KO TE HEKENGA I TE TAI A KUPE

A Cultural Review of the Health of Te Awanui, Tauranga Harbour

Manaaki Taha Moana: Enhancing Coastal Ecosystems for Iwi

MTM Report No. 3

June 2014

Manaaki
Taha Moana

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A Cultural Review of the Health of Te Awanui, Tauranga Harbour

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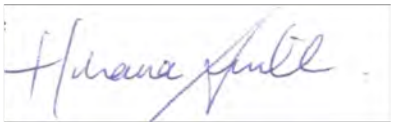

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MIHIMIHI

I te tīmatanga, ko te kore
Ko te pō
Nā te pō ka puta ko te Kūkune
Ko te Pūpuke
Ko te Hīhiri
Ko te Mahara
Ko te Manako
Ka puta i te whei āo ki te āo mārama
Tihēi Mauri ora

Ki ngā maunga, ki ngā moana
Ki ngā whare maha e karopōti nei i Te Awanui
E rere ana ngā mihi
Ki a rātau kua moe ngā whatu
Takoto mai i te moenga roa
Kia tātau e pīkau ana i ngā āhuatanga o te āo tūroa
Tātau e kōwhaiwhai ana i ngā wawatā ō rātau mā, tēnā koutou

Ka huri ngā mihi ki ngā puna mātauranga, ki ngā puna kōrero
E hāpai ana i te kaupapa rangahau nei
Nā koutou kē ngā mōhiotanga, ngā māramatanga kua heke iho nō rātua mā
Nā reira, tēnā koutou
Koutou kua kōwhaiwhai nei i ngā kōrero, mai i te pūtaketanga o te whakaaro tae noa ki te whakamutunga o te tuhinga nei, tēnā koutou.

Ka rere tōnu ngā mihi ki te kaupapa
Ko te kaupapa he mea rangatira
He whakapiringa kōrero, he hononga tāngata
Ko te rangahau he kauapa mutunga kore, ko te tūmanako ko tēnei kohinga kōrero he timatanga noa, kia whakahihiko i te hinengaro, i te wairua kia rere arorangi.

1 EXECUTIVE SUMMARY

This report aims to provide a cultural review of the health of Te Awanui. The report is based on a literature review of archives, cultural impact assessments, resource consent submissions, Waitangi Tribunal reports and other published reports. It is important to note that this report is not a full historical account of all cultural issues regarding Te Awanui, rather it aims to identify the major issues as identified by tangata whenua, and provide a summary of accounts. This report will sit alongside the Health of the Harbour Report (2011) a scientific literature review of Te Awanui. Collectively the reports aim to inform Tauranga communities, iwi/hapū and stake holders of the 'state of the harbour', and to identify information gaps and research areas that would benefit from collaborative participatory action research methodologies.

Manaaki Taha Moana (MTM) is a six-year programme, running from October 2009 to September 2015, with research being conducted primarily in two areas: Tauranga Moana and Ngati Raukawa on the Horowhenua Coast. The project aims to restore and enhance coastal ecosystems and their services of importance to iwi/hapū by better understanding the ecosystems and the degradation processes that affect them. This report aims to support the development of a knowledge repository of coastal ecosystems within the Tauranga Harbour, to better inform strategies for enhancement and action plans for restoration.

The report begins with an investigation into the disempowerment of kaitiakitanga and rangatiratanga within Tauranga Moana. First it describes the basic cultural philosophies and principles that form the basis of kaitiakitanga and rangatiratanga. This section investigates the disempowerment of management authority in Tauranga Moana, and describes how legislative mechanisms have impacted upon the exercise of kaitiakitanga and rangatiratanga of Tauranga Māori. We then review the re-emergence of kaitiakitanga in today's contemporary setting and discuss some of the limitations and challenges Tauranga Māori face as kaitiaki in the resource management systems of today.

The second section of this report aims to highlight the unique relationship tangata whenua of Te Awanui have with their coastal environments and resources. This section provides a summary of accounts, which highlight the major pressures experienced by the coastal systems of Te Awanui. Although this report has a strong coastal focus, this section follows the 'Mai Uta, ki Tai' or 'Mountains to Sea'. This framework acknowledges the whole system approach, desegregating the harbour system, and connecting the land, freshwater and coastal systems as one.

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2 THE MANAAKI TAHA MOANA (MTM) PROJECT

Manaaki Taha Moana (MTM) is a six-year programme, running from October 2009 to September 2015, with research being conducted primarily in two areas: Tauranga Moana and the Horowhenua Coast. This programme builds upon Massey University's previous research with Ngāti Raukawa in the lower North Island: Ecosystem Services Benefits in Terrestrial Ecosystems for Iwi.

Professor Murray Patterson of Massey University is the Science Leader of MTM. A number of different organisations are contracted to deliver the research: Te Manaaki Te Awanui Trust in the Tauranga Moana case study; Te Reo a Taiao Ngāti Raukawa Environmental Resource Unit (Taiao Raukawa); WakaDigital Ltd; Cawthron Institute; and Massey University. The research team seeks to engage with local communities and end users through a variety of means. Readers are encouraged to visit the MTM programme website (http://www.mtm.ac.nz) to read more about this research programme.

