30 km catchment area bounded by the Utakura River which runs westward from Lake Ōmāpere to the Waihou River, which, like the rest of the Hokianga, has been subject to tremendous change over the last century. Land loss, environmental degradation, and economic restructuring affected the wellbeing of mana whenua and their sites of significance, including waterways such as the Utakura River and Lake Ōmāpere.

1874 - 1901: Negative impacts of colonisation. The earliest population estimate for Utakura Valley comes from the 1874 census. It counted 119 Ngāpuhi men, women and children from the hapū of Waitaha with a few more from Popoto and Honihoni. The Utakura count halved between 1874, and the 1878 and 1881 censuses; although the population is likely to have declined, early data are fraught with problems and should be treated as best guesses only.

The size of the overall Hokianga (the larger region within which the Utakura Valley sits) Māori population steadily declined from 2,678 in 1874, to a low of 1,839 in 1896 a fall of nearly one third. Measles, whooping cough, typhoid, malarial fever and respiratory diseases were key causes of mortality. High Māori mortality, combined with the rapid growth of the migrant Pākehā population, reduced the Māori population share in Hokianga from a reported 86 per cent in 1878 to 57 per cent by 1901.

1901 - 1945: Demographic recovery. After reaching a low in 1896, the Māori population in Hokianga County began to recover. Though their health and living standards were marginal compared with their Pākehā neighbours, material conditions gradually improved. Official reports noted improvements in fertility, health and housing, and commended the work of the Māori Councils. The population continued to grow, despite the devastating impact of the 1918 influenza pandemic.

1945 - 1981: 'Emptying out' Hokianga. Nationally, the post-war period was one of massive demographic change for Māori. Mortality and life expectancy improved significantly, and

growth rates reached historically recorded high levels. Between 1956 and 1966, the number of Māori nationally grew at an average rate of about 3.9 per cent each year.

Set against national growth rates the depopulation of the Hokianga via migration was dramatic; the Māori population there declined at an average rate of 5.5 per cent per year between 1956 and 1965 (from 4,184 to 2,357). The 1961 census recorded 88 people living in the Utakura Valley, of whom 42 were Māori. The 1981 census recorded a population of 61, with no separate Māori figures provided.

1981 - 2013: Region transformed. By the late 1980s the major transformations in the population and economy of the Far North, and the Utakura catchment area, had played out. Changes since then have been much smaller in magnitude. Between 1996 and 2013 the Māori population in the broad Hokianga catchment area declined by five per cent (from 5,169 to 4,932 people).

Overall. The relationship between the health of the environment and the health of the people is evident throughout this study. From the mid to late 19th century, the alienation of land and the deleterious effects of colonisation had lasting negative impacts on population health. Nevertheless, Māori continued to seek education, foster employment opportunities, maintain cultivations – although with a shift from communal to individual-based modes – and engage in subsistence farming.

The early to mid-20th century offered some hope of recovery but the limited opportunities to develop farming beyond very small scales, and the ongoing engagement with forestry, rendered Hokianga Māori vulnerable to external changes such as industry restructuring and economic downturns. The urban migration had a dramatic impact on Māori communities in the Hokianga. At a time when the Māori population generally was experiencing high growth rates, the Hokianga Māori population was in decline. Economically and demographically, the effects of these losses continue to be felt.

Northland and, by extension, the Hokianga are often described in mainstream media and research as economically disadvantaged areas, with little appreciation of how current conditions were produced by major shifts that occurred in the past, driven by forces beyond the control of communities, whānau, hapū and iwi.

The area has a rich cultural legacy that remains to this day; however this is rarely acknowledged in statistical reports. It is in the most disadvantaged areas of the broader Utakura catchment area that te reo Māori flourishes, and connections to iwi endure. Such was the historical context within which the social research that follows was carried out. We now report on data from the in-depth interviews in order to present a social history of the river and life in the valley.

Whānau Kōrero

The following eight themes capture the kōrero from whānau connected to the Utakura Valley who were interviewed as part of the project. As part of our commitment to working with the community and reflecting their values we chose to foreground their narratives through extensive use of their own words. Our analysis operates more at the level of working to provide a clear and common sense grouping of their ideas into the themes that follow.

Whānau expressed what was important to them and their ideas and experiences that related to the health and wellbeing of the people and the taiao. The key themes covered looking back on the Uakura community, hauora, health and wellbeing, water quality, tuna, other kai and species, kaitiakitanga and knowledge transfer, signs of environmental change and looking ahead.

Looking back on the Uakura community

The good old, hard old days

Whānau who were brought up in Uakura remembered times when the community was vibrant and busy. Even though they said that times were hard, for them it indicated to them that the valley was alive and well. Large families and a strong sense of whanaungatanga meant there was sufficient labour to take on the jobs in the community and to support each other with chores at home ...*families were all around the ten level ... large families were the norm back in those days ... [ref 9/5].*

Some could recall where all the houses were and who lived in them; nowadays, the scattered fruit trees are the main tangible marker of those sites.

...all the houses had fruit trees ... might be a pear tree, a[n] apple tree, a lemon tree something like that, when you see those things you know a house was there. If we see a fruit tree then we knew somebody lived there. [ref 7/10]

Kōrero from the older whānau who grew up in the 1930s provided a picture of the huge changes they experienced in their lifetime. Vivid recollections of what they described as “simple” lives were offered; their days revolving around routines of subsistence, survival and self-sufficiency within the valley. They worked together as whānau (including Pākehā), maintaining collective expectations and responsibilities.

Oh well, haere ki te mahi, haere ki te um haere ki te māra kai, haere ki te hī ika, haere ki te tiki mea, chopping wood I mean all those things ... going to gather our kai and that routine yeah, you had a time for everything, a time for everything to do things at a certain time you know ... it was survival for us, so you either did it or if you didn't do it well you didn't live, so you know it was simple ... Dad and Mum they all worked with all our whānau Uakura, Hōreke and you know so everything was done together, it was not only the Māori whānau, but like the Pākehā whānau [we] ... used to work with them as well and have gardens with them as well ... [ref 4/10]

Whānau described lives that were hard and took a lot of effort on a daily basis. The work ethic was consistently described by the older people.

...we had no power, we had to cut our own wood, we had to go to school with no shoes, we had to go to school by boat, we took our water from the creek in the bucket and everything that we needed water for we had to cart. [ref 16/4]

Despite the hardships and toil and the 'official' perception of disadvantage, whānau clearly felt they were resource-rich and content.

They had beautiful soil and they had a creek running through there, they used to make big gardens there too and everybody was well off, we all had gardens, we all had cows, we never went hungry. ... they lived off the land they were rich in their own ways ... they weren't worried about anything else. [ref 18/1]

A good and clean life ... that was what I liked about it ... it is open eh, fresh air. ... oh well been brought up this way ... [ref 7/4]

Whānau still marvelled at the physical hard work their tūpuna managed without the machinery deemed so essential nowadays. One maintained that modern tools weren't necessary or useful in the garden as they damaged the produce.

You know I was pretty hard on my kaimahi here ... They would come with pitch forks and spades and I would say "where are you going with those?" "To dig up the kai." I said "no, you bend down and you pull it out with your hands ... Get down on your knees." That is how I was raised so that you don't bruise or hurt the kai. And then after showing them they believed it eh. [ref 20/5]

Whānau chores, both indoors and outdoors, were shared amongst whānau members of all ages.

...we all had turns washing the clothes making the kai, baking cakes and that, doing preserve[s]. We used to do all our kai, preserving jams and pickles and all those things because my mother was real old fashion, had to have everything there. ... machine work, knitting and sewing ... everything you owned, really you know you did yourself, you didn't buy it. What you bought from the shop was the material ... flour, materials like this and the cotton, the needles and everything ... my father he didn't care, all he was worried about was going to work in the bush, only weekends he would come home. [ref 7/6]

...right from when we were kids we had to milk the cows. ... on the weekends we do the gardens. [ref 22/1]

Sharing and working together was so entrenched in the valley that individual ownership and some farming practices, such as fencing, were foreign. The changing practices and ways of thinking caused conflict, challenging collective ways of life in the valley.

I remember umm our Uncles talking about before they put fences up, he said it was hard case ... Pākehā introduced this thing about farming cows, milking cows ... every whānau had like 10 or 15 cows, their own cow shed but they had no fences between the land so they shared the one whenua but every time it came to milk, they'd ring the bell and the cows would come to the cow shed and my Uncle was telling about when they started putting fences up ... they reckon the men would get up [in the morning] and see ... all the fences been pulled down and they would wonder "what's going on" ... yea night time the wāhine would get up and pull the fences down because they didn't believe in fences ... to them it was a Pākehā concept and they didn't want to be part of that eh, and of course that created so much conflict ... you never heard

even said 'taku' it was always 'tātou', tātou kai, tātou kāinga, tātou you know, ā tātou tamariki ... everything was everybody's, was no personal oath on anything ... Mum was telling me even when the whare, when you move out of the whare they gave it to the one that needed it the most, so it was no such thing as your own whare it was tātou anō tātou, yeah te kaupapa tēnā o rātou mā. [ref 4/10]

Education

School, and education in general, was widely spoken about by all of the older people interviewed. Maraeroa Native School was the hub of the Utakura community, and an important part of its infrastructure until it closed in the mid-1960s. The school also served other functions with the teachers carrying out a range of tasks and the school buses carrying the mail.

The school was a post office, they had a post office there. The mail came in and you know they even had a registry office there for babies and that. [ref 7/6]

in the 1950s and 60s Maraeroa had three classrooms, generally with 80 to 100 pupils, and there were similar sized schools at nearby Hōreke and Motukiore, indicating a considerable community population at that time. Whānau were proud that they had attended Maraeroa School.

...there were lots of families there then. There were the Andersons, the Taheres, the Joyces, the Solomons, the Hekes, the Repia family, and more Solomons again and the Pōmares. The Pōmares had a big family. [ref 5/2]

Kuia interviewed had great admiration for the effort and commitment of their parents in getting them an education, and several had gone on to careers as teachers. Getting an education in some cases involved long days and a lot of effort. One kuia described her daily trek to school:

...we walked many, many miles to get to school at Motukiore Native School, [it] was in the back of Motukiore, and then we went from there to high school by row boat and ferry to Rāwene every day, and that was how we went to school ... [ref 5/1]

Teachers encouraged students with academic ability to strive for annual scholarships to attend boarding school; they were concerned that otherwise they would not fulfil their potential. One kuia described how hard it was taking up a scholarship and being away from whānau and home, but claimed she never regretted it. The boarding school experience was appreciated, and opened the eyes of one young scholar to the racism and politics of the day.

She described the education system for Māori in the 1930s as a process designed to groom Māori for domestic work - "...only get married and have children ..." - and menial tasks.

...back in those days you had to almost 'pass' from one class to the other. If you didn't pass you stayed put. ... at the time I think the general view was you couldn't educate Māori. And then there was another attitude if you educated them you'd get in trouble. And a friend said that to me once, um she said, "you know Wini, my mother always said if you educate them you'd have trouble", this is Māori. And I think you know at the time they didn't hold up much hope ah for Māori ... [ref 9/1]

Maraeroa was one of the many country schools that were closed by the Department of Education as a result of major policy shifts in the 1960s. Since that closure, Hōreke Primary has been the only school in the area. It currently caters for a roll of around 30 pupils. The two kōhanga reo established in the early 1990s are now closed.

Making a living

Up until the 1960s, whānau employment revolved around the timber trade, the railways and dairy farming.

Farming

In the 1930s the Government introduced Māori land policies that contributed to loss of land ownership and changing land practices. The amalgamation of small, multi-owner Māori land holdings to make larger more 'viable' farming units had a detrimental effect in Utakura, where tangata whenua struggled to make a living.

...in about the thirties and all these small land owners were shifted to Auckland and taken off their land so they can give their land to the farmers that were doing their dairy farming at the time, [it] was something that Sir Apirana Ngata and Whina Cooper started ... when that happened all the people drifted away from Utakura and left very few farmers on the land ... [ref 2/2]

However up until the 1960s, milking cows on the small communal home whenua blocks remained a way of life for those who stayed in the valley. Initially milked by hand and then with some basic machinery, these small dairy herds were associated with kai; they were a key source of income, provided milk for pigs and looking after them was the mahi of most taitamariki before and after school. Whānau could live off their cows and they enjoyed the level of self-sufficiency this provided.

In my time all the homes right through from Ōkaihau to Motukiore, they all had cows, some of them might only have about three or four cows and some have about ten and like our family, well it was a big family. We had about 25-30 ... That was the first thing you did in the morning was go and drive the cows in and milk them, then separate the milk for cream ... it was twice a day ... only stop milking cows for about three months out of 12 months, all the rest of the time you are milking cows and that's your life. [ref 7/3]

Making a living in the area became increasingly difficult. Māori Affairs loans became the new way of acquiring necessities such as homes, farm implements and livestock. One person explained this way:

...people that were quite lucky in the 1950s ... because they go under Māori Affairs, they get a loan, their farms are being collateral that is how some of them got tractors ... [a] few slashers and working gears. [ref 18/1]1

While some considered whānau lucky if they could get a Government loan, some blamed the system for instances of whānau getting into debt. With little profit being made from farming,

whānau struggled to service the loans; what was intended to help, actually made life more difficult. Sometimes the only solution was to move away from the area in search of paid work.

...they only umm tried to make a living out of farming, most of the farmers were tied up under the Māori Affairs redevelopment scheme ... taking out a mortgage in those early days ... they couldn't borrow money [from elsewhere] because the land was all under Māori multiple ownership ... they took on what the Māori Affairs said, had going then, to help them to develop but it didn't actually develop them because they got suppressed inside the system ... they cleared themselves out of debt, the Māori Affairs decided to give them a tractor and fertiliser and all those were actually accumulating ... weren't actually coming out of that debt ... clear it up and it goes back up again ... [ref 8/2]

...all those houses were mortgage homes ... it wasn't much advantage to the Māori personally to my way of looking at it. ... they had to pay for the mortgage on those houses with a small amount of land they had and ah, you know the farming conditions they had it wasn't easy, it was hard. I know one woman was telling me it was just as well she had a lot of children, they lived off the kids' [family] benefit because they couldn't live off the farm, paying for the mortgage of the house, it was hard ... [ref 2/3]

The dairy industry began to change significantly; new technologies and regulations were introduced requiring costly upgrades of plants and equipment, small dairy herds were no longer viable, and few local Māori had the income to participate. A push to centralisation occurred from the 1950s; local dairy factories closed and the industry became inaccessible for Utakura whānau.

...then they bought in the rules that you had to have hot water, and you had to do your milking under cover and all this sort of carry on. And I think that is what almost put the milkers out. It changed the lifestyle of people and I mean, you know, not been able to survive on what they got from the dairy factory umm, they just had to leave the area to go and find work. [ref 5/6]

In 1972, a number of land blocks were amalgamated by the Māori Land Court into the Utakura 7 Incorporation under mana whenua ownership. Many of the thousand or more shareholders involved were not happy, particularly about the process used by the Māori Land Court; however some saw it as a way of, at least, retaining ownership of their land.

...we had a big stink because of the Incorporation but look at it this way because the Crown wanted to come in to our area so we were quite happy where it ended up. [ref 18/11]

Timber trade

Many people interviewed talked about their whānau being involved in the timber industry, which thrived in Hokianga up until the 1940s and 50s. Native trees were harvested, and a mill in Hōreke employed many local whānau during that time.

My dad worked there when he was young and ah the mill went for many years when we were children. We used to run along the logs and get a whack on the legs for playing on the logs and all that sort of thing, but the whole part around there used to be full of logs and it used to go right up towards you know the Boom where my

Grandparents used to live up towards Rangīāhua ... called it the Boom in those days because you could hear the logs banging ... there used to be just thousands of logs there. [ref 11/1]

Railways

The area was once served by rail as far north as Ōkaihau and at one-time employment on the railways around the country was taken up by a number of whānau from the Utakura Valley. The line closure in 1987 brought further change to Utakura.

A lot of the men worked on the railway, I know the Soloman men particularly and of course they came [home] once a fortnight. ... the big change came when the, ah the railway workers weren't required. Ah they stopped the gangers, the railway gangers. I think that bought about a big change in Utakura. It was a period when things were shutting down and a new way of life was being born ... [ref 5/6]

The impossibility of commercial loans and Crown disinvestment in Māori development in this period accelerated migration to cities and the depopulation of the Utakura Valley.

Employment and Urbanisation

By the 1960s, major industrial changes led to the closure or restructuring of businesses employing Utakura whānau. Small businesses became less viable as larger, centralised, highly industrialised operations became the norm. The expansion of industries such as Auckland Farmers Freezing Company (AFFCO) meat works, the Bay of Islands Dairy Company and the railways occurred in the 1960s and 70s, when Māori (and particularly Pacific peoples in South Auckland) made up the bulk of the workforce. These job opportunities increased the rate of urbanisation, workers concentrating around 'new' settlements such as Moerewa. Unless Māori were willing and able to commute from their homes, they moved. By the 1980s major downsizing of Moerewa freezing works meant, for some, there was little option but to move away for employment; many did not return.

...when they closed down Moerewa [meat works] eh, a lot of them were wanting to move away to Auckland you know, yes where they can find some work. ... no work around here and they started going away from milking and that sort of stuff eh. [ref 12/8]

In the contemporary setting, whānau experience very different lifestyles from their parents or grandparents and the accessibility of the cities has played a large part in this change. The benefits of urbanisation were much debated. Some saw it as progress and a way to get ahead; Māori who got jobs in cities and towns were able to purchase homes and enjoy the experiences that the city had to offer. Others expressed sadness about the impact that moving away from the area for work had on the generations to follow. Whānau left behind their supports, their lands and their knowledge base. With no experience of the awa and/or whenua, they lost the ability to pass knowledge on to the next generations. The economic

environment and changing lifestyles meant that sometimes whānau were too busy to come home, leading to further loss of contact with their whenua and hapū.

...our generation even though we grew up with my grandparents and that and we did move to the cities, and of course you know some of my children ... they haven't been able to um get to these things that I grew up with ... just recently I have started taking my mokopunas back to the whenua and just let them know, let them live, let them be on it. [ref 13/8]

Some whānau who moved away for work said they did not realise until later in life how this would impact on their culture and thinking.