2.1 MTM Objectives

MTM's central research question is: — how can we best enhance and restore the value and resilience of coastal ecosystems and their services, so that this makes a positive contribution to iwi identity, survival and welfare in the case study regions? Accordingly, our research aims to restore and enhance coastal ecosystems and their services of importance to iwi/hapū, through a better knowledge of these ecosystems and the degradation processes that affect them.

The MTM teams utilize both western science and mātauranga Māori knowledge to assist iwi/hapū to evaluate and define preferred options for enhancing/restoring coastal ecosystems. This evaluation of options will also be assisted by the development of innovative information technology and decision support tools.

The research team works closely with iwi/hapū in the case study regions to develop tools and approaches to facilitate the uptake of this knowledge and its practical implementation. Mechanisms will also be put in place to facilitate uptake amongst other iwi throughout New Zealand. The key features of this research are that it is: cross-cultural, interdisciplinary, applied/problem solving, technologically innovative, and integrates the ecological, environmental, cultural and social factors associated with coastal restoration.

2.2 Principles of Mātauranga Māori Research

All stages of this literature review have been conducted in conjunction with the Manaaki Taha Moana (MTM) principles of kaupapa Māori research. These principles aim to guide the practices and procedures of the Te Hekenga i te Tai a Kupe Report.

MTM kaupapa Māori research principles have integrated and adapted principles from other studies (Pohatu, 2005; Mane, 2009; Smith and Reid, 2000) that are consistent with the aspirations and philosophies of the MTM project. MTM research principles are based on eight major strands, all inter-linked and inter-related. It is important to mention that although the eight principles have been categorised individually they do not act in isolation. Each principle is linked by multiple connections and relationships.

The key principals of MTM kaupapa Māori research are outlined here:

Tino Rangatiratanga - The Principle of Self-determination
Tino Rangatiratanga relates to sovereignty, autonomy, control, self-determination independence, acknowledging individuality and distinctiveness. The MTM research project upholds this principle by allowing all participants control of their own cultural aspirations and destiny. Tino Rangatiratanga recognises the reciprocity of mātauranga Māori as a multi-directional transfer of knowledge that provides a basis for empowering self-determination, and capacity building at a project level as well as a whānau, hapū and iwi level.

Tino Rangatiratanga acknowledges that mātauranga Māori belongs to the people. Thus it is the people that determine its use and how its integrity will be upheld. MTM research ensures appropriate processes and procedures regarding information security and ethical practices are maintained.

Tikanga/ Kawa - The Principles of Conduct
This principle aims to ensure that MTM research is conducted in consistency with cultural guidelines of conduct. The principle tikanga/kawa ensures MTM research respects the cultural significance of traditional customs and acts in accordance with traditional and cultural procedure, lore and practice.

The tikanga/kawa principle acknowledges that people/research does not exist in isolation; but is bound by a network of layers linking to the past, present and future. MTM research acknowledges that tikanga and kawa are traditional practices that acknowledge and strengthen connections. These connections are not only in Te Ao Kikokiko (physical world) but more importantly respect and acknowledgment is given to Te Ao Wairua (spiritual realm), Te Ao Hinengaro (knowledge), and Te Whatumanawa (emotions).

Taonga Tuku Iho - The Principle of Cultural Aspiration
This principle asserts Te Reo Māori, Tikanga and mātauranga Māori as central concepts to MTM research. Within a kaupapa Māori paradigm, Māori ways of knowing, doing and understanding are unique and are valid in their own right. Taonga Tuku Iho recognises the many forms of taonga including, Te Ao Kikokiko (the physical world), Te Ao Wairua (the spiritual realm), Te Ao Hinengaro (knowledge), and Te Whatumanawa (emotions).

Taonga Tuku Iho recognises the significance of the trans-generational transfer and acknowledges that taonga passed down have been preserved through generations and have sustained years of change. It is therefore important to acknowledge their origins and pathways, both physical and spiritual.

Taonga Tuku Iho also incorporates Ako Māori. Ako Māori acknowledges the teaching and learning practices inherent and unique to Māori. These practices may not necessarily be traditionally derived but may be preferred by Māori. These practices link to related principles such as, whānaungatanga and kotahitanga which acknowledge that each individual person, whānau, hapū, and iwi have valuable taonga, therefore contribution and co-operation supports and upholds Ako Māori.

Kotahitanga - The Principle of Collaboration
Kotahitanga makes links to the principle Tino Rangatiratanga and recognises individuality and uniqueness of the individual person, whānau, hapū, and iwi. It recognises that each has a valuable skill, resource base and knowledge.

Kotahitanga goes further to recognises the limitations of working in individual isolation and that collective co-operation can empower and improve social, cultural and economic capacities. Kotahitanga views the individual as collective members of the larger community, working towards advancing the holistic well-being of the collective. Kotahitanga recognises that mātauranga Māori is held by the people and only through a reciprocal collaborative approach will the integrity of the knowledge and all its unseen facets be upheld.

Kotahitanga is also linked to the principle Māramatanga and recognises the importance of kanohi ki te kanohi (face to face communication), and tau utuutu (alternating speakers). Therefore a collaborative approach must maintain and promote respectful lines of communication, both sharing and receiving.

Kotahitanga embraces the holistic Māori view of the world; therefore mindful and respectful consideration is always made to Te Ao Kikokiko (the physical world), Te Ao Wairua- (the spiritual realm), Te Ao Hinengaro (knowledge), and Te Whatumanawa (emotions).

Whānaungatanga – The Principle of Building Relationships
Whānaungatanga is closely linked to the principle Kotahitanga, which recognises the importance of a collaborative approach. Whānaungatanga however concentrates more specifically on building and enhancing strong relationships to enable effective co-operation.

Whānaungatanga recognises that relationships and interactions within a whānau group are based on respect, understanding and aroha. Whānaungatanga encourages growth, while also attracting and building relationships between tāngata, whānau, hapū and iwi. Whānaungatanga also includes building meaningful relationships with people and ngā puna kōrero (information sources), te taiao (the environment), and ngā rawa (the resource). Whānaungatanga recognises the importance of not only building new relationships but maintaining and preserving existing relationships.

Āta - The Principle of Respect

The principle of Āta was developed by Pohatu (2005) and relates specifically to the building and nurturing of relationships. Āta reminds people of how to behave when engaging in relationships with people, kaupapa and environments. Āta also incorporates the notion of planning, while also recognising the importance of being prepared holistically in, Te Ao Kikokiko (the physical world), Te Ao Wairua- (the spiritual realm), Te Ao Hinengaro (knowledge), and Te Whatumanawa (emotions).

Āta incorporates māhaki/tūwhakaiti (humility), which is vital at all levels of kaupapa Māori research. The humility approach acknowledges that each person, kaupapa or environment is valued and their mana (integrity) is upheld and preserved.

Manaakitanga/Kaitiakitanga – The Principle of Care and Guardianship

Manaakitanga/Kaitiakitanga relates to care and protection and is closely linked to the principle Āta. Manaakitanga/Kaitiakitanga guides principles such as whānaungatanga and kotahitanga and incorporates concepts that include building strong relationships. Manaakitanga/Kaitiakitanga is a holistic approach and recognises the importance of caring for and protecting the cultural realms of Te Ao Kikokiko (the physical world), Te Ao Wairua (the spiritual realm), Te Ao Hinengaro (knowledge), and Te Whatumanawa (emotions).

Manaakitanga/Kaitiakitanga allows for the protection of mātauranga Māori (Māori knowledge), for both the present holders and their future generations. Manaakitanga/Kaitiakitanga acknowledges mana mātauranga (the integrity of knowledge). This highlights that knowledge is not isolated in time and space but has developed, moulded and adapted throughout time and will continue to do so. Care and respect must be taken to ensure that the present holders direct the knowledge pathways, so that mana mātauranga is maintained.

Māramatanga - The Principle of Understanding

Māramatanga relates to transparency of conduct at all levels. Māramatanga highlights the importance of clear management guidelines regarding planning, communications, policies and procedures.

Māramatanga is closely related to the principles of kotahitanga and whānaungatanga. Māramatanga recognises that in order to effectively uphold the principles of collaboration

and reciprocity there must be a collective kaupapa, open line of communications, and appropriate information dissemination systems.

Māramatanga incorporates kanohi kitea (the seen face), and kanohi ki te kanohi (face to face) which encourages communication face to face, and the development of meaningful open relationships.

3 INTRODUCTION

3.1 Te Hekenga i te Tai a Kupe

The Tauranga area is known for its natural beauty and its diverse and productive coastal ecosystems, open seas, offshore islands, coastal sandy beaches, and rocky shores. Te Awanui (Tauranga Harbour) is a large harbour lagoon that was used as a place of safe anchorage. The Tauranga Harbour consists of many unique geographical features such as estuaries, mudflats, tidal pools, and wetlands (Waitangi Tribunal Report, 2004).

The setting of Tauranga area during pre-European settlement was described as one of the most densely settled landscapes in New Zealand (Waitangi Tribunal Report, 2010). Hapū that occupied Te Awanui were undoubtedly attracted to the diverse and productive ecosystems and the plentiful coastal, marine, freshwater and terrestrial resources (Waitangi Tribunal Report, 2004).

Following the arrival of Europeans, hapū of Te Awanui lost a great deal of their ancestral lands (Stokes, 1992). This coincided with a change in natural hapū organisation and utilisation of traditional resources. Resources were traded, and as the Tauranga landscape changed, so did the traditional methods and legacies of kaitiakitanga, manaakitanga, tikanga and kawa. European settlement saw the introduction of general infrastructure and government policies, which made way for rapid development and population influx (Office of Treaty Settlements, 2012).

Over the past 150 years, tāngata whenua of Tauranga Moana have witnessed and experienced first-hand the significant changes to the Tauranga Harbour coastal environment and its resources. These changes have occurred at such a rapid rate that Tauranga Harbour of today is only a shell of its pre-settled state. Although the embedded association with Te Awanui and its surrounding environment still remains the seed of cultural identify for Tauranga Māori, the relationships and interactions tāngata whenua have with the moana differ greatly to that of their predecessors.

The early settlement of Tauranga Moana was driven by European settlement and enforced by European law. The settler government established systems based on principles of European origin, and for a long time these settler systems showed blatant disregard for traditional Māori culture, practices, beliefs and values. This settler system, foreign to Māori, saw the establishment of legislation that for years overlooked and marginalised Māori management authority, kaitiakitanga and rangatiratanga of Tauranga Moana and its resources. Early legislation created a system that enabled Māori land acquisition, which created the compartmentalisation and fragmentation of remaining lands and waterways. Furthermore, where Māori retained land or resources, their decision-making authority was removed through authorising mandated governing bodies created under European frameworks with settler's agenda. Early legislation provided mechanisms for early settlement, and although

years have passed since these early acts, because of the severe impact to Māori culture and traditions, they created a legacy that continues to this day.