...[I] went to Auckland and lived there for a very long time. I brought my kids up there, then decided in 2003 that I was going to come home, but then it was coming back and picking up the threads that you didn't quite grasp before I left so it was our reo, our tikanga, our kawa, and most importantly I suppose is because you are around a lot of people all the time it is that respect thing, where in Auckland and most of us would agree, you go to your job, you go home, you take your kids to sports on the weekend, and that is really your lifestyle. [ref 16/4]

Moving away from the valley for work also meant whānau missed out on learning about things that residents took for granted, such as growing gardens to provide kai.

Oh you know that is what I can't understand about now. ... the houses have got a little bit of land but they don't make gardens, and it is a simple thing, it ain't hard work. The other thing that you need is a shovel or a spade, couple of other things even rakes and that. ... your tools to make a garden, to plant. ... now you ask them "have you got a rake", and they say, "what's that, what is that used for?" [ref 7/1]

With no employment opportunities in the area the trend of working age whānau leaving Utakura continued. They appear to be leaving at a greater rate than returning and this was a worry for the sustainability of the community.

Well it is definitely in their hearts to [garden] aye but again they are not able to sustain them ... because the community is dominated by the elderly. ... other families weren't coming back to replenish the people's stock, so four years ago there was say 45 people living here in Motukiore, now there is like 20 something. [ref 3/4]

Community infrastructure and amenities

Today the Utakura community has few public amenities and little infrastructure to support its activities. When people recalled what the community 'used to be like' it was a different story; five functioning marae, a church, a school, a launch service, a general store and postal services. Only the marae and the church remain.

Utakura Marae played an important role, not only in maintaining and developing the kawa, tikanga and reo of ngā hapū, but also as providers of community amenities. Their structure and systems ensured things got done. They were busy places that hosted, in addition to

tangihanga and whānau celebrations, regular events such as public meetings, dances and sports days. The marae still bring whānau from near and far together throughout the year.

Sadly we are dependent on hui at the marae to come together and then again look how close we all live to each other. You know ... [they're] like nearly ten kilometres away at the end of the road, and so we hardly see them. [ref 3/3]

The skill with which whānau ran the marae was understood as a real strength in the community; tribal committees managed a local marae justice system, and one person described their women's committee as:

...pretty much for the power house for Mokonui ... they pretty much all ran Mokonuiarangi. [ref 13/2]

The facilities were basic, and 'making do' with readily available resources, as well as thinking innovatively always accomplished what was needed. Systems were developed to manage without power and telephones.

And in the old days when they had a hui they would fire this shot gun and then everybody knew that somebody was dead. ... they go straight to their gardens and they start digging to bring kai to the hui. [ref 22/2]

...we used to have hay for mattresses ... the power came to Utakura in around the late 60s ... our lights used to be ... you know in a tin and hinu and you put the waro in the tin with the hinu and the waro absorbs the hinu and then you light the waro, yeah and that became like the wick ... [ref 4/8]

Church was another integral part of life in the valley; a key gathering place for whānau. All occasions involved some form of service from one of several religions practised in Utakura.

Sunday was the day of God ... back then everybody did go to church, families did go to church, it was a way of gathering the community. I think that kept all the community active. [ref 6/5]

Transportation

Transportation changed significantly over time. Horses and row-boats used to be the main modes of transport, with the Hokianga harbour considered the highway; the roadway that connected whānau and events in the region. It moved people to and from the hospital in Rāwene, social functions, sports, and to other marae on the harbour. Whānau took for granted the use of row-boats to reach destinations.

...she [my mother] grew up in Motukaraka [north Hokianga] and whenever there was a tangi or an event at Motukaraka she would row her boat down there ... [ref 5/5]

They used to have ah, a ferry coming to the wharf, it used to come from Rāwene it stops at Kohukohu and it comes up here in the mornings. Everything used to be done on the water - then people had their own little dinghies ... even travelling around the

other side of the harbour to go and visit people. Oh I used to row all around Kohukohu and down to the Narrows [Rangiora] ... Oh it was no trouble! [ref 7/7]

One person explained, cars were not suitable for transporting large families that were the norm, meaning that even those whānau who owned them did not travel far from home.

...we came from a whānau with like 18 children we didn't go anywhere, so that was it, we stayed home and mahi, kei te mahi, when we did go away it was on the boat, that was our transport ... once every 6 months we got to have a turn, got to go to the shop at Hōreke on the boat. I didn't really get to Lake Ōmāpere ... [ref 4/8]

Horses had many functions and generally equipped whānau for life in the valley. They were used to work the land and gardens, cart firewood, cart water from the river, and to travel to the shops, school and social activities. They were also a means of keeping connected when telephones were scarce. They were remembered fondly and associated with both fun and hard work.

Every family I think had horses and um, and then of course the Fergie [tractor] era came into being. There was a few Fergies but not many, you know they were sort of used for transport as well. [ref 5/13]

Social life

All the older people interviewed talked about sport as an important part of the community in their youth; a feature that was also common in small, neighboring rural communities. Basketball (netball), rugby and tennis were particularly popular. Some whānau members became regional representatives and one participated in a national netball team. There was also an annual boat regatta, a rugby league club, a hunting club, and duck shooting. Tennis was so popular that there were several courts around the community, and at Maraeroa what began as a clay court was upgraded with seal in 1955. Tennis courts provided a place to socialise in the summer months, while those who were serious sometimes travelled to other communities to play.

We clubbed together and made a tennis court out of a hillside, and yeah we invited all the other teams so when it was our turn to be host team, they would come to our hillside tennis and if it rained well, we'll just have a big lunch and go home. ... we used to come up and play Papakura, that was where Betty's house is and Matariki, ah Te Ripi up below Mokonui [up from the pool] there was a tennis court there somewhere, and up at Nika Andersons and Mai Anderson and all those Aunty Pita's family. [ref 5/10]

All sports games were competitive and were the mainstay of local social life at the time. Visiting teams came from throughout the region; challenges creating an element of excitement in the community. The annual sports day at Paremata was a big community event recalled with fondness.

...the sports grounds in Paremata, 'cause that was ahh, beautiful flat race course. They had race horses. ... there was a lot going on in Paremata at that time ... Ka haere mātou ki te sporty Paremata ... [ref 17/7]

The gymkhana held on the flats below Meheke was another popular summer event, drawing crowds from the horse-loving community...*people used to come up and spend the day to challenge for horsemanship ... [ref 18/31]*

Being with family (especially the cousins during the holidays), making music, playing in the bush, and walking everywhere, were described by whānau as good times. Fundraising basket socials were also a popular community social event.

Motukiore used to come up and bring their baskets, they had beautiful baskets. ... sometimes you can fetch up to about 60 to 70 bucks all that money is going for fundraising. They would make anything; a roast dinner you put it in or bread or something like that, a bottle of wine and you take it down. ... Utakura has had a lot of fun, we were not squeaky clean but we didn't exactly hurt anybody except that we got our ears screwed in the morning! [ref 18/26]

Young people did a lot of socialising at the river, where they would spend all day swimming and playing during the summer. When the Maraeroa School closed it was used by a rangatahi group as a place to meet.

...they call it Te Rangatahi now but it was the old club rooms and we had a table tennis table there um, that was our socialising point, the other one was down the creek. In the summer it was always swimming. [ref 13/4]

The local hotel at Hōreke has always been a gathering place for whānau. The movies at Hōreke were a feature of social life in the valley during the 1950s and 60s, with people coming on horseback from the neighbouring communities of Waihou, Rangīāhua and Motukiore. It was commonplace to see 50 horses patiently waiting until the show ended. Thinking about the pictures sparked many vivid memories; the cost of the ticket (and how to get around not having ticket money), being given pocket money for refreshments at half-time, and having to milk the cows first. Riding with your mates and whānau to and from the pictures was considered part of the fun.

...sometimes when we went to the pictures we got no money, we take the horse up to the window and watch it from the window until the fella from the pictures see us and kick us out and of course the other kids giving us hell because we're trying to watch the pictures on the horse through the window. We wanted to watch the pictures but we haven't got any money it was hard case! [ref 22/5]

Kapa haka was a popular activity for quite a number of taitamariki. One tupuna who had a big influence as a rugby and netball coach was also singled out for much of the credit for kapa haka. He was remembered for his strictness and expectation of high standards.

Karani Nika ... I remember him shaking his team up for the football, basketball and the haka. He had haka he was the man for those ... he has always got things going for Utakura ... they come back with the trophies and all his girls were always dressed in their ... piupiu and the boys ... he would tell us to get in line, he would come with his tokotoko "haere mai koutou e tū tika ana pēnei" and away he goes with his tokotoko ... [ref 18/4]

As whānau moved away for work, only returning sporadically, sports and community events were no longer the social focal point that they once were.

Summary

- Utakura was once a vibrant, busy and populated community.
- Lifestyles were physically hard and based around whanaungatanga, but recalled as rich and fulfilling.
- Utakura Marae not only upheld the kawa, tikanga and reo of ngā hapū, they were important community facilities, bringing whānau together throughout the year.
- The Maraeroa Native School was an important part of the local infrastructure until it was closed in the mid-1960s.
- Dairy farming was the main source of income for whānau, while some worked in the local timber industry and others on the nearby railways.
- Concepts of ownership, land title and loans were at odds with Māori collective understandings.
- The Hokianga Harbour was the highway that connected people and events in the region.
- Horses were a necessary part of life; they provided transport, were used to work the land, and cart firewood and water.
- Religion was an integral part of community life.
- Socialising revolved around sports, and the movies at Hōreke were popular during the 1950s and 60s.
- The river was a key place for taitamariki and whānau to socialise during the summer,
- Many whānau moved away for work from the 1960s as a result of major industrial change throughout the country; the community became vulnerable to changes in law, policy, and large and powerful businesses.
- Urbanisation impacted on culture and knowledge later in life.
- Today, there are few public amenities and little infrastructure to support the community.
- Older whānau experienced huge changes in their lifetime.

Hauora, health and wellbeing

Health and hauora were interpreted in a range of ways but were about much more than the absence of disease. The term 'hauora' was unfamiliar and seen as a modern-day word by some people.

... 'hauora' is very interesting to me because it's something new, it's something I've never heard of before ... [ref 2/5]

Spiritual connections

Whānau had strong spiritual connections to the environment. For some people interviewed, the river and other features of the environment were powerful, spiritual entities requiring respectful interaction. For others, this was expressed in warm memories of wellness and connections to the people, places and events of Uta-kura mai rāno, that had shaped the Uta-kura Valley:

... you can feel the peace, the wairua in the area, it is a belonging you are a part of the whenua you are a part of the water, it is like the water that runs through the rivers and the valleys is the water that runs through your tinana. [ref 15/8]

... it [the river] was a place whai oranga mō te tinana me tō wairua mō te tangata nē, was a place for the spiritual wellbeing ... Pai mō te wairua āe ... [ref 4/7]

It [Uta-kura has] been a provider for me, it's given me shelter aye, it's given me aroha, it's given me whakaaro, it has given me the mana I need to keep my family going. It makes me feel like I am still sitting with my tūpuna, I feel them all the time. But Uta-kura has given me generally what I need, it's providing in its own ways, providing me with what I really need to be here. [ref 20/1]

Land losses and degradation were inextricably entwined with the taiao and identified as affecting people's wellbeing. Not only was there burden and stress involved in the specifics of the grievance and trying to do what was right for future generations, but also in the long and arduous process to do something about it.

... mentally yes, it does affect my mental health. Āe, it's your hinengaro that's suffering and the mamae of your, what they call grievances and um and you trying to sort it out to benefit your mokopuna and the generations after you. [ref 2/5]

Health and wellbeing were associated with the hinengaro; what made people happy, care for each other, able to function as whānau and marae, get along with each other communally, feel at peace and have fun together. There was a strong sense of satisfaction and comfort in belonging to a 'place' that would remain regardless of the people "Uta-kura will stay there and we will all be gone, and it will still be there." [ref 18/32]

A special feeling came from community connections and positive activity.

...it makes you feel happy mentally and physically ... we see good things happening it makes you happy. Like you fellas joining in in to the environment and trying to fix up all the wrongs that's happened, and that makes me happy. [ref 2/4]

One kuia said she drew strength from the river; she talked to it, she found that it gave her signs and reflected what was going on.

That river has a sign every time we go back down that way we look across "what is the day going to be like?" and we look "oh yeah she is calm today", and if we go again and it is rough then "oh she isn't very happy that is very choppy waves coming up little white caps she is not happy she is quite rough and she starts churning up too". She always tells us that she is not happy, somebody is making her angry. But it is a long thing for these scientists today to really understand what nature is all about. [ref 18/5]

Older whānau in particular were clear about the aspects of general lifestyles that, in the past, contributed to good health. Survival depended on hard and physically active lifestyles and a high level of fitness and stamina; to gather wood to cook and provide heat, to garden, fish, gather kai, hunt, get up early and milk cows and work in the bush in the timber milling days. It was regular physical work and it kept people fit physically and mentally. Other aspects of health promoting lifestyles were the emphasis on team sports (summer and winter), and walking, rowing and horse riding as the main mode of transport around the community "...everybody had a rowing boat ... kept them fit ..." [ref 5/10]

Well just because we had to milk cows and build gardens we call it a hard life, chopping wood that was a hard life but when you sit back and look at it well it wasn't hard really it was an exercise. [ref 18/31]

...milk cows by hand and all those things physical aye ... working the garden from daylight to dark. ... they ate hard but they also worked hard to burn all the, but now we eat hard and don't work hard, now we eat hard and sleep! [ref 8/8]

Complementing physically active lifestyles was the fact that papakāinga were located on the hills and required exercise to move to and from the homes. The relocation to the flat areas resulted not only in less exercise to get places, but also in a raft of new ailments associated with damp living conditions.

...we also got to remember that was a time when they moved from the hills and they came back to the flat areas [when the roads were built] so there was a lot people who lived in the very damp areas so you had a lot of maremare as well ... [ref 4/8]

Fresh seasonal kai was a key factor in health and the impact of dietary change coupled with less physical activity were commonly regarded as problematic in today's lifestyles. While older whānau recalled their lifestyle growing up as being healthy, they acknowledged that it didn't necessarily equate to extended life-span.

...he died young aye, he wasn't even 60 and he died. And the people at that time they had a working life, a hard life and oh well it didn't last long. [7/1]

Smoking wasn't something new to whānau in Utakura. One participant had a vivid memory of the old people smoking tobacco.

I can remember those old ladies still smoking out of a corn cob pipe right up to the old age of 80 ... smoking tobacco that's that Dark Tasmans, the long leaves ... They used to come in long leaves and they used to sit there with their knives and cut 'em up. They would roll them around in their hand and then put it in their pipe ... [ref 8/8]

Rongoā and health practices

When older people looked back at their routine health practices they noted some major changes especially around birthing and the use of rongoā.

They all had their babies at home, our mother and every other mother. I was born on the 14th of April in 1932 and there was no hospital at that time, our mother had all her children in her back yard ... [ref 5/5]

Whānau moved away from traditional healing, rongoā and home remedies, and began to rely on hospital and General Practitioner services for health and medication. The use of rongoā involved tikanga and mātauranga that was generally handed down to particular whānau members. Some regretted that much of the knowledge around rongoā had been lost and in some cases no longer practised.

...parents knew how to make medicine from the barks which we never, we didn't manage to catch that, to grab that information. ... it was trial and error with a lot of them and us too, but our mother well she ... she was onto it and she kept that gift. ... and we knew which plants and things were that were good for our bodies, they're not there anymore. [ref 5/9]

...in the 50s people were healthy you know ... if they had sicknesses then they had their medicines. That's when people knew what those rongoā in the bush were and what they were for, but because we didn't listen to what our old people were teaching us then over the years we've lost it, and now we only seem to guess ... we don't have the mātauranga about the rongoā ... nobody was listening ... they used tūpākihi, kumarahou ... but there were others ... [ref 8/7]

There was some concern about the trend to commercialise rongoā products.

...they are selling our things over in Australia which they shouldn't they are making money out of it, they are making a mockery out of it, that is why we are dying quicker than we should. ... our medicine is for us, use it wrongly and you will die from it ... [ref 18/2]

Summary

- The spiritual connections between the people and the environment was strong.
- Health and wellbeing were associated with hinengaro, wairua and tinana of individuals, whānau and the environment; feeling happy, caring for each other, functioning as a whānau and marae, feeling at peace, having fun, the status of the environment, and being involved with activities.
- Older people said that their hard and physically active lifestyles needed for survival relied on a high level of fitness and stamina and contributed to their health.
- Everything they did involved exercise; walking, riding or rowing to get to places, gardening, gathering kai, fishing and milking cows.
- Fresh seasonal kai used to be abundant. Dietary changes resulted from lifestyle changes – less exercise involved in obtaining food and less home-grown food.
- There were differing views on longevity; perceptions that lifestyles used to be healthier did not necessarily equate to living longer.
- Much knowledge around rongoā, home remedies and traditional healing had been lost or no longer practised; whānau had become reliant on hospital and GP services.
- 'Hauora' was seen as a modern-day term that was interpreted in a variety of ways.

Water quality

Mā uta ki tai: the relationship between the lake, river, harbour and the people

Whānau very much expressed a “mā uta ki tai” way of thinking about their environment. Lake Ōmāpere was constantly referred to in relation to Utakura, as was the Hokianga Harbour. Lake Ōmāpere was regarded as a taonga of importance to whānau and the iwi. Whakapapa connections between the roto, the awa, the wahapū and tangata whenua were strong and resources within the catchment were shared.

...so ki ahau he tino taonga tēnā mai i te roto rere ki te awa ki te awa tapu o Hokianga, so I mean you can't separate it aye, you can't separate that lake, cause that's the beginning the source of [where] that waiora comes from ... Āe, Te Pū o Te Wheke, that's come from Ōmāpere ka rere ki te awa o Hokianga, so we all link, our whakapapa is not only a whakapapa through tūpuna it's a whakapapa through our awa, and our roto and the connections ... I think it's about tangata ... [ref 4/11]

Although some whānau rarely went to Lake Ōmāpere they still understood the whakapapa links and the role it played in the water quality of the Utakura River. They knew that the lake had to be in good order for the river to be in good order. Old stories about the lake had been passed down to whānau members that were interviewed, and others recalled their own stories.