Te Tai a Kupe is the name given to exceptionally high spring tides known as king tides. These tides carry tremendous force and can flood low-lying lands, inundating areas that for the remainder of the year would otherwise be dry. They are unavoidable and have been used in reference to an overwhelming struggle or battle, as described in the proverb 'Ka whawhai atu koe ki ngā tai a kupe', 'You will battle against the king tides'. Although overpowering at their crest, the receding tide is recognised as a time for renewal, revitalisation and regeneration. Ko te Hekenga i te Tai a Kupe can be translated as the receding king tide. This statement has been used to reflect the recent history of Tauranga Moana, which has followed a wave common for its time and place. It depicts the history of Tauranga Moana from pre-settlement when Māori culture and traditions governed the land and seas, through a time of settlement, which saw a flood of European belief systems that suppressed and disempowered iwi /hapū, to the present day where regenerating and restrengthening Māori cultural context is well underway.

The first section of this report will investigate the disempowerment of Kaitiakitanga within Tauranga Moana. It will begin with an overview of the traditional Māori World View, with specific reference to the founding principles and values that guide the protection and guardianship of Tauranga Moana and its resources. This section will also explore the legislative history of Tauranga Moana, and will pay particular attention to the impact legislation has had on the management authority of Tauranga Māori. This section will finally discuss the re-emergence of kaitiakitanga in its new contemporary setting, and investigates the role of Tauranga Māori in today's management of Te Awanui. The scope for this report does not allow an in-depth detailed account of all legislative devices through history, it will instead describe the most pertinent mechanisms associated with the statutory issues as identified and described by Māori of Tauranga Moana.

The second section of this report aims to recognise mātauranga Māori. The value of mātauranga Māori has and continues to shape beliefs, customs and practices of Tauranga Māori. Mātauranga Māori acknowledges that Māori have an intimate knowledge of their environment and the intricacies of its systems. The observations and experiences with the past and present are maintained and preserved through the generations. This section therefore aims to provide a review of mātauranga Māori concentrating on cultural issues, surrounding the health of Tauranga Harbour.

3.2 Ngā Iwi o Te Awanui

3.2.1 *Ngāti Ranginui*

The Tākitimu is the ancestral waka of Ngāti Ranginui. The Tākitimu waka captained by Tamatea Arikinui arrived at Tauranga. At Mauao he conducted the rituals and ceremonies of arrival and opening up the land for habitation. He and his family settled in the Tauranga area,

building residences at Maunganui, Kāwhainui and Papāmoa (Ngāti Ranginui and The Crown, 2012)

The people of Ngāti Ranginui descend from Tamatea Arikinui. Tamatea married two sisters, Iwipupu and Ihuparapara. From Ihuparapara came Ranginui. Ranginui also had two wives Urutomo and Kurapori and from their union the many branches of Ngāti Ranginui were formed. Over many generations these ancestors and their descendants established villages, fortifications, burial grounds, fishing areas and forest harvesting places. Many others also came to live in Tauranga and today there is a diverse mixture of descent from Tākitimu ancestors, alliances and marriages with early and more recent arrivals (Ngāti Ranginui and The Crown, 2012). The hapū of Ngāti Ranginui comprise of: Ngāti Te Wai, Ngāti Taka, Pirirakau, Wairoa hapū (Ngāti Kahu, Ngāti Rangi and Ngāti Pango), Ngāti Hangarau, Ngāi Tamarāwaho, Ngāti Ahi and Ngāti Ruahine.

3.2.2 *Ngāi Te Rangi*

Ngāi Te Rangi is a tribe that descends from the Mataatua Waka. The journey of Ngāi Te Rangi originates in the East Coast. Their journey followed the historical journey known as Te Heke o Rangihouhiri or the Journey of Ngāi Te Rangi, from Ōpōtiki to the Gisborne district, Tōrere, Whakatāne, settling finally in Matatā. It was here that Ngāi Te Rangi encountered a battle where Tutengaehe the son of Te Rangihouhiri, was slain. Overcome with grief Te Rangihouhiri prophesised his own death. The next day at the battle of Poporohuamea, Te Rangihouhiri was killed. Ngāi Te Rangi were originally called Ngāti Rangihouhiri but after the loss of their chief Te Rangihouhiri, his brother Tamapāhore led and renamed the people as Ngāi Te Rangi. Through intermarriage and many gruelling battles, Ngāi Te Rangi finally settled where they are today in Tauranga Moana (Ngāi Te Rangi *et al.*, 2012).