One that was handed down from a grandmother who lived at the lake, to her granddaughter, carried significant information about the lake and associated kaitiaki practices.

...she [my mother] was 6 years old and she was staying with her granny and [her grandfather] says to her "haere mai e moko kua haere māua ki te tiki puna matau" so they get on the waka and they got a long thing, like a stick, a long fine thing with a hook on the end, and you can see the tuna cause the ground was white, white, you know like that white mud, I'm sure it's the white mud ... Clay, yea clay ... and Mum said "no trouble! We could choose which eels we want 'cause we could see the eels the big ones, the small ones, na! And the grandfather just puts it in and pick it up, one big eel and that's it they come home. ... they used to have all their homes by the lake [she lived] right around the other side of the lake ... [ref 17/8]

The importance of the river

The Utakura River was regarded as the cornerstone of life in the valley; it was central to the survival of the community. The river was used for everything; it provided food, water for household use, gardens, washing and bathing, and a place for swimming and socialising. Until the 1940s - 50s, when tanks were installed to collect roof water, the river was relied on as the only source of household water.

The river was a beautiful place, and it was very important to all of us ... we all depended on the river, and the river was very clean. We drink the water, we swim in it, we do the washing and we do all sorts of things ... [ref 2/2]

Well to me we could have never survived without that river. The river, the Utakura river, was more important than gold, as far as I'm concerned ... It fed us, it bathed us, it looked after us ... [ref 10/11]

...well the river was an integral part of our whole wellbeing ... it always provided you know for our whānau ... it's just been there since day beginning you know, we'll always be around water, we'll always go to the water, we'll always look for kai, you know we used to wash there, swim there that was the other socialising point ... [ref 13/5]

A kaitiaki practice was in place around washing clothes in the river "you know if you're washing clothes then stay down stream." [ref 13/6]. It ensured the washing place would not pollute the downstream water used for other purposes - a far cry from the automatic machine process of today.

On Rāhoroi we used to have a batten and stone and put our clothes across it, and soak it and hammer it. That's how we washed our clothes those days. [ref 10/11]

One whānau member explained how they moved from their homes to live by the riverside during the dry times so that they could readily access water. There were several specific places on the river where access was particularly good.

We lived on the rivers, only in summertime ... we didn't have water tanks in those days, we had wells. Sometimes in the summer it would dry up and then you got to move down by the creeks so that you are right by the water. [ref 7/3]

Remembering healthy waterways and lots of activity

Everyone that was interviewed could either remember when the Utaura River was pristine, or had whānau stories about it once being pristine, describing it as "like daylight" [ref 22/8], "absolutely clean" [ref 17/3]

...the whole of the Utaura river was just crystal clear, yeah crystal clear ... (kuia), to the extent of being able to see fish swimming in it. [ref 2/3]

It was pure, it was clean ... All our marae were supplied by the creeks and nobody got sick out of that water. [ref 18/12]

...we used to go down there to the creek with jars and the water would be shining aye. A lot of the people used to fill their jars up and take it to the tennis court [to drink]. [ref 12/6]

Whānau used their senses to observe water quality, colour, flow, smell, erosion and changes over time. This determined if the environment was safe to use. There was tikanga around activities on the river; different places for different activities such as washing, gathering kai, and swimming. There were still people that could name specific places on the river and who also drew their knowledge about the ecosystem and the natural elements from the river – such as the depth of their understanding of that environment. Whānau associated with the different sectors had rights and responsibilities for maintaining the resource. Numerous places along the river were named after something of significance – a whānau name, a feature of the environment or an event.

On that river we start from Paremata coming up Papakura, then you come into Pirori, and then it goes to Te Ripi those are the names along the river, Pirori, Te Ripi then you go around to Maraeroa and then you go up to Ōkāka Road right up, each one of those places has a name. [ref 18/5]

...when we had to go and get drinking water we would go up to Ōkāka Road to the bridge and we would bucket it in from the bridge. [ref 13/6]

Whether for work or play the Utaura River was a gathering place for all ages. Older people remembered the daily ritual of bathing in the river, the community bath-tub.

That was the only wash, you never had any bath or anything like that, you go down the creek. Even in the mornings you go down to the creek. [ref 22/3]

Old and relatively young participants recalled happy memories of the times they spent at the river. It regularly brought whānau and the community together during the summer - taitamariki learnt swimming, diving and water safety.

We had a willow tree and diving boards on the willow tree. And every kid that grew up with me could swim. All can swim, all can dive. That's where all my kids learnt to swim and dive. It was clear, that creek coming from the lake ... It would be blue, bluey green, almost like the sea. [ref 10/11]

You know in the summer we would, that's all we would do we would swim, if we were kids we would swim. [ref 13/5]

...we were one of the closest residence to our swimming hole ... it was a community thing, you know the bottom of the valley would come up and whether it be doing washing during the summer or just being sent out as kids for the day to get out of the house, yeah it was a local dwelling where it collected everybody from the valley. [ref 6/1]

Water seemed to have always been a topic of conversation in the Valley. It was one thing to have a good source of water but with limited equipment it took hard work and innovation to get it to where it was needed as easily as possible.

...we got water supply ourselves, my dad built a dam in the bush and had the water build up and a pipe to the cow shed and the house ... yeah, gravity feed. [2/3]

It was about 1953 when Hoki Kaihe you know down by the cowshed, well he had a pump down by the creek and ah and he used to pump up to the cowshed ... I supplied that hose right from there to the marae but he only let us use it so much aye. [ref 12/2]

There were vivid descriptions of the process to get water from the river to supply the marae using horses, a sledge and 44-gallon drums. Only being able to bring one drum at a time often meant several trips during a hui.

...we used to harness a couple of horses up with a sledge and a few drums on it and away you go dragging it to the river and fill it up, then drag them out again and take them to the marae ... It just stood outside the gate when you wanted water you just went over to the drum. [ref 7/11]

Puna were identified and known to have played an important part in supplying good quality water to homes as well as gardens.

Āe āe, he tau te waka, te wahi tapu ki ahau. I reira katoa ngā puna i muri i mua hoki tō mātou kāinga ah i Paremata i reira he puna i te taha o te ripo. Kei raro hoki te ripo, āe, i te taha o te mud flat, āe, āe he puna i reira. [ref 4/4]

(translation: Yes that waka, that place was always sacred to me. There were a lot of springs all around our home, in Paremata there was a spring on the sides of the ripo. Below the ripo, on the side of the mudflats, there's a puna.)

Degradation of the waterways ...it's not the river's fault, it's the people. [ref 7/2]

According to local understanding, a combination of natural phenomena, land use practices and government policy contributed to the deterioration of water quality and the current poor state of the environment. Looking back on the chain of events, a number of people alluded to the problem stemming from “messaging” with nature resulting in major stress and burden on the environment to the extent of altering eco-systems

Well don't tutu with nature, otherwise if you tutu with nature it's gonna bite you back. [ref 19/8]

...it was nothing like it used to be now ... I mean you got all the silt and everything there now and it's building up, building up you know. It is a lot different. [ref 11/3]

Kōrero passed down through whānau warned that the influence of colonial systems would lead to Māori losing rangatiratanga and kaitiakitanga of their whenua, awa and other taonga. A current example was given involving some rare Rata species that mana whenua had struggled to maintain kaitiaki over with the agency involved. Another kōrero was shared by a kuia:

Yeah, Karani Nika used to tell us that umm, but he told us this in the 40s. “One day you won't have this anymore, because the Pākehā will come along and pollute it”. Yes, he said “the Pākehā will pollute it. All their cows be shitting in the lake, ko tūtai ka tote o wai a rātau ... He said “I don't think you will live to the age where this place will be clear again”. Sure enough, and to think we bloody trustees own the bloody lake and we're helping the Pākehā to pollute it. It's so sad, so sad to see this. [ref 10/12]

While upstream Pākehā farmers' practices came in for criticism, a couple of people acknowledged that their own farming practices had also contributed by allowing their stock access to the river.

Now our awa, the Utakura River, comes from Lake Ōmāpere, we never had problems in those days we didn't accuse our neighbours, the farmers, of what was going on because we had cows ourselves, and sure they are going to tiko in the creek ... [ref 18/2]

Others maintained that it was the extensive scale of recent dairy farm operations compared to those of years ago that caused the most damage. The smaller subsistence farms weren't considered to have the same detrimental impact on the environment.

...there were no big farms in those days, was just small farmers, there wasn't [much] to pollute the rivers like it does now there's too many animals, there wasn't many animals in those days. [ref 2/2]

Some suggested that the base material, depth and flow of the river would have mitigated the relatively small amount of pollution coming from the small dairy herds of Utakura either through effluent from the cows accessing the river and/or from the milking sheds.

...everyone had cows and was milking but our water was able to stay clean I think 50 percent of it was because we had a lot of metal in our creeks in them days it kept it filtered all the time, today it is all mud in our creeks ... [ref 12/18]

Some found it difficult to balance what was good for the environment and what was good for production.

You know like up Ōkaihau, the lake that is where the water comes from, well how can you stop people from improving their farm, you can't say to them not to fertilise their farm ... they got to have it to get grass for their cows. [ref 22/10]

Systematic deforestation over a long period of time cleared land for livestock farming and the logging and milling industry. Whānau were saddened thinking back about the large blocks of native bush that had been removed. Some remembered that, at that time, it was regarded as a measure of progress and employment creation; however later they witnessed the long term, harmful effects of destroying the natural eco-system.

...it all started when they started cutting all the bush down and when they started draining all the swamps around the lake, 'cause if you look at the original lake it used to go right to the rori at Kaikohe ... all up in there it would have been all big swamp lands and ripo at that time, [which was drained for] farm land ... for profit for someone else yea and then they blame the swans ... run-off from the farms ... that is the biggest contribution to the pollution ... the fact that they lowered the lake you know from its natural thing so it's shallower so it heats up more and quicker now and you get that um that oxygen weed thing that grows in it, cause of the heat of the lake ... [ref 4/12]

...when the railways went through ... they sort of ah took the trees for sleepers, railway sleepers. I know where I lived they did take trees for railway sleepers, they worked on it and um, what I see it is "progress at the cost of the land". [ref 2/3]

The world economy and markets determined that species would change. There was worldwide demand for timber from the early 1970s that saw large tracts of land cleared for Pinus Radiata plantations. The species was deemed suitable for marginal land, and to the industry provided long term employment, which was lacking in areas such as Utakura. This meant further destruction of a local resource and the native trees and their associated ecosystems, including kai for the native bird species, as well as for the ngahere kai gatherers.

Well again you see when you take away trees the ground is going to cave in. Naturally you know it's going to change the cycle of land and that's what I've seen ... [ref 19/2]

And that was the worst thing they ever done here was plant pine trees, they got rid of all our berries that we could go and eat aye. [ref 7/3]

The common perception from people interviewed was that the pine forests were not good for the whenua, with instances given where forestry was responsible for small creeks now being dry. The Utakura 7 Incorporation came in for a lot of flak as the majority of land owned by the shareholders was leased out for forestry in the early 1970s.

Just quietly I blame Utakura 7 when they started doing those pines. All they were worried about was money, never mind what it's gonna look like or what it's gonna end up like. [ref 10/15]

I'm against that forestry, from day one right till now. ... all the nutrition gone out of the ground. It's got to take just as long for the land to recover ... [ref 8/11]

As dairy herds expanded more land was cleared and developed for pasture, which often meant draining wet-lands; these ecosystems were not seen as taonga or of commercial value. Coupled with forestry development, drainage was blamed for changes to natural wetland areas and springs.

...the Tohu's ... they had a spring at the back by the forestry there, it was almost like a running creek in the summer you know below Raumahis there below the marae yes that used to be a running creek ... [now] there is not enough water to keep it flowing. Over the years it has dried up, actually I think there were two springs at the back there. But there were a lot of houses that lived off that creek. Even the creek at the back of the Mane farm there how low it has gone ... [ref 5/5]

Changes in vegetation were recalled by most interviewees, although one 65 year-old said that she could not remember any native trees apart from mānuka on river banks when she was growing up in Utakura. This may indicate that the native vegetation had been removed a long time ago. Toetoe, ō, kuta and kōrari used to be plentiful around the lake edge and in the Utakura Valley.

...there was a lot of raupo ... there was a lot of swamps aye. That's what I do know, now the harakeke yeah that grew but that grew on the edge of the swamps, before it got to the creek. ... so any water that was filtered was filtered by the swamps, because that's where the harakeke grew in those swampy areas. ... the swamps that contributed to the river are no longer there. [ref 13/7]

The annual regatta event held on Lake Ōmāpere is often cited as introducing weed to the lake and contributing to its collapse. Nowadays it is acknowledged that boats, unless meticulously cleaned, can transfer pest weed between waterways.

When they took the regatta up to Lake Ōmāpere that is when it started, before they put the boats on there, everything was sweet as, everything was alright ... [the] boats came over to the Lake ... probably in the 70s I think because they stopped having the Regatta in Hōreke and then the next thing we know all this thing about the algae, our Lake started to get sick and that is when things started to go wrong. [ref 18/2]

Impacts of degradation of the waterways

Whānau talked about how the pollution of the river affected their kai source and their ability to uphold manaakitanga obligations. Whānau felt bad about not being able to have tuna and mullet on the table for manuhiri.

I do remember it [the river] going dirty because the smell of the water and it was green ... we never got anything out after that ... mullet and eels we used to get out of the creek but after that, nah I never went down there again ... we didn't eat anything out of the river, we didn't let the kids swim in it, we didn't wash in it, when it was really bad and it was the smell I wouldn't let the kids go there and we wouldn't drink from there ... [ref 1/1]

...well see I fish a lot. There were fish that you could smell that were, they were polluted ... you can still taste it in the fish now and again. [ref 19/2]

...honestly, we went to split it to hang it and the flesh was green so obviously the algae and that is coming out in the flesh as well in our tuna. [ref 6/4]

...upholding manaakitanga responsibilities, ok. That would be the main one, because that's part of the wellbeing and if I cannot transpose that then my wellbeing is being affected ... [ref 13/11]

Lifestyles were significantly affected by not being able to use the river. Opportunities for whānau social interactions, swimming and physical exercise, and activities within walking distance of home that cost nothing were all decreased. What Utakura was about in the summer changed for whānau. It was a huge blow; the swimming holes at Harrison's and Te Ripi were affected and became unsafe and too shallow for swimming. Some whānau drove to the pool at Rāhiri to swim but this changed the dynamic associated with local activities, and prevented taitamariki enjoying, using and learning about their own environment. Having to rely on vehicles to go for a swim changed the social aspect; fewer whānau got together, the exercise component was reduced to swimming (not walking there and back), and there was the cost of fuel to travel out of the valley. The deterioration of the water was seen as a factor in whānau spending more socialising time at the local hotel.

We spent a hell of a lot of time there [at the river]. If we weren't in the gardens we were down the creek and everybody would come they would amalgamate, have a big lunch ... Yes it was a family thing, when it died off it became polluted there was sort of nowhere to go ... I think that is how the pub was attracted ... When the creek went sour everybody went to the pub ... [ref 6/2]

Whānau worried about the effect on animals that drank the water and there were suspicions that animals (horses, cows) had died from drinking the polluted water; however they had no evidence.

...you know we never lost any stock through it but then the stock they have their own minds and they might have found water somewhere else ... it is good for them and bad for them I suppose, you will never get a horse to drink something that doesn't taste right ... [ref 1/13]

Several whānau had noticed changes in the harbour that they put down to the poor health of the whole catchment. People who fished in the harbour for many years and who knew it well reported changing currents and considerable build-ups of silt and mud, where previously there was sand and gravel.

...in the last ah 10-15 years the tides and the level of the bottom or what you call it, well it is sort of sinking down and down because now you get that undertow. Out here is shocking with the undertow around here we never used to have it before and because it is all mud and no gravel ... that is part of what has been happening in the Hokianga ... This place has totally changed over the last 15, 20 years since I have known and I can notice it even when I am on the water. ... it is when I am rowing and even when you are on the outboard you can notice the steering ... Oh there has been a lot of changes aye ... [ref 12/10]

Sand and mud flat, never had all that silt and whatnot, that's only there in the last maybe 20, 30 years. But it looks horrible when the tide's out like our harbour looks horrible because all the mounds and the silt mounds and that sort of thing. [ref 11/6]

...we used to swim in and catch eels and we used to walk across when it was low tide, we used to walk across quite comfortably, now you put your foot anywhere there and you get bogged down because it's quite silted up. [ref 5/4]

Other factors impacting on the catchment

The Uta-kura Valley was flood prone – every year there would be three or four major floods. Whānau said it had always flooded in the valley and this resulted in river course changes, erosion, and gravel being swept away.

...but the floods have been the same for years you know ... the banks are changing all the time; the banks are getting eaten away because there is nothing to hold them up ... [gravel] has all been washed out ... [ref 1/11]

It wasn't till about 1969 or 71 when we had the biggest flood here you know and it has never gone back to where it was ... Ever since that big flood things have been a lot different aye, shifted a lot of things aye, especially in that creek environment aye. And I thought to myself it took a lot of the metal [gravel] away too. [ref 12/18]

Exotic poplar and willow species were planted along river-banks in the 1990s as part of a local government scheme to reduce flooding and damage in flood-prone areas, and to stabilise the land. There were mixed feelings about the scheme. Some saw these exotic species as interfering with the water flow and contributing to the flooding problem, especially where they had colonised parts of the river, and being an added source of debris when the deciduous trees shed their leaves. The other opinion was that they were useful because they provided an element of filtering for the water.