Ngāi Te Rangi have survived and flourished and now have 11 operative marae and 11 affiliated hapū located as far north as Katikati through to Te Tumu in the east and on the islands of Matakana, Tuhua, Mōtītī and Rangiwaea. These hapū include: Ngā Pōtiki, Ngāi Tamawhariua, Ngāti Tauaiti, Ngāi Tūkairangi, Ngāi Tūwhiwhia, Ngāti He, Ngāti Kaahu, Ngāti Kuku, Ngāti Tapu, Te Whānau a Tauwhao, Te Ngare (Te Rūnanga o Ngāi Te Rangi Iwi Trust, 2014)

3.2.3 *Ngāti Pūkenga*

The ancestor Pūkenga was of Mataatua descent, a fifth generation descendant of Toroa. Pukenga was the son of Tānemoeahi of Mataatua and Tanehiwarau of Te Whānau a Tairongo from Rūātoki. Pukenga lived at his father's pā Ōhae, in the Rūātoki Valley. Once older, Pukenga and his brother ventured toward the coast, arriving at Tauranga Moana. They climbed to the summit of the ranges, naming the area Kaimai. The naming of this area symbolises the connection of Pukenga and his descendants to the region. Pūkenga returned to Rūātoki to inform his family of the lands to which they had travelled. However, he found that war had struck and he was killed in battle. Following the battles, the descendants of Pūkenga

left Rūātoki as Ngāti Hā, and after many more battles they settled in Rangataua and other areas of Tauranga Moana. Ngāti Pukenga comprises of the descendants of Te Tawera, Ngāti Ha and Ngāti Pūkenga (Ngāti Pūkenga *et al.*, 2013).

4 KAITIAKITANGA

To fully understand the relationships Māori have with the environment it is important to understand the Māori World View. Walker (2008) describes worldview as the basic perspective or set of fundamental beliefs that form the framework of a culture. He goes further to say that world views help cultures and individuals within cultures to understand and make sense of the world around them and their place in it. Marsden (2003b) defines worldview as the central systematisation of conceptions of reality to which members of its culture assent and from which stems their value system. The worldview lies at the very heart of the culture, touching, interacting with and strongly influencing every aspect of the culture.

The Māori World View forms the foundations of Māori value systems; it forms cultural beliefs and practices that inherently guide interactions with the world. The Māori World View not only defines ones place in the world, but also dictates exchanges and interactions. In terms of Māori culture, Pūrakau (myths and legends) form the basis of the Māori World View as they form the central system on which the holistic view of the universe is based (Marsden, 2003b; Williams, 2001).

Creation plays a fundamental role in forming the Māori World View. It is important to acknowledge that although tribal versions of the creation may differ, the fundamental concepts remain the same. This report will not detail the complexities of whakapapa (genealogical links) surrounding creation; instead it will focus on the main concepts that define place and interaction with the world and environment from a Māori perspective.

Williams (2001) explains two key philosophies deriving from creation stories. Firstly, he describes the universe as holistic and dynamic; with myriads of on-going process. Process of potential, becoming and being are depicted in creation and whakapapa, which describe the notion of continual creation and recreation. Williams (2001) further explains that everything in the universe, inanimate and animate, has its own whakapapa, and all are ultimately linked via the gods to Ranginui and Papatuanuku. There is no distinction or break in this cosmogony, and hence in the whakapapa, between supernatural and natural. Both are part of a unified whole. 'The bond this creates between humans and the rest of the physical world is both immutable and un-severable'. Every Māori shares this descent from gods, goddesses, guardians and super humans (Williams, 2001).

The Māori World View acknowledges that man is only part of the whole; man must therefore understand and respect the connections that link us to the world. It is important to understand our place, man is not of superior position nor do we have absolute dominion over the natural environment. We are linked through genealogical connection that must be respected and valued. This connection is articulated by Walker (2008):

"All things in the natural world are seen by Māori as the progeny of Papa and Rangi including humankind. People are thus seen as directly related and thus connected to all

(living and non-living) things. This common bond places people firmly inside the natural environment; they do not exist outside it. If something is done to the natural environment (whether positive or negative) then it is done to oneself. The personification of the natural environment through various atua (spirits) reinforces this belief. If a water body is polluted for example then not only is the water body polluted but it is an affront to the atua as well as oneself".

From these whakapapa links, un-severable connections are established and are manifested in interactions and exchanges with the world. These relationships determine and dictate how Māori engage with the environment, guide customary rituals and traditions and shape the roles and responsibilities of custody and guardianship. Kaitiakitanga/kaitiaki is recognised as the embodiment of understanding and valuing these connections.

Kaitiakitanga gives rise to protection and guardianship of the natural world, including all components and all facets. For the purposes of this discussion kaitiakitanga will be considered on two levels spiritual and physical. It is important to note that although described separately it should be acknowledge that in practice both levels of kaitiakitanga exist and work as one. On a spiritual level kaitiaki are responsible for upholding and maintaining respectful links to the spiritual world as described in stories of creation. This therefore ensuring the spiritual pathways are maintained and protected. The recognition of spiritual connections to the atua is achieved through practices such as karakia (prayer) and waiata (song) (Love *et al*., 1993).

The Māori World View recognises that everything has protecting guardian spirits, who live between both the spiritual and physical world. These beings have an in-severable connection to the spiritual world, and they enact their duties in the physical world. These guardians will allow reasonable use of natural resources provided; the correct rituals are performed, the use is reasonable respectful and prior permission is sought (Williams, 2001).

On a more perceivable level kaitiaki can be considered as the physical application of kaitiakitanga achieved through traditional practices such as takawa (protocol), and tikanga (practices). These social controls maintained the integrity of Māori society and have led to a sensitive environmental management system (Love *et al*., 1993). These systems all contribute collectively to ensuring survival into the future. Kaitiakitanga therefore ensures the continuation of whakapapa, acknowledging connections of past, present and future as vital elements to survival of the people and culture. Kawharu (2000) reiterates this by describing kaitiakitanga as more than managing relations between environmental resources and humans; it also involves managing relationships between people in the past, present and future. (Kawharu, 2000).

Mead (2004) describes kaitiaki as a transient phase, where kaitiaki are responsible for maintaining and preserving that which has been handed down to them for the future. He expresses this by saying:

"Kaitiakitanga is a different world view. One where we do not own the earth (or the plot of land we have title to) to exploit as we wish, but rather a recognition that we and all life are created from Papatuanuku (Mother Earth) and temporarily supported by it in a very interdependent way. Our role is to be guardians of our world; to pass it on to the next generations in a state better than we found it - just like when we pass the baton in a relay race, only this time there is much more to lose if we drop it" (Mead, 2004).

Mauri is an essence, the life force that exists within all things, living and non-living (Durie, 1998; Papa, 2012) and is therefore found in all things such as water, land, forests, wind, soil, rocks, houses and harbours (Williams, 2001). Mauri is the binding force between the physical and spiritual worlds (Durie, 1998), and is the essence that weaves the world and everything within it together. Love *et al* (1993) eloquently describes the fundamental nature of Mauri:

"*Through the creation process, divine forces descended into the domains of the atua, giving them a life forces principle or mauri. This life essence contained in resources both animate and inanimate, is important to Māori for two reasons; firstly it holds an eminent binding force that is able to inter-relate one resource to every other element in the natural order (including people), while also binding it to the spirituality of the gods. Despite the diversity of the universal 'procession', it is unified through mauri. Secondly, it provided Māori a series of formal relationships, which when recognised in practice and prayer ensured physical and spiritual integrity of the environment for future generations".*

This explanation given by Love *et al* (1993) not only describes the essence of mauri but it reveals clear connections between mauri and kaitiaki/kaitiakitanga. Preservation of mauri was ensured first through acknowledgement of the spiritual and physical connections and second through practices, or tikanga that were developed and observed over many centuries. These tikanga evolved into the ethic and exercise of kaitiakitanga (Love *et al*., 1993). Māori have adopted the role of kaitiaki (guardians) and have accepted the obligation not only to care for the natural world, but also for each successive generation (Hayes, 1998; Papa, 2012).

4.1 Tauranga Moana, Tauranga Tāngata

Love *et al* (1993) describes that cultural identity can be defined by connection to the lands and seas. It is further highlighted that the unique māori way of identifying their place in the world, is by making specific reference to the environmental feature most significant to who they are: "*When a Māori introduces him or herself in a situation where they are not familiar they will generally introduce themselves in relation to their tribal boundaries, their turangawaewae with reference to their mountain, to the rivers from that mountain to the lands adjacent to the mountain, to their tribe and then down to their hapū and marae, and thence out to their Moana, the sea, into which flows. In the tribal consciousness the markers of the natural environment provide the identity"* (Love *et al*., 1993). In asserting this

identity, one not only acknowledges the connections to the ancestral landscapes, but also acknowledges the whakapapa that links them to the natural environment and its resources.

The ancestral landscapes of Tauranga Moana are bound to tāngata whenua, and in reciprocity, the people are bound to their ancestral landscapes. The ancestral landscapes of Tauranga Moana are those places made sacred by the lives and deaths of those whom have passed. These landscapes include natural features such as forests and rivers; physical formations such as mountains, valleys, harbours, and estuaries; and cultural features such as pā, kāinga, mahinga kai, and wāhi tapu (Waitangi Tribunal Report, 2010 pg 495). The relationships between tāngata whenua and their cultural landscapes is unique, both relying on each other for spiritual, physical, emotional and social wellbeing. The mountains, the forests, the rivers, and the people are all interconnected and interdependent; this is encapsulated by Taiawa Kuka of Matakana Island who states: "*the association of land and sea is our reality; the very essence of our being as it prevails in the day to day activities of our lives. The mix is in the air that we breathe, the sounds that we hear, the sights that we see, the emotions that we feel and the life-blood passed down through our tūpuna to us today*" (Waitangi Tribunal Report, 2010 pg 494).

Maintaining the wellbeing of these relationships between the people and the natural environment is expressed through the ethic and practice of kaitiakitanga (Waitangi Tribunal Report, 2010 pg 495). In claiming whakapapa to the original inhabitants of Tauranga Moana tāngata whenua of Tauranga Moana inherit ongoing responsibilities as the kaitiaki, responsible for guarding and protecting the environment and its taonga for the benefit of present and future generations.

4.2 Cultural Practices Pertaining to Kaitiakitanga

Traditionally Māori of Tauranga Moana maintained healthy resources by adopting management strategies and practices that were laid down according to tikanga and kawa, and designed to maintain order and balance between people and the natural world. These practices were developed through an intimate knowledge of the spiritual and physical connections to the natural environment. In regards to kaitiakitanga of the moana and its resources, the Māori of Tauranga Moana followed a strict set of tikanga.