I can remember the ... willows just clogged everything up, the roots of the willows. They grew across the river and everything that came down, sticks and animals and all sorts got caught up in these. ... it was a scheme ... to stop the flooding, but it just caught everything that drifted down. [ref 5/3]

Yeah weeping willows and the willows that are there today ... the old people believe those days, because they pulled the willows out there was no filtering for the water, because they believe that the roots of those trees were actually filtering the water but when they pulled the willows out 15 years after I suppose and then the water started going like how it ended up ... [ref 8/2]

Summary

- 'Mā uta ki tai' was a well understood environmental concept.
- There were strong whakapapa connections between the roto, the awa and the wahapū.
- Lake Ōmāpere was regarded as a taonga of great significance that affected the water quality down-stream.
- Specific place names were markers all along the river.
- The Utakura River was remembered as once being pristine and playing an integral part of life in the valley.
- When the river was healthy it had multiple uses and provided much; kai, household, marae and garden water, washing and bathing facilities and a place for swimming, learning and socialising.
- When the water became unhealthy (algal blooms) all of these activities stopped.
- Water quality was gauged by the way the river looked; the colour, smell, flow, and observations of change such as erosion, presence of silt, slime, and the stocks of kai species.
- Puna were common and also supplied household water.
- Much knowledge about the ecosystem was gleaned from the river.
- Water quality determined the kai source which affected the ability of mana whenua to uphold manaakitanga obligations.
- A mix of natural phenomena, land use practices and government development policy were blamed for the deterioration of water quality.
- Land development practices that involved removal of large tracts of native bush date back many generations and removed the waterways natural buffers.
- The forestry industry developed from the 1970s and recent trends in large-scale intensive dairying operations had a detrimental effect on the local environment and specifically the quality of the water – wetlands had been drained and erosion was common.
- Little native vegetation was now evident along the waterways.
- "Messing" with nature created major stresses and burdens on the environment to the extent of altering ecosystems.
- Colonisation contributed to the loss of rangatiratanga and kaitiakitanga over the taiao.
- The Utakura Valley was always known to be flood prone.
- Poor water quality in the lake and the river also affected the harbour. There were now large build-ups of mud and silt where there used to be sand and gravel.
- There needs to be a balance or harmony between productive and sustainable land use and protection and enhancement of the environment.

Tuna

Tuna were a big part of the local economy at Utakura and whānau recognised their importance. As well as being a significant part of the daily diet they also played a critical role in the ecosystem. Several people recalled how tuna helped to maintain water quality in their puna, wells and tanks and they were regarded as water filters.

...we had ahh, quite a few spring wells around the valley too. At Te Weranga there, there used to be a spring well there. ... August every year, we used to catch the eels especially for our puna. To keep the puna clean, that's one of their purposes to keep it clean. [ref 10/1]

Whānau interviewed could remember a time when the tuna and the catches were large. They remembered huge tuna being caught at Pirori.

I mean you probably wouldn't catch as much eels ... that we did in our day, you know you put your net ... and then pull them out, it's full, and when I say full it's full. There used to be some huge eels in our water ways ... [ref 11/7]

...I remember Aunty Kuia Mane talking about the tuna she says "yeah Koro the tuna were this big" you know big big, bigger than the preserving jars she was saying, big big, but only a certain time of the year that the tuna would come down [tuna heke] ... [ref 4/8]

...they used to back the tractor into the creek with a drum on the back of the tractor and they just hook out the big ones and let all the rest go, soon as they get enough they go home. [ref 8/4]

Eeling was associated with enjoyment and socialising on the river; it brought whānau of all generations together and provided a time and place to pass on knowledge about tuna and the environment. Everyone that talked about eeling still felt the excitement as they recalled their experiences. Although hard work and a necessary part of putting kai on the table, the memories related to the fun of eeling with the whānau.

...it was fun it was heaps of fun [at the creek] ... Yeah in the late afternoon, we used to go in the late afternoon and sometimes we would be still there the next morning till about 2, 3 o'clock in the morning sometimes all night till the next morning, it was heaps of fun. Aunty Bubbie use to bring her wheelie bin because it was easier because you just hook the eels and throw them straight into the bin and they come off the hook and instead of throwing them on the bank and having to run after them! ... it was so much fun there was heaps of eels ... you can see them coming down and you wouldn't go hook the small ones you would let them go down ... [ref 1/1]

Well I remember when we were kids ... my cousin and friends ... would all go and catch tuna at night time and make spears then sit by the river and wait and wait but when we get one we are all excited that we want to go home and cook it straight away haha. [ref 15/5]

The 'tuna' people had an intimate local knowledge of tuna, their habitat and life cycle to the extent that one person said that they could "...practically taste where the tuna come from ..." [ref 6/10]. During the month of November, elvers would begin their migration back up from the river and tributaries to Lake Ōmāpere, as whānau recalled:

...when they're babies they go up the waterfall at Te Karu ... you could smell them you know as they're going up to the lake ... it is not a big waterfall ... he [Ron Lewis] said the whole thing used to be black with tuna, all the little tuna going up into the thing and he said the smell, you know what eels smell like. [ref 1/2]

When the baby eels [elvers] were running, the water was black with them and you could fill buckets with them. [kuia]

Local knowledge of the tuna heke was strong. It was seasonal, occurring in March after the first rains of the year when thousands of eels began their migration from the lake down the river to the sea. Fishers prepared for this important annual event in the valley. They knew where the best places to go and had tried and true techniques learnt from the experienced eelers. Everyone acknowledged the tuna heke to be a significant annual event; an intense harvest that required organisation, storage processing and distribution, and one that the whole community anticipated and was involved in.

I remember when I was about five or six every year before the first of the big rains used to come and the old people used to gather up and spread a line, [the] Uakura bridge just before it, there was a bit of a shallow area and us kids used to stand up on the bank while our elders would stand in the water ... [ref 6/4]

...the first flood in March the eels would come down and go out to the sea. We used to line up with two lines and light a big fire on the side. Oh there was normally two or three, three in the front and three at the back the hooks and all the rest is on the side and you would just hook and throw it because the big eels are coming flat out. You just hooked and threw it and they would give you another hook, they would take that one off that hook. There was just three of us we would have one line in the front and one at the back and the ones we miss the back one will get him, and they had a 44-gallon drum and they would take the eels off the hooks and just put them in the drum. Oh they used to come down thick every year and the next night they stop but the second night the big huge ones come. They come down and some places are too shallow and they turn sideways like that and then they roll and that is where we put our net, but then they're off they start kicking ... You hang on to the hook until they drown, they drown themselves so they're fighting. [ref 22/7]

...you are hooking them from left, right, and centre but really they should of let them to go to breed but they double up aye some underneath and some up the top oh they are beautiful how they go ... [ref 18/30]

Knowledge of the environment guided practices associated with tuna; determining what, when and how things were done. Whānau shared information about various tuna catching methods, practices and equipment; home-made rods, punga, hīnaki.

Well they mostly put them [hīnaki] in the creeks aye ... not so much out in the open environment ... more or less in the creeks in the drains ... [ref 11/7]

I remember going there and in those days they used to use the harakeke to catch the tuna with, they used to put the worm on the end and tie a knot on the harakeke and then, the harakeke in the water and the tuna would grab onto it and catch its teeth, the harakeke ... [ref 4/7]

Really we didn't have nets [for eeling]. Actually the eels were in the mud flats you know in the banks ... that is where we used to get our eels. [ref 7/8]

Summary

- Tuna were a key kai species, both short and long-fin.
- Large tuna and large catches were recalled.
- Eeling was associated with getting a feed, whānau expeditions, fun, and a time for learning, teaching and passing on knowledge about the environment.
- People had a wealth of local knowledge about tuna, their habitat and life-cycle.
- Participants remembered the tuna heke, when mature tuna came down the river on their way out to sea to spawn.
- The tuna heke happened at the first rains in March each year and was eagerly awaited by the whole whānau.

Other kai and species

Kai was consistently talked about throughout the interviews. Commonly the whenua, awa or moana sources were referred to as the local “cupboards”. Kai was remembered as being plentiful and a broad variety provided options and a high level of self-sufficiency. It was gathered seasonally and this ensured optimum quality and the sustainability of stock.

...there was no such thing as buy, you didn't really buy kai, I mean the kai it came from either the ground or the water and the only kai you really brought were flour and butter and that was about it. [ref 4/8]

Tūpuna kōrero relating to Utakura resources, papakāinga and cultivations are well documented in old Māori Land Court Papatupu records. There were large communal mahinga at Mataitaua for example, where kai such as kūmara, rīwai and kānga were grown for marae and hapū. Whānau papakāinga tended to grow other species such as fern root, wild and cultivated fruiting native trees such as karaka and miro, as well as introduced fruits, flowers,

and other vegetables. This ensured hua whenua practices were known, passed on and preserved. From the 1950s and 60s, communal mahinga fell into disuse as the population waned due to the urban drift.

One participant had particularly detailed memories of how gathering of wild foods was woven into the community fabric.

Tōku mahara ki te wā i noho mātou i Paremata, rima ōku tau pea i tērā wā, maharana hoki au ki a rātou mā kī mai a rātou mā a Taupuhi mā, he mahi māra rātou me mahi tahi rātou me aku whānau, ōku pāpā, kia haere rātou ki te hī ika, i haere rātou ki raro i te awa, haere rātou i raro te urupā o Paremata kei reira hoki mātou i haere ki te hī tuna, haere ki te hī inanga, katoa haere ki te wāhi kaukau, i reira hoki tō mātou wāhi kaukau, haere ki te kōhi karahu i ngā mudflats o tō hoa te Hōreke, me tērā taha hoki ki awhia ka haere mātou, ka noho mātou whānau ki reira haere ki te rapu hua whenua ki reira, me ngā kai katoa o tērā o ngā takiwā um tōku maharatanga he wa tino harikoa ki ahau ahh rātou ngā kai tohutohu ko Taupuhi mā ko rātou ngā kai tohutohu mātou i tērā wā i haere ki te kōhi taraire i muri te wāhi tapu i Paremata, kōrero te kōrero a tōku matua Taupuhi, ētahi o ōku matua “e pai rā Koro?” “Āe, kei reira ka kohikohi kai”. I haere mātou ki te kōhi taraire, haere ki te mahi mokoro i roto i te rākau kahikātea i te wāhi mahi wahia mō te whānau, āe, ka puta hoki ngā mokoro i reira katoa ngā kai pai mō mātou te cancer, he kai pērā reta tana hoki ki te peanut butter āe, me haere mātou i runga hoki ngā puke, ko te puke i muri hoki te rori i Paremata te puke nui hoki ki reira hoki i mai he māra kai mō te whānau, i reira hoki tētahi pā i reira, engari ki reira hoki mātou [ko] tōku pāpā me Taupuhi mā, i mahi māra kai i runga tērā puke āe”. [ref 4/3]

[I remember when I was living in Paremata, I was 5 years old maybe at that time, and I also remember Taupuhi and them, we worked the gardens collectively and also fished together. They would go down below the cemetery and that's where we fished and caught whitebait, and it was also where we would all swim/wash, that was the place to wash. Also we would gather karahu in the mudflats from Hōreke. On the other side of Hōreke was Awhia also there was karahu. We would stay there in Awhia and gather fruit and other food from that area. I remember it was a very happy time, to me it was.]

Kai awa

The river was a significant source of kai for the valley. Species were gathered seasonally and, in addition to tuna, there was inanga (whitebait), āua (sprats herring/yellow-eyed mullet), karawaka (common smelt/ retropinna), kēwai (crayfish), kōkopu, and koaru (black pipi) and torewai. A number of people who talked about the once plentiful supply of kai awa said that stocks of some species were now depleted.

Whānau remembered back to when the river supplied plenty of kai and noted that white-baiting was associated with particular whānau and particular locations.

My Dad he used to catch lots of inanga ... he'd catch like you know, big big buckets full ... isn't just a litre, it was like a ten-litre bucket in one time, a ten litre bucket, also the awa, haere ki te awa ... That kai was plentiful ... every time there was a hui Uncle Taupuhi would go down to the, behind the wāhi tapu oh down by the marae with his

kete and just put it in the water and scoop up a whole lot of parore and away he went. [ref 4/7]

And then of course in season there would be the whitebait. I can remember old Murdock Muriwai ... during the whitebait season we see little old Murdock going past with his little billy to get whitebait. [ref 5/7]

...before the lake was polluted, children and adults were able to fish for eels and enjoy the sport. The road from the White Bridge to Mataitaua was like Queen Street with white-baiters on both sides of the river all catching a feed, especially when the whitebait was running. You could see the whitebait coming in the clear water. [kuia]

A local whitebaiter recalled changes that she had seen during a 10-year period.

I have been fishing or rather white-baiting full time since I retired in May 1993, and it is most notable that there are fewer baby eels each year coming up the river. 2002 I went to whitebait at Rāhiri (Waihou River) where the water is much clearer. At the end of the season in 2001 about October/November I noticed that any whitebait left in water overnight smelt and were turning yellow. [kuia]

There were two runs on consecutive days on the Waihou [in] 2002 for about an hour each time. According to the locals ... it's the first time they have seen baby eels running, and no whitebait. They came after. I have seen them running together on the Utakura River but not during the last ten years. [kuia]

As kai species became scarce whānau went to great lengths to gather them for the kuia and koroua. Koaru (black pipi) was once was an important food source in the area but was no longer seen in the river.

...what we called koaru, it is a black pipi right down in the mud you can actually cut your fingers on it if you grab them wrong you know but you feel for them and then you dig them out oh they were beautiful. The only place you could get them was here in Hōreke down by the bridge down here, now you don't see it, no you don't see it now. [ref 12/9]

Goldfish were reported coming down the Utakura River during flooding. One whānau at the lake was known to have always eaten them (even to this day) while others regarded them as a pest fish.

...you would see them, those coloured fish [goldfish] from the lake. They came down with the floods ... there was a swimming hole just before you get to Te Ripi there, and in the puddles you know further up you would see all the fish ... still alive but then you see they weren't edible they just didn't eat them. [ref 5/7]

Although not everyone enjoyed kai from the river, they still enjoyed hearing and sharing the stories and the adventures of whānau associated with the river.

Well I am not a river-kai person but I can remember they used to fish at you know, Mataitaua ... that little creek there. I can remember Mungie and Girly and you know a

lot of the women. They used to fish for what they called kōwaitau but I never heard it referred to anywhere else. And they were like little sardines I suppose, but I am not a fish person ... [ref 5/7]

Kai moana

Kai from the Hokianga harbour was also plentiful and complemented that of the river “...the water was good, plenty fish ... all sorts of fish ... “ [ref 17/4]. Species included karati, tāmori (snapper), pātiki (flounder), āua (sprats), koeke (shrimp), kanae (mullet), parore, and kahawai, and shellfish. The intertidal movement of the waters of the Utakura River allowed for the species such as parore and kanae to extend some distance up the river.

Parore yea, and umm mea the koura, the little shrimp yea, karahū I mean there was all that kai was there then, ika katoa, you know ika katoa, karahū, kanae, āua, you know flounder, i reira katoa ngā kai ... [ref 4/7]

The decline in the tio (oyster) population was blamed on siltation and foreign oyster species colonising the local species.

...we used to have a lot of oysters. ... they grew on the mangroves on the roots in the water. ... these mangroves here wasn't as big as then aye, it was just like all along the edge of the harbour ... But as time went by they got thicker and thicker. [ref 7/2]

Māra kai - gardens

The whenua of Utakura was fertile and produced an abundance of kai. Cow manure from the many small milking sheds was sought after to maintain nutrients in the gardens. Whānau remembered growing up with big gardens and said it was all about feeding the whānau, whanaungatanga and manaakitanga. Generally, all whānau members were expected to help in the gardens; it was strenuous time-consuming work, but accepted as a necessary part of life.

We used to take turns in the garden. One day it would be my turn and the next day is aunty's, Robyn and them's turn. The next well it's ahh, Te Weranga's turn then the next day it's the Tahere's turn, and then down to the King's, then down to the you know. We all had special days to do things. And we get told ahh, your turn for the kūmara, your turn for the rīwai, your turn for the corn, your turn for the taro. [ref 10/3]

Yes we would go on the hills up on the big mountain across the road which is where we also had a garden for our whānau, there was also a pā there, that is where Taupuhi and my family had a garden. Yes we worked the garden on the hill ... all the food was good, and on the side of the hill was a spring, to think we used to go there and get the water ... [ref 4/3]

There were many varieties of fruit and vegetables (kūmara, potato, corn, watermelon, tomatoes pumpkin, rockmelon, and cabbage) and particular whānau were known for growing certain produce. Whānau had their own gardens but they were worked collectively with other whānau. Some people looked back on work in the big gardens as fun times, although one

person disagreed and couldn't remember gardening ever being any fun. Whānau played different roles in the gardens and at busy times they would camp at the gardens until the mahi was finished.

Like when I am talking about a garden I am talking about three or four acres and then when it is time to rakitaru [weeding] we used to go rakitaru the garden till it was dark till you couldn't see the rubbish ... we had a drain there with water running through to water the plants ... mum used to go up there and we used to take this canvas up [for shelter] and hang it up in this drain between the trees and we used to stay there till we finished the gardens - it used to take us about two days or three days. Just take a pot to cook a kai while I am up there, well we never used to come home till we finished ... you worked hard. [ref 12/17]

...the Kaihe's had big gardens they were known for their watermelons their big huge watermelons, yeah they had big gardens then. They had a huge watermelon garden, kūmara, watermelon, corn, you name it. [ref 5/2]

...they had big gardens, huge gardens like kūmara gardens, potato gardens and that sort of thing. ... Watermelons, everything - there was just everything in those days. [ref 11/3]

Harvest time involved tikanga around sorting and grading the vegetables, selecting and saving seed to plant for the next season, and then storing the root crops in a whata to be eaten throughout the year. Whānau had their tried and true methods.

...the rīwai they used to put inside the shed but they line it with that ... they got a stink smell, you see them growing in the paddock, growing wild purple, the purple things [penny royal] ... they keep all the insects away from the rīwai you see ... either that or they used the fronds from the ponga, keep it dry and keep the insects away, and the kūmara they used to wrap 'em up in paper each kūmara individually so that they won't touch one another and go rotten, in the earlier days they used to bury them in the mud aye, the dry mud though aye inside this shed ... so you know that way of storing the kai lasts until the next planting season aye, get everybody through the winter ... always leaving something for the following year ... take the seeds out and then what's left you can eat 'em ... [ref 8/6]

Orchards providing an abundance of fruit were common in earlier times and the fruit that came from particular orchards was vividly recalled.

...pear trees you know big, great big pears ... there was um another place by Meheke, there used to be this big orchard ... [ref 17/4]

Whānau were resourceful and used to making do with what they had – even making an alcohol drink from kūmara.

...they used to make their own alcohol, Taupuhi was an expert at making it, out of the kūmara they used to make it ... and another mea and they put [in] it like a leaf from the bush ... [ref 4/8]

The move to the cities had a major influence on people's lifestyles and their commitment to gardening. Those who had gardened up until the move to the city found that, with workplace obligations and cash in their pockets, they quite quickly began to buy food; however some continued with gardens just for their own sake.

Even when I moved to Auckland I had a few gardens at the back of my place you know because I was so used to it ... I didn't need it because I had a good job, I had my own company I could just go around the road and buy it, but it is just something that I was used to. ... it was just a habit and kai was always sweeter when you did it yourself you notice the difference in the taste. Then when I put in the swimming pool I stopped having a garden. ... I got a bit lazy in the end there because I could afford to buy it hahaha. [ref 12/18]

Kai ngahere

The ngahere was also a source of kai, especially remembered as providing snacks. Several whānau reminisced about gathering and eating the taraire, karaka and miro berries, pātangatanga, and nīkau from the ngahere.

Tāwhara is one [kai from the bush]. It is like a cabbage tree but it comes straight up from the ground but it sprays out like that and the inside of it has got this coloured flower and underneath this coloured flower is this pink tāwhara aye, oh beautiful to eat. another one there is the pātangatanga ... the tī kouka, there is about a half a dozen of those kai in the bush aye. [ref 12/16]

Taraire berries oh that's prunes to us. They're like prunes but they're got a big seed, but when there really ripe mmm. When we were kids we used to go up to the bush Saturdays and Sundays you know, walk up there. Looking for berries, having a kai, tāwhara and all those kind of things but at a certain time aye, you can't just go up there any old time. [ref 7/5]

...the kaumātua was showing us and letting us eat from the miro trees and the nīkau trees ... there are a lot of different natives around our area. He cut one down and we ate the middle of the nīkau tree it was like a white like sugar cane thing but it is juicy it taste like um milk, it is really sweet and very nice, we all had a feed of that off the nīkau tree. [ref 15/4]

Sharing kai

There was a common-sense approach to gathering and sharing kai whether from the garden, ngahere, awa or moana. As well as sharing with whānau, the practice also extended to manaaki the local and wider community. People were expected to only gather what was needed at the time, none was wasted, any surplus was shared and even the animals were catered for in any harvest.

...you were encouraged not to catch more than you know you could eat, but if you did, well there was always the neighbours to share it with. [ref 5/7]

...and of course our animals get fed [from the garden] they have their rations that is the pigs. They make big gardens for our animals too that is why the big garden of riwai, pumpkin and corn it is for them and the kumikumi, and then for the winter garden is the cabbages they used to rotate around. [ref 18/31]

...all this land around here used to be in garden. ... in many cases the Māori supplied the Pākehās with that sort of kai you know. I know my dad had his bowling mates and he would take the best of his crops to give away to his bowling mates, and we had the rubbish, you know! [ref 5/6]

The practice around distributing kai was strong. The old people, those that were unable to gather kai for themselves and the marae received kai from the whānau in this way.

...they used to bring them [the tuna] back, clean up, smoke them all and then just share them out to everybody. You know how they used to come over for cemetery cleaning, Aunty Nani used to keep hers for [these] things or keep them for the old people ... [ref 1/2]

...everybody be waiting down there, just take what [tuna] you want and go home, and then give it away to everybody on the way home ... by the time they get home they only got enough for themselves. [ref 8/4]

Events such as the annual Waitangi Day celebrations also benefitted from Utakura kai. It was about manaakitanga and tautoko for the kaupapa.

...when we have Waitangi Day every rohe, every county sends a truck of food to Waitangi. Utakura was involved in that ... Utakura used to have a truck [and] every household supplied to that truck for Waitangi. ... fruit, pickle, jam, rewana bread ... beef, kūmara, rīwai, pumpkin, corn and even kānga pirau rotten corn ... Each hapū catered for that ... Utakura always contributes ... Ngāti Toro and Ngahingahi, Oneone and Te Popoto then up to Ngāi Tūpoto ... [ref 18/21]

Preserving kai

In some whanau, knowledge around storage, preservation and cooking of kai had been passed on and maintained by younger generations. Whānau enjoyed recalling these whānau traditions, including how fish and tuna were smoked or dried.

...and we smoked it [tuna] on the smoker ... he opened it like from the gut bit going toward the tail bit and he just cut it open and we put brown sugar and honey on and smoked it for a couple of hours and it was nice. We took them around to the houses and gave them an eel each ... [ref 14/5]

And even fish, you could get too much fish. We used to salt them and then dry them out on the fence, cut them in half dry them and salt them. It looked bloody terrible but it taste good when you are hungry hahaha! [ref 7/8]

During March at the time of the tuna heke people would fish for them to freeze or smoke them for unveilings and hui. [kuia]

Preserving fruit and making jams and pickles was an important summer activity in some households. This was about several things; not wasting kai, preparing for the winter months, maintaining whānau traditions, ensuring that knowledge was passed on, having a supply of items to donate for fundraising, and being able to manaaki visitors, whānau and marae.

And even though you can buy all these things in the shop like pickles and peaches and apples and everything I still try to preserve because Mum and them loved preserving because she was the one that taught me how to preserve ... we used to do about 15 dozen peaches ... since then well I have kept it up ... I still do a lot of pickle even if I just grow kumikumi just for the pickle I have done about 12 dozen pickle this year and I have got nothing left because every time someone comes they say oh I will take that home ... Help to stock marae larder. ... everybody used to bring boxes of beetroot and pickle and peaches ... [ref 1/16]

...we used to have a big blackberry patch at the back at the old home. And, Nan used to make jam and that because we used to have basket socials and that here and you know it all went into that ... [ref 11/3]

Other processes were used to extend the life of meat, fish and vegetables and to provide more variety. Pirau was a specialty kai of particular whānau.

Rotten corn oh that was the thing. Well the maize aye, the maize has got to be ripe, it's got to be hard on the stalks before you pick it. Well some people used to ah when they pick it they just take some of the husk off and leave some on just wrap around the corn then you put it in a bag, then you put the bag in fresh running water [in the creek] ... Yeah and you made sure that if it floods it wasn't going to wash away hahaha! ... then you ah tie your bag and you make sure you got an anchor or something to tie it to a tree with a rope aye. And then you load it into the water maybe for 3 to 4 months. Then you just peel it off, it is lovely, some people don't like it but oh I live on it. My specialty was the corn ... [ref 7/13]

Meat was preserved in various ways, and the fat rendered down as lard and dripping.

Sometimes we used to preserve the meat, we would cook it, cook the pork, chop it in slices. When it is cooked, the way you cook it you make sure the water is sort of boiled out of it. Boil it right out till you're left with the meat and the fat of the meat, then you put it in kerosene tins, well we had kerosene tins back in those days. You put the fat in still hot and you put it in the can and put it away leave it there for the wintertime. ... you make sure the fat covers the meat so that the flies don't get at it ... [ref 7/13]

When we used to kill all the beef we used to ... boil it [the fat] and make beef dripping, the pigs were the same ... you would boil them down to lard for winter storage. [ref 18/36]

...[a] beef used to feed the whole valley ... what wasn't sorted out amongst all the households was pickled in brine [heavily salted] and that's how they kept their meat. [ref 5/3]

Food storage did not involve refrigeration. Any kai that would need to be kept cool was given away or kept in a 'safe'. There was also a technique for trapping and keeping fish in the moana.

...we didn't have fridges then but we had a safe outside, it was like a big box with four legs and it had this wire-netting around it to keep the flies out and that was our fridge... you don't have food left over, you use it or give it away! [ref 5/8]

And I can remember when we were growing up they used to have a, they used to call it a pākorokoro where they used to get tī tree railing and make a wooden net across a little creek mouth and when the fish came in and the tide went out they left the fish there and that was our fridge. That was our cupboard. [ref 5/4]

Kai related competitions

Gardens, baking, and produce competitions were fiercely contested events in the community. They were opportunities for whānau to show-off their skills and there was ongoing rivalry among whānau to win particular categories.

I remember ... about the 1950 to the 60s they had competition who had the best growing gardens ... there was Wiapo and them setting up their place for the best garden for growing veggies, rīwai and all those. From up Te Weranga all the way down ... [held] at Maraeroa school ... Sonny Kaihe he won the competition, he won first prize and someone up Te Weranga there got second prize ... it was a good go between the King's, the Mane's and the Muriwai's, and the third prize came down to the Joyce's ... He [Sonny] was a senior at Maraeroa [school] and oh everyone cheered for that ... we had the best fruit competition for the best bread, sponges, best bottle for fruit, pickle ... the best preserved fruit was a good go between my mum and Karani Mahu ... Āe Kaihe, she had a good hand at that from jam making to preserve right to everybody doing their own pickling sauce whatever. I think the best plum sauce came from up Te Weranga it was a beautiful jam ... and the sponges was Uncle Paino's daughter ... [ref 18/4]

Major dietary changes

Population and lifestyle changes led to dietary changes. Less access to the local resources that previously nourished whānau, and adjustments to employment conditions and time restraints meant that it was no longer feasible to have large gardens and be self-sufficient. Whānau turned to the supermarket and convenience foods for their supplies. This coupled with the impact of the degradation of the natural environment as a food source resulted in changes in dietary patterns – fish and garden produce were no longer the staple.

Well, ko ngā tino kai, ko ngā ika te tuatahi, we were brought up on fish that was the main diet was ika, all sorts of ika, they had all the ika, kariti, ... tāmori ... ahh parore, ahh pātiki, ahh āua the sprats, inanga the tuna of course karuhū ... was always heaps of karuhū there, was pipi down past the island, Hōreke they still have the flat pipi there yea, so there's still pipi there, tio because the mangroves, tio on the mangroves um, we also lived on our māra kai of course you know and we had kānga piro, we lived on taraire berries, we ate lot of that kai from the bush. Those were like lollies ... the mokoroa was (the) our favourite you know, we used to chop the wood and then

the holes in the wood and they'd come out. Mokoroa was like the hūhū bug, and it was quite big ... Creamy yeah we used to race for them, and when we see Dad cut the wood we'd say "hey mine" and then we used to throw them on the waro and roast them up and they were like peanut butter oh man ... so it was that kai and we still had umm puha and all that sort of kai ... we had a big whānau we lived on [and] off the whenua and off the water ... we never had much meat, very little meat yea you know we were lucky to have meat cause umm meat was hard to come by, by then, Uncle Joe and them used to come from Mangataipa bring us wild pork sometimes but cause they lived so far away we didn't really have much of that kai either ... ika that was the main one, ika everyday and you know, boiled fish, fried fish, smoked fish, raw fish, ngā ika katoa ... [ref4/9]

Takakau (Māori bread) was once a fairly standard school lunch for taitamariki growing up in Utaura.

He had about ten kids when we went to school and they were the only family, the Joyce's that dressed up, they got lunches, real cut lunches. Us we just got takakau with nothing in it, and I used to hop on the bus you know as a kid when I started in Ōkaihau and Ronnie Lewis the Pākehā, as soon as I stepped on the bus he wants my takakau and I loved his sandwiches hahaha, as soon as I get on the bus he is opening his bag up to change lunches ... he wants my takakau and I want his sandwiches ... [ref 22/9]

We used to get milk powder from the education [department], they used to supply fruit and yet we had our own fruit. They supplied oranges, bananas, apples, we're alright we had plenty of apples, pears were alright we had plenty of pears, the only thing we didn't have was oranges and bananas. [ref 18/8]

Summary

- There were three local kai 'cupboards' in Utaura providing an abundance of fresh food and a level of self-sufficiency; the whenua, awa and the wahapū.
- Kai was about more than survival, it facilitated whanaungatanga and manaakitanga.
- The tides, maramataka and weather informed kai gathering and planting.
- Whānau were known for particular kai gathering skills and knowledge, and specialty kai preparation, such as kānga pirau, hāngī, bottling and jam-making.
- Rituals and karakia were performed around gathering kai.
- Kai awa species included tuna, inanga, āua (sprats), karawaka, koura, and koaru (black pipi).
- Kai moana complemented the river species and was plentiful; it included ika karati, tāmori (snapper), pātiki, inanga, āua (sprats) kanae, parore, kahawai, and shellfish such as karahū, tio, kūtai, kōaru (black pipi).
- Stocks of some species were now depleted.
- The whenua was fertile and produced an abundance of fruit and vegetables.
- Whānau helped each other in the larger gardens.
- The ngahere provided another source of kai. Taraire, karaka and miro berries, pātangatanga and nīkau were regarded as kai from the ngahere.

- Kai was always shared. This supported whānau who were unable to get their own, provided for marae manaakitanga and meant food was always fresh and nothing was wasted.
- Some kai was preserved to extend its life and for variety; bottling fruit, making jams and pickles was the norm for many whānau. It ensured nothing was wasted, prepared stores for the winter months, maintained and passed on whānau traditions, provided stocks for fundraising events, and produced treats to manaaki visitors, whānau and the marae.
- Urbanisation had a major affect on whānau lifestyles and the ability to maintain kai knowledge and practices.
- There were major dietary changes over a period of time from a staple intake of fish and locally grown produce, to the present day with local kai becoming more of a special treat.

Sharing knowledge and information

Kaitiakitanga

There were many understandings of kaitiakitanga. People referred to kaitiakitanga functions, or the purpose of what people do, as well as kaitiakitanga practices, or the actions that people do as kaitiaki. One thing that whānau expressed in common was that kaitiakitanga had to be a 'lived thing'. The term wasn't used by the old people, rather it was just an intrinsic part of being and thinking Māori – it was embedded in daily routine and was about 'doing'. Most whanau did not feel they were 'taught' about kaitiakitanga; they learnt through lived and everyday practices and experiences.

I never heard of the word kaitiaki ... that type of whakaaro was never um given ... all it was is "what is, is what is" ... we weren't even told about a lot of how things worked you know ... we weren't taught about kaitiakitanga we just knew that um, we belonged to it, and it belonged to us, we were part of it like, it is me and I am it. ... ko au te whenua ko te whenua ko au ... we were living with it ... they didn't give it any terms they didn't give it any names. ... that's how they demonstrated kaitiakitanga I suppose at that time is to live with it. ... you didn't have this terminology that we have these days ... it was just you lived with it. There was just 'doing'. [ref 13/8]

...as Māori if we call ourselves kaitiaki, kaitiaki to the environment then we have to practise it we have to be honest with what we are doing we have to bring the mauri or the life force back to our waterways that once upon a time produced food that our people used to eat ... [ref 16/2]

Whānau participants saw kaitiakitanga as involving looking after and caring for all aspects of being; everyone and everything, not only the taiao. Kaitiaki were expected to observe and pass on local knowledge.

He mea nui hoki ko te mahi o te kaitiaki, maharana au ki te kōrero o ōku mātua e pā ana ki tērā tikanga tērā kaupapa, tērā tūranga hoki. Ki ahau ko te mahi o te kaitiaki me tiaki hoki, me tiaki hoki i ngā taonga tuku iho mai rātou mā, ah te whenua, ngā mea katoa ... [ref 4/3]

(translation: kaitiakitanga is a huge job, I remember the words of my parents in terms of tikanga of that topic, and their stance as well. To me the work of a kaitiaki is to care for the treasures that have been handed down from our ancestors, the land and everything.)

Ahh, mai rā anō tēnā mahi mō te tangata nē, āe nā te whenua e tiaki i a koe me koe hoki te kaitiaki mō te whenua ... the land will look after you but only if you look after the land ... he mama noa iho ... we belong to the land, the land doesn't belong to us, and if you've got that whakaaro then you got to respect what goes with that ... what are we doing ki te mahi kino ki Papatūānuku nē? [ref 4/13]

Kaitiakitanga is the application of those values of environmental sciences, that is the Pākehā way to put it, but kaitiakitanga is about protection, it is about protecting those values that are important ... We all have the responsibility to be good kaitiaki ... whether it be looking after our maunga ... whether it be looking after our history, whether it be looking after our tikanga, our kawa, all those things we have a responsibility because all of them together creates who we are and also helps sustain our values. You know they say 'tāu rourou me taku raurau ka ora tātou' and that is right - the experience that you gave, the experience I gave if we can share our interest, our values, our experiences, then we would create an everlasting environment. [ref 16/13]

Kaitiakitanga practices involved day-to-day roles and responsibilities associated with whakapapa connections; whānau had an obligation to contribute and to set an example. The ahi kā were relied on heavily to fulfill kaitiaki roles. Some said that, although kaitiakitanga was talked about a lot nowadays, it was not practised to the same extent and was therefore not being handed down. Practices required combined efforts and a common interest and understanding of issues.

...the responsibility to ensure that we protect and we teach others ... we fight for those things that are right to be handed down from our tūpuna and so we are able to take care of our responsibilities as kaitiaki as ahi kā of those things ... that's where your oranga comes from those taonga that have been handed down, he tino taonga te roto o Ōmāpere āe ... [ref 4/11]

...it means everything to me personally, and it teaches hopefully the aroha to one another to everything ... we're the kaitiaki of the taiao and see that everyone has the same towards our environment ... te aroha, tētahi ki tētahi because that's where the kaitiaki comes from it's a caring and the loving of one another. Ko te kaitiaki aroha tētahi ki tētahi ... [ref 2/4]

Rituals, karakia and tikanga involved in gathering kai were a form of kaitiaki practice that also provided a process for passing on knowledge. This and local knowledge were of the utmost importance to safety on the harbour and ensuring fish would be caught. The tides, the moon and the weather determined when and what could be done.