Most important of all kaitiakitanga practices, were the rituals centred on preserving and upholding the spiritual links to the spiritual guardians. This involved acknowledging the whakapapa of natural resources and conducting the appropriate rites and rituals recognising the atua and their domain. In terms of Tauranga Moana and the resources, Tangaroa is the guardian atua, and therefore necessary acts of respect were performed when entering his realm. Karakia were performed prior to fishing or harvesting, to ensure safe expedition, protection of harvesters and successful harvest. Also, the first fish taken was returned to the sea with a karakia, being an acknowledgement to Tangaroa (Rolleston, 2010; Ellis and Tata, 2006; Waitangi Tribunal Report, 2010 pg 500). Kaimoana was not to be eaten in the water, or during the fishing or harvesting expedition, nor was it to be processed on shore (Rolleston pg

20; Waitangi Tribunal Report, 2010 pg 500). These principles recognise and pay respect to the whakapapa and mauri of the kaimoana, and its guardian atua Tangaroa.

Rāhui is a custom used by Māori to prohibit the use of a resource in order to indicate ownership of an area, the death of a person, or the need for replenishment of resources (Maxwell and Penetito, 2007). Although there are no recent examples of rāhui being used to claim ownership of an area, the latter two purposes are still applied today. Accounts of rāhui being used for the purpose of loss of life are evident since the early arrival of Māori to New Zealand, and have occurred in many situations including accidental or during battle.

In relation to Tauranga Moana, Rolleston (2010) explains that if a person drowns no one is allowed to fish or gather kai in the moana until Tangaroa returns the dead, and the waters are deemed to be cleansed. Only at this time is the rāhui lifted and the waters reopened for use. This is to ensure spiritual protection of the dead, the sea and the people. Although the custom of emplacing a rāhui following a death is still carried out today, Maxwell (2007) describes the disparities surrounding traditional and contemporary application of rāhui. He highlights that today rāhui following the loss of life are not legally enforced and describes this type of rāhui as a voluntary rāhui. This new contemporary rāhui is significantly different to its traditional counterpart, where the essence and mana of rāhui was commonly understood throughout Māori communities, and it was accepted that breach of such lore resulted in severe spiritual and physical consequences.

Traditionally rāhui were also instated to allow the mauri of a resource or resources to replenish (Maxwell, 2007). In some cases rāhui were accompanied by the placement of a mauri stone, permeated with spiritual mauri, emplaced by the karakia of a tohunga:

"The tohunga, who by his knowledge and art drew forth the mauri of the universe and concentrated it within a stone or some other object, which was then secretly placed in the area- forest, sea and river. From this source, the aura of the mauri would radiate outwards both to the environment and more specifically to the particular species for which it was intended. This mauri created benevolent conditions within the environment to harmonise the processes within the earth's ecosystems and aid the regeneration process" (Royal, 2003 p. 70).

Although there is no evidence of recent use of mauri stones, the traditional use clearly illustrates the fundamental nature of rāhui. It suggests that rāhui are not only enacted through restriction and protection mechanisms in the physical human world, but rāhui existed within a higher spiritual level. Maxwell (2007) describes rāhui as calling upon the mauri of the universe.

Although for most parts, the purpose of rāhui remains the same, nowadays the form and function differs significantly to its traditional origins. Maxwell (2007) refers to the contemporary rāhui as a 'Voluntary Rāhui', which are primarily used to protect aquatic resources. Today rāhui can be emplaced following a death, or as 'temporary closures'

through Section 186A (North Island) and Section 186B (South Island) of the Fisheries Act 1996. Although regarded as rāhui, these temporary closures do not carry with them the same traditional principles. Traditionally tohunga would observe the resources and look for signs that would indicate a rāhui is necessary. The length of the rāhui was determined by the ability of the resources to replenish and would last as long as was needed. Royal (2003) explains that the area under rāhui was monitored by the tohunga and when it was considered that the resource had regenerated itself sufficiently, the 'tapu' was lifted. The temporary closures of today however prescribe a set of ridged processes that must be followed to establish a temporary closure.

The traditional Māramataka also played a significant role in Māori life. The Māramataka speaks of seasons and cycles that preside over the natural world and guide how tāngata whenua live on a day-to-day basis. Māramataka guided tāngata whenua in choosing the best times to harvest kai and replant crops (Ellis *et al*, 2008). As a form of resource management, kaimoana were ideally harvested when they were in best condition and most abundant, therefore taking fish or shellfish out of season was a wasted effort, as the taste and nutritional value during this time was depleted. Harvesting off season could affect the reproductive productivity and sustainability of the resource (Ellis and Tata, 2006). Kina, for example, were taken in summer when the flowering of the pōhutukawa signalled they were plentiful and fat (Ellis and Tata, 2006; Waitangi Tribunal Report, 2010), and kūtai was also preferably harvested in the summer months when the kōwhai was in bloom (Ellis and Tata, 2006).

Traditional collection and harvesting methods were also guided by a set of strict rules. These rules carried a strong element of respect and conservation. Some examples of these rules ensured that nets and lines were not dragged on the seabed, and on shore, sacks and baskets were lifted, never dragged over shellfish beds (Rolleston, 2010). Rotating shellfish beds would prevent overharvest and allow harvested beds to replenish and an overarching directive was to only take what was needed so as to prevent any waste (Waitangi Tribunal Report, 2010 pg 500).