In the morning before our parents and grandparents went out on the water they would perform their rituals as they have been for generations before they went on the water and it is slightly different from the prayers that we give today, they're asking their god Tangaroa to give them a safe journey and to open their cupboards to them and for them to respect that all the way there and all the way back, as soon as they got to the beach they will perform the ritual of thanksgiving. [ref 16/7]

When Mum and them used to say we're going to the creek tonight I would go oh ok, and then I went with them one night then I practically went with them every night, I used to go down there all dressed up and I would go "come on" and they go "no can't go now ... no good now we're leaving [not going] tonight because the full moon ... "
[ref 1/5]

Whānau talked about 'sustainable take' and practices they were taught and adhered to around gathering kai. These involved knowing the seasons, when kai was flavoursome or fat or mature, understanding rāhui, and knowing the breeding cycles of species to ensure they weren't interfered with.

...rāhui could be applied to any kind of environment. It is setting aside, it's a no-go zone, it's that sort of thing like if we have a problem for a particular oysters or for pipi they're not growing or something is wrong with them we put a rāhui in and it usually last for two years ... help it come back, get its mauri back ... If we make it sick and keep making it sick then at the end of the day that whenua is not going to sustain and what have we got left and who have we got to blame, ourselves. [ref 16/12]

The enhancing of our kai moana, making sure we [are] taking the right size fish, making sure we are not taking the breeders so we got to put them back and all that sort of thing, it is all making sure that our environment is sustainable ... which means there is going to be kai there for our mokos ... [ref 16/11]

Another practice discussed by whanau related to looking after produce and seeds; sorting produce at harvest time for different uses and ensuring there was seed for the next planting season and that nothing was wasted.

You know on the gardens when we dig our stuff up, the rīwai, the kūmara, you spent days on the gardens sorting them out, you know kōmari that is what we called it, you kōmari; the ones that would last a long time and the ones to the animals, and the ones to give away because they're too bloody big, then the ones you keep for planting. There is a lot of things you got to learn as you go along and afterwards after you been through it a few times it just comes natural, not a problem you could do it in your sleep. [ref 7/13]

Multiple roles and responsibilities ...ko te maha o ngā pōtae... [ref 4/2]

Throughout the interviews individuals and whānau groups were identified as having particular expertise and undertaking various roles and responsibilities. This meant that the community worked as a collective system and highlighted the importance of local knowledge; using it, holding onto it, and passing it on. Roles and responsibilities were also intertwined with kaitiakitanga. They involved all ages; for example, there were kaumātua/koroua/kuia roles in all settings (home, marae, community) and young people's roles working 'at the back' at the marae and at home caring for younger siblings and helping with daily chores. Whānau were supported in-kind by sharing kai and helping each other with seasonal gardening and farm work. There was a tikanga attached to every role.

Tikanga is the one to teach you, tikanga is the boss, tikanga is the one to rope you back. You work at the back of the marae and you start working from there ... Even the boys had to learn that, work from the back to the front ... the boys got to learn their whakaheke, they got to know about the urupā. There is a lot of learning in that it is not easy you know. ... for the men at the back to the cemetery, for the woman is at the back there and then ... the kaikaranga that is all tikanga, the kaikaranga, learn how to do the photos. Then they [the grave diggers] have to go out with ah one that knows which whānau go over there because that is their line, they have to go in their right line [in the urupā]. [ref 18/34]

Sometimes whānau members were groomed and prepared for roles, sometimes the roles were picked up as whānau members passed on, and at other times it was about stepping up when needed, regardless of preparedness.

...we had to go along to the marae and help, we [young people] were the workers there, like cleaning up and doing the dishes, we had to anyway we had no choice. Yes everyone played their role at the marae, make no mistake about that one. And even today our kids are still following that pattern. Now they call it 'hospitality' ... it was a part of our lives ... [ref 18/33]

...they were very well manicured to their role. Definitely. Everybody had a part to play and they were obligated to play that part ... [ref 13/8]

Individuals and whānau with specific knowledge and expertise were known within the community. There were the kai gatherers and hunters who knew the landscape well and the best places and times to go for kai, the gardeners, the bushmen, the river people, the harbour people, the tuna people, the whitebaiters, the jam makers, and the hāngī makers. Whānau knew to take heed of what they had to say; they were the teachers and kept everyone safe.

Celia Pōmare's parents they were great fishermen for the marae and Bill Howard, yes they were great fishermen for the hui and the other one was Dune and Julie, the smoked fish ... when they have hui they supplied the maraes with fish ... [ref 18/21]

...they're hunter-gathers those one[s] and they go up the bush, they go down the creek, they go everywhere to do food. Lovey, she is another one she did a lot of eeling down the creek ... [ref 1/5]

They were the head, Taupuhi and them, they were our head gatherers. They would make us go down behind the cemetery and gather taraire. We would say to Taupuhi "is it alright Koro?" and he would say "Yes, down there you can gather food". [ref 4/3]

Whānau that had been encouraged to leave Uta-kura to pursue other opportunities often felt aroha for the ahi kā whānau that they left behind knowing that there were only a few to pick up the daily responsibilities.

Well ahi kā responsibility is just, it's the obligation that we through whakapapa are endowed to, and I've always known that since I was young ... my grandmother sent me away when I was 30 ... I sort of had an idea of what she meant "you have to go, you have to leave, you have to go do something" ... that's the makeup of the commitment ... it is massive, it's massive, but it's not a job, it's an obligation ... It has to be done ... it's who we are and it's what we have to go to ... [ref 13/10]

Even whānau not living in Uta-kura still had obligations to contribute to home and the marae. Many whānau showed a huge commitment by fundraising for ongoing projects as well as regularly travelling home to support whānau and events; these were important activities in staying connected with whānau. One whānau member described his fundraising effort in Auckland to get lights for the marae. This was not only about raising money to improve marae amenities, it was about whanaungatanga, socialising and working together as whānau while living away from home.

Well we lived in Auckland almost all our lives but we kept coming home here, well like, when things were happening here. Our grandmother on our Makiri side, she wanted to come back and rebuild Mataitaua you know in those days. We used to come home every weekend to fix Mataitaua up you know ... we used to come back and do work on the marae that was way back in the 50s or 60s. [ref 11/3]

I used to run beer clubs in Auckland aye to make money, I used to spend a lot of time trying to make bloody money for that marae. You know in those days a pound was a lot of money, a lot of money aye I think we made a thousand pound. Well next thing you know we had lights at home for our marae. We got three benzene lamps - we had one over the top of the coffin about a third way up and one down by the door. We used to have a rope to go through like a pulley on the ceiling and it use to be tied to the wall and you know sometimes in the night when it gets a bit dim whoever is closest to it lets the light down and then pumps it up you know and pull it up again. [ref 12/2]

Passing on knowledge, teaching and learning

Methods of teaching and learning methods and passing on knowledge was throughout throughout the interviews. The methods were largely informal and generally required the right moment; sometimes it was by story-telling, other times it was about 'doing' and practical experience. Eeling seemed to provide the ideal opportunity for sharing across the generations. It was especially important that the younger ones knew how to get a feed.

I can remember nana saying there was about 13 different species of tuna. There was one that had fangs and another one that had whiskers and another with horns there was quite a variety ... mum she would be the one to name them all. ... bush eels ...

was a black eel very long and very fat, then you got the short eel. We used to catch them at the back there at the back of the farm in that river and then the Austin Creek, there tuna was not so big they had the grey belly. [ref 6/4]

...our kids ... the mokos they go down and set the nets ... over Christmas when we had all the mokos here and my son and all his kids came up so that is what they did, they spent most of their time at the creek eeling bringing it home ... They are starting to go out and get kai from the creek now ... [ref 1/5]

With many whānau living away from Utakura for a long time, some for several generations, coupled with the river being polluted and out of action during the last 20 years, whānau were increasingly unable to experience the taiao, or learn and pass on knowledge. Some older people said it was very hard to teach and learn about tuna, for example when it could not be done in a practical way - as part of the experience of 'going eeling'. They expressed sadness about the situation and said the same applied to gardening.

...they [the moko] don't know nothing they think the kūmara comes from the shop not from the whenua aye ... We are losing things fast for our tamariki ... Where are our kaumātua, kei hea rātou? ... It has a lot to offer, Utakura we just need as people to get more closer than apart ... it is not about the dollar that gets us closer it is about sharing our whakaaro aye and agreeing instead of disagreeing ... I just want everybody to sit together ... just to sit down and talk because right now it is our generation, there is no kuia and kaumātua ... There is only us now it is up to us to make the turn don't wait for Hone Harawira, I don't want to wait ... [ref 20/5]

...it [tuna] was a source of teaching our young ones ... like how to get the kai. Now we can't do that unless we go out of our area. You can catch them [tuna] but what is the point of catching them if you can't eat them when the water went funny it lost everybody's attention really. [ref 6/3]

One kuia said there were things that could only be taught back on the whenua and that mokopuna needed to come home to learn and to experience.

Ah, the only thing I can say is that as each one of us tell our stories about our rohe of Utakura ... our mokopuna they need to come back and learn, they got to hīkoi with it, no use sitting up there in Auckland talking about it, no they got to come back and feel it ... be a part of it ... [ref 18/23]

Kuia and koroua drew on whakapapa to the land, and their histories and experiences to pass on environmental knowledge. There was a definite hunger for knowledge about the local environment, and a feeling that it was everyone's responsibility to share what they knew. No one knew everything, but everyone interviewed had something to share that related to the environment and wellbeing. One person said that her teachers varied "...my gran, or maybe my aunty next door or somebody up the track" [ref 5/5], indicating that everyone had a role to play. It was becoming more and more important that whānau were prepared to pass on what they knew, especially in today's world with changing priorities.

...[we] are people of the sea we know our waters inside out, we know where our fishing grounds are, we know when to go out and when not to go out and which time

of the season to get which kai from where, that knowledge we pass down from generation to generation it has been passed down to me, I pass it to my children ... [ref 16/5]

...you had to be aware and listen to your parents tell you, "not to go fishing when the tide is coming in because that is when the fish are feeding and they eat all the rubbish in the river" and you get home with a fish that's full of rubbish. ... you'd get up in the morning and mum would say "where do [think] you're going ... it's too late the tide is already coming in and you can't go fishing!" ... what they said was sensible ... we may not have thought so at the time. [ref 5/7]

There were now fewer people who knew about the old practices and ways of life and some whānau were frustrated that some did not see its importance.

I still got a home in Auckland ... I used to plant fruit trees and my girl and her husband was down the road further they had a home, and the home they bought had an orchard on their back lawn. And one time I went down and the trees were chopped down and I said "what the bloody hell is the matter with you fellas?" "Ah too much work". When people go like that you can't teach them. [ref 7/16]

The need for education and leadership to ensure environmental impacts of current practices were understood was highlighted.

...well you know the old people in those days they would fill up a bucket or 2 buckets [of water] you know that was all they needed. Not like today they will stick a bloody pump into it and run in it dry and won't come back. [ref 12/6]

Some of the young people in the community enjoyed the learning opportunities available through this research project and expressed a heightened interest in the environment. It was particularly heartening to see just how much could be learned in such a short time through sharing information and experiences.

...it is lovely to go and sit up there and listen and look at the maps and the differences in the fish and the tuna ... the lake is getting better. ... there is more aroha being put in to the lake and the rivers, there has been a lot of planting going on ... environmental wānanga and there is a nursery up Te Weranga for the native seedlings ... they help clean up the lake ... [ref 15/8]

Summary

- Although not necessarily a commonly used term in the past, whānau could articulate a range of understandings of kaitiakitanga.
- People described the purpose of kaitiakitanga as well as kaitiakitanga practices.
- Kaitiakitanga was embedded in daily routine, a practical thing that was generally an intrinsic part of being Māori and thinking Māori.
- Kaitiakitanga included:
 - Looking after and caring for all aspects of being
 - Ensuring sustainable harvest of kai may involve rāhui
 - Protecting seed and kai species
 - Passing on local knowledge
- Individuals and whānau had particular expertise and took on various roles and responsibilities.
 - They were sometimes groomed for roles, sometimes filled roles as whānau members passed on and sometimes just had to step up to fulfil obligations
 - Roles were based on kotahitanga, people working together as a team
 - There were known kai gatherers, river people, bush people, gardeners, preservers, whitebaiters, hāngī makers
- The ahi kā were relied upon for the day to day kaitiakitanga roles.
- Whānau living away still found ways of connecting and contributing to 'home'.
- Knowledge was passed down in casual and informal ways through stories and hands on experience.
- All age groups had something to offer - it was everyone's responsibility to share what they knew.
- It was hard to pass on knowledge about a particular location without being there. Not being able to use the river for so long took away the ideal situations and opportunities for this to happen.
- Whakapapa to the land and local histories was often the starting point for transferring knowledge.

Signs of environmental change and improvement

Increased interest and awareness

There was a clear interest in, and awareness of, environmental matters and a number of changes in thinking evident among the people interviewed. Having more knowledge about species resulted in people being more aware of practices they could adopt to ensure sustainability, for example understanding the life cycle of tuna changed practices around which would be eaten, and which would be released. In the past there had been little thought for the large female tuna as the breeders – if they were big, they were best, and they were eaten. It is now common to hear tuna fishers spreading the word about not eating the big female tuna

but instead leaving them to breed. People were more aware of the water-ways and their importance in the wider ecosystem, particularly the way in which a variety of species contributed to the health of water. Current environmental initiatives made an impact; whānau now responded to environmental issues that they previously may not have, were leading by example and taking ownership.

...we are very environmentally aware - like if we are driving to Ōkaihau through Utaura and we see the cows are down there [in the river] then we feel like we are the environmental police like "excuse me there is a rāhui on this river". ... so if you got your whanaunga who has decided he doesn't want to take this car to the wreckers anymore and he wants to chuck it in the river because that is the only place out of the way, then somebody has to be big enough to go down and say "hey look bro you can't do that because you are going to kill our river" ... The day's over ... of drinking my beer and I will throw my bottle into the trees, those stuff are no more, somebody has to pick it up somewhere down the track. [ref 16/12]

More notice was being taken of the waterways. People developed their own environmental standards; they noted any changes and understood what they meant.

...as I drive past to see if the water is still green or if it is starting to come right whether the algae, the algae which is a problem up in Ōmāpere ... those are for me markers to tell me whether things are coming right or things are getting worse ... [ref 16/2]

The return of species

As frogs are extremely susceptible to poor environmental conditions, their return to the valley after an absence of 15 years or more was seen as a sign that the environment was healing; it was a welcome sound in the valley.

...in the last maybe three to four years I have noticed the frogs more. ... autumn time when it is sort of damp and there would be frogs jumping up ... jumping toward the creek areas and it was a big buzz because I hadn't seen frogs before jumping around so freely ... I see them all the time now and sometimes we even catch them for the kids to look at them ... seeing those creatures around yeah it is telling us that the water is getting better and it is more healthier for the animals to grow and the species to live. [ref 15/10]

...that's all we used to hear up at the farm was the sound of the frogs every night ... when you see nature coming back to what it should be well then must be doing a difference there. [ref 19/8]

Eating from the river again

The fact that whānau were now starting to gather kai from the local waterways clearly indicated that stocks were returning and that the species were in a healthy condition. All the people interviewed had noticed positive changes and were particularly pleased to be able to eat tuna from the river again; this was a major step forward.

It is good for our community now that the water is clean ... Yes it is coming back to life every year. ... There is a lot of food in the bushes and in the moana and in the awa that we are eating that we weren't eating five to ten years ago. [ref 15/3]

Taking charge of the environment

Environmental change and restoration required leadership, people to work together, commitment, consistent messages across hapū and the rohe, getting the whole whānau on board especially younger members, and a holistic approach to connect all aspects of the environment with the wellbeing of the people. One person took the need to take change of environmental issues very seriously saying:

"...if the whenua isn't going to make it then we won't make it either". [ref 18/3]

Better understanding of the ecosystem and catchments helped people to make good environmental decisions about protecting what they had.

Today we are as conscious of providing a good enough environment as we can ... and try and minimise the damage that we're doing to Papatūānuku. Water is a source, man will not live without water, so we need to always protect those values that sustain our life. [ref 16/3]

...the way they [land owners] have fenced around these waterways now is great. The rivers are starting to look good, the pollution from the cows is starting is getting less, more and more people are getting prosecuted and getting fined big money [for environmental breaches] and it is clear to other people that they need to clean their shit up too. [ref 16/11]

Strengths in sharing, supporting and learning with whānau from neighbouring areas who were often grappling with similar environmental issues was also been identified.

...we are sea people over this side, we don't eat tuna a lot but occasionally we do but not as much as the people inland but that still don't mean to say that we don't try to create a better environment for the tuna ... we all got to hold hands regardless of where we are living because we do suffer from the same problems ... you will find a common thread ... a wealth of experience in terms of knitting all these things together ... most important having the backing of your hapū and your whānau. ... environment management is not just about this hapū in this little square here, it is all of the hapū all over the place ... [ref 16/3]

There was nervousness expressed about the level of involvement from outside agencies in local environmental matters. Participants said that the breakdown of rangatiratanga over generations allowed environmental management to be led by outside agencies. However, this

was starting to change as more local groups were taking control, and more were engaged in environmental management. Whānau in leadership roles were not only beneficial to the wider community but also in improving the understanding of cultural matters by outside agencies.

...we have to work very hard at it ... work hand in hand with our Pākehā brothers and sisters whether the council, as you say NIWA has been very useful ... we will never let them dominate us but they do have the tools to help us be better kaitiaki ... everybody wants to have a good environment and everybody wants to have a clean environment ... an environment that is going to be good for our children and mokopuna when they grow up. [ref 16/11]

Another view challenged whānau to start critiquing what they did and what they saw and to act with authority rather than sit back and wait for others to make decisions for them.

...we are so caught up in the colonised way of thinking ... it's created so many problems and we gotta stop thinking that somebody else has got the answers for us ... the answer is within you, if you look for the huarahi in your heart and soul you'll find it ... you don't need to look to the sky and think gods up there, you see god within yourself āe āe, kei roto i a koe, ngā mea katoa pai te huarahi te oranga, te aroha me ngā mea pai hei oranga, hei oranga mō te whenua me ngā taonga he oranga hoki mō tātou te tangata, me ngā mea katoa. ... we can't wait for the regional council ... kia tūpato ... always look back and reflect and learn, we've stopped being critical, we no longer know how to be critical about ourselves ... and we need to again ... I remember when the old people were around they were critical about things aye, and they were very tika about what they said ... you were pono and tika to what you believed in and we got to make sure that we nurture that thing, that fire that's still in us ... [ref 4/13]

Summary

- People in the community were now more aware of environmental issues, the ecosystem and ways in which they could help.
- Whānau had more awareness about the species that contribute to water-way health.
- More notice was being taken of the water-ways and indicators of its health.
- Whānau had their own markers of environmental health and change.
- The return of frogs was a sign that the environment was healing.
- Having tuna on the table was a key indicator that the water quality had improved; they tuna were in a healthy condition and stocks were more plentiful.
- A catchment-wide, holistic approach had to be taken to make a difference.
- Environmental change and restoration required strong leadership and for people to work together.
- The breakdown of rangatiratanga over generations allowed environmental management to be led by outside agencies, but with more local initiatives this was starting to change.

Looking ahead

The environment was at the forefront of many shared aspirations; the river, in particular, was regarded as a mechanism to bring about positive change. Most people interviewed acknowledged that a healthy river was not only a kai source, but played an important social role in the health and wellbeing of the people. It was a cornerstone for holistic health from a Māori perspective. Restoration of the environment, therefore, would contribute greatly to physical, mental, and emotional wellbeing.

...if that [the river] was back ... there would be a gathering place ... I think it would draw the community back as one people ... The only gathering hole now available is the pub - you can't take children there ... [the] Uakura [river] ... it brought people together. ... as a community, as a whānau ... I reckon if that creek was clean it would benefit our children ... it would bring them all closer together you know. [ref 6/5]

To preserve the mauri of our environment ... the trees, whether it be the water, the birds, those things that sustain our life ... it is not something new because it is a practice that our tūpuna have done for a very long time. [ref 16/12]

Everything's got a heart and a soul and a life and if we respect that and treat that everything from a rock, to a tree, to a bird, it has the same, the same mauri then we're not gonna takahia the mana of those things aye ... [ref 4/14]

Leading by example was linked with health and environmental change. Whānau suggested a return to, what they termed as, the basics as a starting point to revive ways of working together, making decisions to benefit the community, and taking responsibility for restoration.

We in our time have to set that example ... the planting of native [species] whether they be around the riparian side of Ōmāpere or even on our land ... enhance our environment to bring the birds back that were once there, to create a habitat so that the birds and human can live together, so that they can utilise the kai that comes off the trees or the plants the roots, our tuna our kēwai all of these things that it is our responsibility to bring life back, we took the life away from them, we humans have the responsibility to make it right for them again ... [ref 16/3]

Whānau aspired to rekindling some of the old ways and old teachings that they were brought up with and that they still considered relevant for the younger generations today; environmental practices, collective ways of living.

Ko te tuatahi, me hoki tātou ki ngā tikanga o rātou mā, ki ngā kaupapa o rātou mā, tino rerekē hoki ngā tikanga o te ao Māori i tēnei wā, i tēnei wā tonu, ahā ka whakaaro tātou i whakaaro tauīwi, me hoki tātou ki ngā tikanga o rātou mā, ki ngā kaupapa o rātou mā, ko tērā te mea tuatahi, me whakaaro mātou e pā ana ki te mahi o te ahi kā, he aha te mahi o te ahi kā, he aha te mahi o te kaitiakitanga, me whakaaro tātou, me haere ki te noho i te taha o te awa, me whakarongo ki ngā tohu, ki ngā kōrero mai te roto mai o rātou kōrero mai ki a mātou, ki reira hoki te huarahi, ko te tuatahi, me whakaaro Māori. [ref 4/13]

(translation: Let's return to the customs of the old, to the things they held dear, Māori society is very different now, and still we think foreign, we need to return to the old ways of Māori world view. That's the first thing. We need to think about our roles as ahi kā and what is our roles as ahi kā, we need to sit on the side of the river and listen to the signs, within the signs are the clues and kōrero, for that is where the road for us is; to think Māori.)

...the best scenario would be to have the hapū lifestyle, purely hapū lifestyle, where there is a marae, and there is houses available, where families can come and live the lifestyle of hapū, and provide [based on] manaaki, tiaki, the tikanga and kawa ... and not live our individual lifestyles. ... live as a collective, we think as a collective, we mahi as a collective and our tikanga and our kawa is about our collective, it's not about individuals ... we can create that lifestyle around them ... [ref 13/11]

Some believed that, although tikanga didn't change, it needed to be applied differently in current day situations. They were realistic about the realities and challenges of te ao hurihuri.

...I would like it to go back to the old days aye but that is impossible because everything has changed, and why it's changing - the dollar sign, that's the controlling thing of everything which is terrible. [ref 7/13]

The older people centred on what they wanted for their mokopuna; to have some of the life experiences they had in earlier times, to turn to their own knowledge-base for answers, to feel a sense of identity and pride, and to know a different pace of life with plenty of aroha, manaaki and kai.

...aye that's what I like for my mokopuna, the way it was when I was young, we had everything, we had beautiful gardens, beautiful people ... they had the love for one another, wasn't any money just aroha and kai. [ref 2/6]

We need to make sure that all our mokopuna ... can go out here throw a line out and catch a kai ... [ref 16/6]

The general feeling was that the community needed more people in order to return to the vibrant place that it once was. Currently, there were no opportunities to attract whānau home. The lack of employment was a sore point for some who expected the Utakura 7 Incorporation forest (leased out since the early 1970s) to generate employment and provide opportunities for their children. Land blocks were no longer viable as farms and this resulted in some whānau giving up caring for or using their lands.

...it's everybody's dream we like to see that place ah populated again but because of the economy turndown it's not viable for anyone to live there ... it's just impossible ... there's no work ... [ref 8/12]

Many aspired to bring their whānau home to work the land; however, money for development was scarce and it was difficult for whānau to make a living from small land holdings. It also saddened and frustrated participants that there were young people in the community doing

nothing and yet there were numerous projects and jobs that they could do that would benefit whānau and the community, but the system didn't allow for this to happen.

I see the gorse at the back growing up again. There are so many young people down there and they have nothing to do and yet there is plenty of work there. You know I look at my own and I used to tell them you are younger than me go and do some work down there ... they want money ... They have got to learn to do the job properly and don't go down there and smoke your wimpy weed that is what I used to tell them. [ref 18/35]

...the land isn't doing what I hoped it will do. You know if the land was prosperous and fruitful then we may have more people at home. ... it's not about business either ... people are always talking about the economics and that and economics does play a part, but it's only a part ... [ref 13/10]

The scheduled urupā cleaning weekends each year had become a model for working collectively, even if whānau lived away. Although the kaupapa was first and foremost about sharing the work load and responsibility of caring for the urupā, the commitment to returning home was also about exercising kaitiakitanga, an opportunity for whānau and hapū planning, and to connect and re-connect whānau with their roots.

...three times a year [March, July and November] the community and everyone that is from home and that come back from Auckland, even Australia they come back and clean, we would all clean the cemeteries ... and to fellowship and eat and we would talk about the maraes and the unveilings and what is going to happen during the year ... [ref 15/12]

A lack of understanding between the generations was expressed. Older people in particular felt sad about the situation, which wasn't conducive to revitalising a community and the environment.

...they [my mokopuna] need to come back and affiliate so they know what they're walking with ... all our young ones, they are all stuck up there [in the city] or they have gone overseas ... they are all over the place. So the answer lies with them ... they don't speak our language and we don't speak their language either. Everybody is saying to respect them, where is the respect, they don't respect us, they trample all over us. They can't even look after their selves, they can't look after old people because they don't know how to ... [ref 18/29]

Women were seen as the change agents by one male interviewed.

...I say the kuia, well all the women here in the valley they can make a change ... we can't do it as men you know that, because we can't sit down and talk, we got to have a bottle in the hand that is the way we talk but that is not how the tūpuna talk that is why I am saying the women need to make that change for us there is enough wāhine in the valley to change that, they out-number the men ... [ref 20/13]

A lack of infrastructure affected progress and one person interviewed expressed how disheartening this was, especially the thought of just passing the problems to the next generation. It was time for doing rather than just talking.

...the infrastructure that we've provided hasn't progressed. ... everybody's aroha for our marae and for our valley ... the valley was meant to provide something more than what we've got. ... that's the dilemma that we in our generation have to face. ... we have to try and figure out how the hell are we gonna make it better otherwise we just gonna have to hand it off to the next generation. ... to fix up or to make sense of. [ref 13/4]

The way in which governments and their policies impacted on Utakura was highlighted throughout the interviews. Whānau were urged to be more active and politically astute as times get tough. One participant urged whānau to be more involved.

All your fellas Aunties and Uncles they know what hard life was you know and they try and pass it down to the mokopuna ... how we are now is because of the way the government is going. ... people need to wake up ... [ref 8/9]

Summary

- Aspirations included:
 - Rekindling some of the old ways and applying to current-day issues
 - Ensuring mokopuna get to experience the environment in ways that strengthen identity and pride
 - The river once again being the pou for the health and wellbeing of the valley; social, kai
- The environment was seen as a mechanism that could enhance cultural, physical, mental and emotional wellbeing for whānau and the community.
- Developing leadership and becoming involved in local and central government was urged.
- Whānau needed to return home to re-populate and revitalise the community.
- Occasions such as urupā cleaning helped to connect and reconnect whānau with their roots.
- There was plenty of work that needed doing, but no paid employment.

Conclusion

The report records Utakura whānau stories and understandings of their environment. It captures their voices, at least in fragments, and collectively articulates great wisdom and experience. Whānau insights that looked to the past to provide context for current environmental issues and solutions to existing challenges were inspirational. They demonstrate the intrinsic connectedness of the whenua, the awa, the moana and tangata as a basis for environmental restoration.

Participants represented a cross-section of whānau with whakapapa to Utakura and who had and/or were still living there. They shared their experiences, those of their tūpuna, and their aspirations for mokopuna and future generations.

This study has been an effort to hear and celebrate the knowledge held by members of the communities of the Utakura River and it is clear that, in so many different ways, the lives of the people and the flow of the waters are inseparable. The voices recorded and honoured here are the voices of the river and show the love, concern and commitment to maintain kaitiakitanga values and roles in that on-going relationship.

The knowledge represented here is also important to those concerned with the sustainable future of the ecosystems of Lake Ōmāpere, Utakura and indeed Hokianga. The stories and accounts offered by the old people in particular emphasise yet again ways in which in living memory these systems were inseparable from each other and from the everyday life of Māori communities. This deep seated relational bond was vital to the reciprocity between te taiao and the people that drove the kaitiaki value system that produced the practices of long ago and the revitalisation of the present and aspirations for the future.

Participants provided considerable detail in their rich and varied stories and we have for the most part not tried to interpret what we were told, but left the voices intact to speak for their river, their community and their way of life. Obviously we have made the selections of their texts and assembled them in ways that seemed to us to speak on common themes, emphasising what they share rather than whatever differences they might have. The closest we come to researcher voice in this report is the bullet point summaries that conclude each chapter but these are intended as indicative only, a kind of 'reader's guide' rather than an effort to impose our understandings. We have done this to reflect our wider understanding that the narratives proffered are 'of the river' and belong to that entity, place and community. As such we hope that the report with its central story of the river and accompanying summaries of companion studies is of value to the people of the Utakura Valley who gave so much in word, thought and deed to express their love, respect and awe for their awa, whenua and moana. We believe that this heartfelt, rewarding, sometimes agonising commitment is a message that reaches beyond the valley, out into the surrounding lands, to the cities, the corridors of power, to the wider world where indigenous people struggle against diverse forces of development and exploitation to preserve their places, identities and ways of life. They are reminding us in impressive and persuasive ways of the point that the state of the globe, the integrity of 'humans in nature' and thereby all our futures, depend upon the local relationships, values, beliefs and identities that we forge with our home environments.

PART 2 - COMPANION STUDIES

Alongside the Utakura/Ōmāpere social research, several other key studies were carried out within the ambit of the funding. These included baseline water quality research by team members, four studies of species and water quality from research partner NIWA, a demographic analysis from the International Indigenous Demography Centre, GIS mapping, video and photography, and a paper about Lake Ōmāpere restoration work by team members. Here we provide very brief summaries of these works along with references to the reports that they generated, as a way of contextualising and complementing the social/cultural work in the body of this monograph. What follows is a brief account of each of the contributing projects.

Utakura Cultural Health Index (UCHI) monitoring

Throughout the research period the Utakura Cultural Health Index, adapted from components of the Cultural Health Index (CHI) model (Tipa & Teirney, 2006), and the Stream Health Monitoring and Assessment Kit (SHMAK, developed by NIWA), was used to gather baseline data and monitor water quality.

A template developed to record site data and observations about the mauri, history and significance to mana whenua, species present (plant, fish, bird, other; native, exotic and pest, invertebrates and periphyton), provided indications of the health of the waterways and adjoining whenua. GPS was used to accurately and consistently identify locations for future monitoring. Seasonal variations, including weather conditions and events were also noted.

Nine sites were selected and monitored two-three times each year. This provided a range of situations and adjoining land-use along the approximate 25km of the Utakura River, from the outlet of Lake Ōmāpere to Paremata near the entrance to the Hokianga Harbour. The monitoring sites were:

- Lake Ōmāpere outlet
- Waiharakeke tributary at bridge
- Te Waihoanga tributary at bridge
- Utakura River at Harrisons bridge
- Mangataraire tributary at bridge
- Waikirikiri tributary
- Te Weranga tributary
- Utakura River at Ōkāka bridge
- Utakura River at Paremata (inter-tidal)

Generally, the state of the waterways mirrored the state of the surrounding land, so conditions varied considerably from the higher ground to the valley floor. Good water flow and river-bank vegetation coverage helped to keep the water cool and provided ideal conditions for a healthy mix of species. In lowland areas, in particular, there were sections of the waterways with considerable erosion, stock access, and a lack of vegetation or buffers evident. Monitoring highlighted the crucial role that the Utakura River tributaries play in restoration efforts. Most were in good condition; given the impact of the tributary water entering the main stem it appears that this must mitigate to some extent the poorer quality of the water from Lake Ōmāpere entering the Utakura River.

Tuna monitoring was carried out at regular intervals at Lake Ōmāpere and tributary drains, the Utakura river at Harrison's bridge, Griffin's bridge, Te Ripi, Meheke, and Mangataraire, Okaka (3 sites), and Paremata tributary culvert. Fyke nets, baited with sachets of cat food and set overnight were routinely used; on two occasions in shallow waters electric fishing was used.

Once caught, tuna were anaesthetised to enable recordings of species, weight, length and condition. Depending on the size of the catch some of the tuna would then be returned to the water within a few minutes, others selected to have the otoliths removed and sent to a laboratory for ageing, or kept for eating. Of the 195 tuna caught and processed, 132 were short-fin and 63 long-fin. It is noted that one-third of the short-fin species were caught at one site using the electric fishing method which was more effective for catching smaller tuna. The total catch showed a mix of sizes, indicating a broad age range and a healthy tuna population.

Good numbers of other species were also found. Particularly plentiful were kēwai and inanga, common bully and redfin bully, and there were small numbers of herring, mullet, smelt, banded kōaro/ kōkopu, and shrimp. The species found suggests an improvement in river water quality. However, the presence of the pest fish gambusia affinis (mosquitofish), in the lower reaches of the river was a concern as they are a threat to the juvenile native species trying to re-establish. Goldfish were found and, although considered a pest by most, some whānau ate them.

The monitoring process raised awareness and a keen interest in what could be learned about the environment through observation and a few simple tests. It strengthened understanding about the connection between water quality and the viability of eco systems and provided an opportunity for people to gather together at the sites.

Geographic Information Systems (GIS) mapping

Abdul Nishar, 2012 Masters thesis: The relevance and applicability of participatory geographic information for Maori development – a case study of Te Roopu Taiao o Utakura.

GIS mapping provided an opportunity to capture comprehensive local knowledge, record and present information from community elders, taiao workers, community members, and historical records in a meaningful way, as well as building skills and expertise, and strengthening knowledge, capacity and capability. A particular feature was mapping land ownership in the catchment, which highlighted the status of Māori ownership and provided a sense of access to sites and watersheds. GIS was applied in all avenues with a spatial component and contributed to the research project goal of exploring the interconnections between the health of the local people and the health of the freshwater environment and fisheries of the Utakura River.

Video and photography

Lloyd Latimer, Eyelight Productions

Video and photography were important tools of the project. Local film-maker Lloyd worked alongside the project to document events and progress. This proved to be a useful medium for recording and telling stories of environmental change, as well as helping to engage the community in environmental issues. It also led to a television documentary as part of the Matauranga Māori series, Where Native Science Meets the World, Scottie Productions, which aired in 2012.

Tuna population survey of Lake Ōmāpere and the Utakura River

Erica Williams, Jacque Boubée, Wakaiti Dalton, Remana Henwood, Irihapeti Morgan, Smith, J., Davidson, B.

NIWA Client Report: NFL08301, (2009). Link to report:

<http://waimaori.maori.nz/research/past-projects/Tuna-population-survey-of-Lake-Omapere-and-the-Utakura-River.htm>

Webpage link: <https://www.niwa.co.nz/te-k%C5%ABwaha/tuna-information-resource/case-studies/lake-omapere-and-the-utakura-river>

This Te Wai Māori-funded research provided the Lake Ōmāpere Trust and Ngāpuhi Fishers Limited with baseline information required to monitor and adaptively manage the long-term well-being of the Lake Ōmāpere tuna fishery.

A total of 929 (271 kg) tuna were captured during the survey, the majority (73%) from Lake Ōmāpere. Although both shortfin and longfin tuna were captured at 83% of the sites sampled, overall the numbers of longfin tuna were low. While shortfins dominated the catch from Lake Ōmāpere, longfins were more common in tributaries of the Utakura River.

The age distribution of both shortfin and longfin eels in Lake Ōmāpere and the Utakura River was similar, the majority ranging between 4 and 14 years of age. The median age (8 years) was the same for both species. Observations indicated that shortfin tuna growth in Lake Ōmāpere is amongst the highest recorded in New Zealand to date.

Length-weight relationships for Lake Ōmāpere and the Utakura River catchment indicated that longfins were heavier for their length than shortfins. However, the median length of the shortfins (525 mm) captured was greater than that of longfins (445 mm). In general, much smaller eels were captured in the Utakura River and the tributaries of the lake, being largely a reflection of the greater efficiency of electric fishing at capturing small eels.

The time needed for longfin females to reach the minimum reproductive size in these catchments is estimated to be about 13 years. It appears that there are very few eels left (both longfin and shortfin) in the Lake Ōmāpere and Utakura River catchment that are of the large size preferred for customary take. But perhaps of more concern is that these records also indicate that very few large females are supported by the catchment and contribute to the spawning stock. The results emphasise not only the vulnerability of the population to fishing

pressure but also i that management measures taken nationwide could take decades to show results.

The research increased local understanding of the tuna population in the Lake Ōmāpere and Utakura River catchment, and provided valuable baseline of information for monitoring long term trends in tuna populations.

Metals in Tuna from the Lake Ōmāpere catchment: A preliminary assessment.

Williams, E. K., Stewart, M., Boubée, J. A.T., Dalton, W.

NIWA client report: HAM2012-011, January (2012)

Copy of report available from: Erica.Williams@niwa.co.nz

This scoping study provided the Lake Ōmāpere/Utakura community with a better understanding of the potential risks (if any) of consuming tuna gathered from the Lake Ōmāpere and Utakura River catchment. The key components of the study included:

- Determining levels of selected metals in tuna from the Lake Ōmāpere/Utakura River catchment, and
- Quantifying the potential health risk to tangata whenua eating tuna from the Lake Ōmāpere/Utakura River catchment.

Of the 12 metals that were analysed from four sites, seven were not detected in tuna from the Lake Ōmāpere/Utakura River catchment (antimony, bismuth, boron, cadmium, lead, silver and tin). Of the metals that were detected (arsenic, copper, mercury, nickel and zinc) none were higher than the standards and guidelines suggested in FSANZ (2011) for fish for human consumption.

The concentrations of metals in Ōmāpere/Utakura tuna were generally lower than those observed in tuna from around New Zealand. Overall, the results of the study highlighted that some metals known to be a risk to human health (e.g. mercury, arsenic and nickel) are present in Ōmāpere/Utakura tuna, albeit at low concentrations representing low risk, particularly when compared to similar studies undertaken around New Zealand. Based on current accepted food safety criteria, large quantities of tuna would need to be eaten to affect the long-term health of the Ōmāpere/Utakura community.

The tuna samples collected in this study have been preserved (at the NIWA Hamilton office) so that they are available if Te Roopu Taiao o Utakura requires analysis of further contaminants (e.g. pesticides) in the future.

Lake Ōmāpere Nutrient Budget

NIWA client report: HAM2012-030, March 2012
Verburg, P., Parshotam, A., Palliser, C.C. (2012)

A nutrient budget study used existing water quality data collected by the Northland Regional Council (NRC) between 1992 and 2010. Information about the lake was collated (depth, area) alongside what was known about water quality variables (water level and flow, nitrogen, phosphorus concentrations) to give a picture of the levels of nitrogen (N) and phosphorus (P) coming into the lake from the surrounding catchment (external loading, surface and groundwater), as well as from the lake sediments (internal loading).

Lake water quality information enabled a Trophic Level Index (TLI), which combines annual values of total nitrogen, total phosphorus, algal biomass and water clarity, to be determined. Using this index Lake Ōmāpere ranks number 103 out of 112 lakes that are monitored throughout the country, with an average TLI of 6.1, which puts it in with a group of hypertrophic degraded New Zealand lakes.

Key findings of the study included:

- Nearly half the water in the lake comes from direct rainfall on the lake surface.
- Residence time; the time it would take to drain the lake when it has the average volume is about seven months.
- External nutrient loading rate (per square meter of the lake) is not particularly high compared with other highly eutrophic lakes, but:
 - Because the lake is slowly flushed and very shallow the loading rate nevertheless results in a high trophic state
 - Therefore, compared to other lakes, it will be more difficult to reduce the nutrient loading to a level where Lake Ōmāpere is not eutrophic
- Highest nutrient inflows (external loading) are likely to be in the sub-catchments to the south east and the north of the lake.
- Nutrient concentrations in the lake are quite a bit higher than in the inflows from the catchment because of internal lake loads. The likely explanation for the high internal loading was that nutrients deposited in the sediments in the past are being recycled back into the water column either by release under anoxic (low oxygen) bottom water conditions and/or by re-suspension during windy conditions.
- Reduced concentrations of nitrogen and chlorophyll *a* since 2007 may be due in part to:
 - The result of fencing out stock, and riparian planting
 - A large amount being flushed out of the lake through the outlet
- The boom-bust cycle (observed since 1985); if the macrophyte versus phytoplankton dominated phases can be broken, and a reduction of more than 27% of the external phosphorus nutrient loads can be achieved, it may be possible to turn the lake into a permanently mesotrophic lake.

Population Dynamics of *Anguilla spp* in Lake Ōmāpere

Myrtle Sanson, 2012. (see Appendix 3)

This project was conducted by Myrtle as part of her Bachelor of Environmental Management studies at NorthTec. The research investigated the population dynamics of tuna in Lake Ōmāpere. Fyke nets were used to catch a total of 120 tuna, 117 of which were shortfin. Catch data was documented and provided growth and abundance information for each specie, and the removal of otoliths from a selection of shortfin tuna determined their ages. The findings confirmed that the growth rate of shortfin tuna in Lake Ōmāpere remained amongst the highest in New Zealand.

Mana Whenua Kaitiakitanga in Action: Restoring the Mauri of Lake Ōmāpere

Henwood, Wendy, Henwood, Remana (2011) AlterNative: 7(3), 220-232

Mana whenua, people with customary authority over land, have been grappling with the environmental collapse of Lake Ōmāpere. The situation is of immense significance locally and to Ngāpuhi-nui-tonu (Northland tribes and sub-tribes). Use of the lake resource is determined by the health of the lake; the health of the lake and the health of people are intertwined.

A restoration strategy was developed in 2005. This article provides some context for the key issues relating to the Lake Ōmāpere situation, discusses the community action approach taken and describes a climate of environmental mobilization where mana whenua knowledge and experiences are at the forefront of restoration. The account highlights the complex and multi-faceted nature of approaches to restore the ecological sustainability of these important waterways.

Utakura mā uta ki tai: A case study of population, people and place

Kukutai, Tahu. (2012). See Appendix 2.

Summary

- The relationship between the health of the environment and the health of the people is evident throughout this study. From the mid to late 19th century, the alienation of land and the deleterious effects of colonisation, had lasting negative impacts on population health. Nevertheless, Māori continued to seek education, foster employment opportunities, maintain cultivations – although with a shift from communal to individual-based modes – and engage in subsistence farming.
- The early to mid-20th century offered some hope of recovery but the limited opportunities to develop farming beyond very small scales, and the ongoing engagement with forestry, rendered Hokianga Māori vulnerable to exogenous shocks in terms of industry restructuring and economic downturns.
- The urban migration had a dramatic impact on Māori communities in the Hokianga. At a time when the Māori population generally was approaching growth rates now only seen in very underdeveloped countries, the Hokianga Māori population was in decline. Economically and demographically, the effects of these losses continue to be felt.

- Northland and, by extension, the Hokianga are often described in mainstream media and research as economically disadvantaged areas, with little appreciation of how current conditions were produced by major shifts that occurred in the past, which were driven by forces that lay beyond the control of communities, whānau, hapū and iwi.
- There is also a rich cultural legacy that remains to this day, but is rarely acknowledged in statistical reports. Thus, it is in the most disadvantaged areas of the broader Uta-kura catchment area that te reo Māori flourishes, and connections to iwi endure.

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Appendices

Appendix 1: Dissemination

Building a team around the research project created many additional opportunities to showcase and disseminate the research project at regional, national and international events. Te Roopu Taiao extended their knowledge and experience in the public health and environmental fields, and shared knowledge, ideas and experiences at several conferences. Team members presented or co-presented at:

Ngā Pae o Te Maramatanga; <i>International Indigenous Development Conference.</i>	<i>Healthy land, healthy people, from the local to the global.</i>	Auckland June 2012
Population Association of New Zealand Conference; <i>New Zealand's Demographic Futures: Where to from here?</i>	<i>Waterways and Wellbeing: a research project of great importance to a small rural population; discussed our approach to the research, and the outcomes to date.</i>	Auckland November 2011
The National Collaborating Centre for Aboriginal Health, (with support from the Canadian Institutes of Health Research); <i>Healthy Land, Healthy People gathering.</i>	An international eco-health exchange with indigenous Canadian people that showcased the research project and discussed indigenous health in relation to the environment, and in planning for future collaborations.	Vancouver, Canada October 2011
Māori Association of Social Science conference. <i>"Ma tau rourou, ma taku rourou - Working with Māori communities"</i>	Two joint presentations: <ul style="list-style-type: none"> <i>Working with Māori communities. A collaborative approach to environmental research; with Te Kūwaha (NIWA).</i> <i>Relationships; a research pathway; with the Whāriki Research group (Massey University) and Te Rūnanga o Te Rarawa.</i> 	Auckland December 2010
Freshwater Sciences and Hydrological Society conference.	A presentation with Te Kūwaha (NIWA) about a tuna survey carried out at Lake Ōmāpere.	Whāngarei November 2009

Other dissemination opportunities taken up by the group:

An invitation to make a documentary for the Māori TV series “Mātauranga Māori” about Māori and science. The half-hour programme went to air in August 2012.	Utakura April 2012
An interview with Te Wai Māori for a case study about successful community driven approaches for managing waterways and restoring health.	Kaikohe May 2011
Hosting ten international students at Mokouiarangi Marae for a week at as part of a national Catchment Care programme run by Conservation Volunteers New Zealand in partnership with Fonterra.	Utakura May 2010
Waiora Hokianga, a group made up of people involved with local community environmental health projects in the Hokianga. NGOs, individuals and government agencies meet regularly and provide a forum for sharing environmental ideas.	Ongoing
Utakura 7 Incorporation Annual General Meeting; the research is reported to the hui. This large land block in the Utakura Valley involving approximately 1000 mana whenua shareholders, borders the Utakura River in places. The Incorporation made a commitment to support local environmental restoration. It provided the materials for Te Roopu Taiao o Utakura to establish a native plant nursery on Incorporation land at Te Weranga.	Ongoing

Strategic relationships

Links with other groups have been an important component of the project. These links have provided other dissemination opportunities, a means of support, the ability to complement other environmental initiatives, and the opportunity to share knowledge and ideas. Collaborations include:

Lake Ōmāpere Trust and Lake Ōmāpere Project Management Group	Collaboration with the lake governance group and the working group who developed and implemented the Lake Ōmāpere restoration strategy is extremely important, given that the sole outlet of the lake is into the Utakura River.
Local farmers and landowners	Relationships were maintained with the local land-owners of monitoring sites. They were supportive and keen to be involved in the project. Keeping them informed, and maintaining their interest in what we were trying to achieve was important.
Indigenous Canadian group	Several meetings were held with members of an indigenous Canadian group to discuss eco-health issues (Auckland; April 2010, Utakura; November 2010, March 2009, Kaikohe; February 2012).

Northland College	An ongoing relationship with local secondary school Northland College was established several years ago. It involved an annual Year 9 environmental study of Lake Ōmāpere and several days of fieldwork with students helping to plant the lake riparian strip.
Hōreke Primary School	Involvement with the local primary school was essential for raising environmental awareness amongst whānau and the community.
Community Corrections	The group undertook to supervise whānau required by the courts to do community service. This relationship has proved to be an important way to raise the profile of local environmental issues, involve whānau who otherwise may not participate, and get some practical help for our project.

Appendix 2: Poster – Utakura population, people and place

Population, people & place: Utakura ma uta ki tai



National Institute of
Demographic and Economic Analysis
Te Kōwhiri Māori Tatauranga

THE UNIVERSITY OF WAIKATO

This research documents the population history of the Utakura Valley in the Hokianga region of Aotearoa New Zealand. *Utakura ma uta ki tai* is a 30 km catchment area bounded by the Utakura River which runs westward from Lake Omāpere to the Waihou River (Fig. 1). Like the rest of the Hokianga, the catchment area has been subject to tremendous change over the last century. Land loss, environmental degradation, and economic restructuring have impacted the wellbeing of the Ngāpuhi people, their sites of significance – including waterways – and the connections between them. This research is part of a community-driven project seeking to restore the health of the waterways and the wellbeing of the people. Using statistical records and archival material, it situates the Māori demographic history of the Utakura valley within a broader spatial and social context. The story it tells is one of demographic decline, recovery, rupture, transformation, and ultimately, of resilience.

1874–1901: DECLINE

*The earliest estimate for Utakura comes from the 1874 census. It counted 122 Ngāpuhi men, women and children from the hapū of Te Popoto, Waitaha and Honihoni. After the 1881 census the government stopped counting iwi and hapū by residence. Utakura effectively disappeared from the official statistical record.

*The size of the Hokianga Māori population steadily declined as deaths exceeded births. Whooping cough, typhoid, malarial fever and respiratory diseases were key causes of mortality. The vulnerability of communities was heightened through the alienation of land and resources, loss of political authority, and demographic swamping by settlers.

*Child-Woman ratios are a basic indicator of survivorship (Pool, 1991). Child-Woman ratios for Hokianga Māori suggest that mortality levels increased between 1874 and 1901, but were better than for Māori nationally.

*Hokianga Māori were significant exporters of timber, flax, wheat, maize, potatoes and other commodities. This changed as colonisation expanded. Lacking resources, Māori entered the cash economy as casual or seasonal labour, working in forestry, public works, gum digging and railways. The Depression of the 1890s hit whānau hard. An official report from 1887 noted "a great scarcity of money in every direction" (AJHR, 1887, G-3, p.2).

Fact flash: A native school opened at Utakura in March 1897. The average weekly attendance was 27 children and exam pass rates were in excess of 70 per cent.

1901–1945: RECOVERY

*After reaching a low point in 1891, the Hokianga Māori population began to recover. Growth rates and Child-Woman ratios increased. Official reports noted improvements in fertility, health and housing, and commended the work of the Māori Councils. The population continued to grow, despite the devastating impact of the 1918 influenza pandemic.

*Small-scale farming became an important mode of livelihood. A 1908 report recorded the "nuclei of healthy Maori farming communities" at Utakura and adjoining areas (AJHR, 1908, G-11, p. 3). Many whānau lived off their cows and provided milk and cream to the Motukaraka Dairy Co-operative when it opened in 1910. Some of these farms were subsequently merged under Apirana Ngata's Māori Land Development scheme.

*New roads and the extension of the North Auckland railways line to Okaihau in 1923 enabled greater movement between Northland settlements, as well as with Auckland.

Fact flash: The Māori death rate from the influenza pandemic was at least seven times that of the Pākehā population (Rice, 2011).

Fig 1. Map of Utakura ma uta ki tai catchment area.

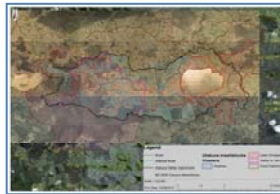
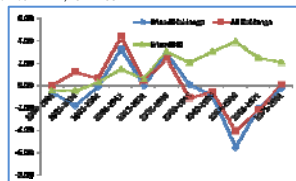


Fig 2. Utakura whānau planting on the banks of Lake Omāpere, 2005



Fig 3. Average annual rates of growth for Māori in Hokianga County, total Hokianga County, and Māori in N.Z., 1874–1981



1945–1981: RUPTURE

*The post-war period was one of massive demographic change for Māori. Mortality and life expectancy improved significantly, and growth rates reached an all time high. Between 1956 and 1965, the number of Māori nationally grew at an average rate of about 3.9 per cent each year. That level of growth is higher than in many parts of Africa today (World Bank, 2011).

*At the same time, the Māori population of the Hokianga declined at an average rate of 5.5 per cent per year as whānau joined the migration to urban centres, notably Auckland. Small settlements such as Utakura were literally emptied out.

*Several large employers either shut down or downsized their workforce. The Motukaraka dairy factory closed in 1957. More restructuring followed in the 1980s and key government services closed or were relocated.

Fact flash: In 1945, one in five of all Māori lived in Northland. By 1966, that share had halved.

1981–2012 TRANSFORMED

*By the late 1980s the population and economy of the Far North, and the Utakura valley, had been transformed. Notwithstanding the massive changes documented in this research, the connection between people and place has endured (Fig 2).

*In the 2006 census, 1,575 individuals were living in the broad catchment area and 648 (45 per cent) were Māori. These figures have changed little since 1996, when localised data first became available. Population projections for Māori in the Far North suggest future growth will remain low over the next decade. The proportion of children will continue to decline while the share of older people will increase.

*The distribution and concentration of Māori in the catchment area varies considerably. While more Māori live in Okaihau, the Māori share of the population is far higher in and around Utakura, where nearly four out of five residents are Māori.

*Partly because of its high Māori concentration, Utakura has a high share of Māori speakers. In the 2006 census, nearly one third of residents spoke te reo Māori.

Fact flash: Migration to Australia is likely to further change the demography of the Far North in coming years. The exact number of Māori migrants is hard to quantify.

Acknowledgements: We thank Te Rooptu Taiao o Utakura, and especially Remana Henwood, for his assistance with defining the spatial boundaries in Figure 1.
Sources: Appendices to the Journals of the House of Representatives, various years; Pool, I. (1991). *Te Iwi Māori*. Auckland: AUP; Rice, G. (2011). *Epidemics - The influenza era, 1890s to 1920s*. *Te Ara - the Encyclopedia of New Zealand*. Accessed at: <http://www.TeAra.govt.nz/en/epidemics/4>; World Bank (2011). Population growth annual (%). Accessed at: <http://data.worldbank.org/indicator/SP.POP.GROW>