4.3 Tino Rangatiratanga

In the past, tikanga and kawa not only guided harvesting protocol, but also allowed hapū the right to take kai from their rohe moana and gave the right to restrict access to others. These rights are directly associated with tino rangatiratanga and are expressions of territorial rights, based on occupation and control of an area. Tino rangatiratanga over an area carries the accompanying responsibility of guardianship or kaitiakitanga. Tino rangatiratanga rights were therefore balanced with the responsibility of kaitiakitanga, together working cooperatively to conserve and sustain the resource and associated cultural obligations (Fisher *et al,* 1997, Environment Canterbury, 2011).

Tauranga Māori affirm that the authority and capacity to act as kaitiaki in the management of cultural resources is a vitality important practical expression of their rangatiratanga over ancestral taonga (Waitangi Tribunal Report, 2010 pg 490). Over the decades however, tāngata whenua of Te Awanui have been excluded from decisions that have shaped their ancestral land/seascapes and use of coastal resources. History shows that this exclusion has seen Māori unable to act as kaitiaki, and unable to guard or protect their taonga from the impact of development (Waitangi Tribunal Report, 2010 pg 490). The loss of rangatiratanga and kaitiakitanga will be discussed in detail in later sections.

5 DISEMPOWERMENT OF KAITIAKITANGA

This chapter does not aim to give a detailed account of New Zealand legislative history- it does however, aim to outline some of the major legislative mechanisms that have led to the disempowerment of Māori and their related loss of rangatiratanga and kaitiakitanga within the Tauranga Harbour. This section will look at: land loss and the associated customary rights and responsibilities, legislative conflicting paradigms and the some of the mechanisms in which allowed acquirement of land by the Crown.

In early times, the Crown's active management of Tauranga's development ignored long established Māori rangatiratanga and kaitiakitanga and subdued Māori cultural and spiritual values, which placed great emphasis on protecting a healthy and sustainable environment. Māori had to accept the Crown's vision of development or they faced being sidelined, ignored or forgotten (Waitangi Tribunal Report, 2010 pg. 519). Tauranga Māori experienced first-hand a loss of tino rangatiratanga and kaitiakitanga not only over their ancestral lands but also over the waterways, seas and the resources within. This loss has occurred as a result of a long history of crown legislation deriving from an English law, foreign to Māori and contradictory to the traditional customary rights surrounding tino rangatiratanga and kaitiakitanga.

Under English law, the Crown is the sole source of title to all land. Under this common law the Crowns sovereignty includes the paramount ownership of its territory (otherwise known as its radical or underlying title) and the right to govern (Auditor General Office, 2004). However, in situations such as New Zealand, where the crown had colonised an indigenous people, a precept of common law gives recognition to the doctrine of aboriginal title. This doctrine acknowledges the pre-existing aboriginal property rights of those indigenous people, which cannot be extinguished by a transfer of sovereignty. A critical aspect of this doctrine is that the nature of native or customary title is decided by reference to native custom and law and not according to English conceptions. Furthermore the customary titles and rights remain until they are legally extinguished either by legislative action, or by Crown purchase (Waitangi Tribunal Report, 2010 pg. 513; Parliamentary Library, 2003).

Under the common law doctrine of aboriginal title, processes of the Crown can extinguish aboriginal rights. However, the duties associated with tino rangatiratanga such as kaitiakitanga are preserved in the Treaty of Waitangi under Article II, which guarantees Māori exclusive and undisturbed possession of lands, estates, forests, fisheries and treasures. In affirming rangatiratanga, the Treaty went further than protecting property rights, but also entitled authority and control, in addition to ownership rights (Parliamentary Library, 2003).

Perhaps the most crucial difference between rights recognised in the Treaty and rights under common law is their source and mandate. Common law derives from English legal systems and as such is controllable within those systems. Rangatiratanga however is sourced in and controllable according to Tikanga Māori (Auditor-General Office, 2004). And although the

true interpretation of both guarantee the preservation of customary rights to lands and resources, the historical application however has proven to be inconsistent and selective. In this sense, the conflicting constitutions of English law and tikanga Māori have been the basis to which Māori customary rights have been subdued, devalued and disregarded. In disregarding the doctrine of aboriginal title and the principles of the Treaty of Waitangi, the government imposed English common law and created legislation to further disadvantage and marginalise Māori values and tikanga. Perhaps the process most destructive to Māori customary rights was the compartmentalisation and fragmentation of land and waterways, both freshwater and coastal.

5.1 Compartmentalisation of Land

In pre-European times, Māori land was communally owned and belonged to an entire iwi, hapū or whānau, based upon traditional Māori customs. After the signing of the Treaty of Waitangi in 1840, the Crown used two methods to obtain Māori land, the first was through Crown acquisition and the second was through Raupatu or land confiscations (Auditor General Office, 2004). These two modes of land acquisition were the beginning of a rapid loss and fragmentation of Māori land.

In 1862 the Native Lands Act was created, which provided the foundations for the establishment of the Native Land Court and initiated further fragmentation of customary tribal land ownership. The primary function of the Native Land Court was to convert Māori customary title to land, into freehold title. Customary communal land ownership was transformed into individual titles in the form of Crown Grants in freehold. Under this system land rights derived from the crown in accordance with feudal tenure and meant that individuals could have exclusive ownership of land and all other tribal members who may have been owners were effectively dispossessed along with their tribal customary rights. The legislation facilitated land sales and initiated the fragmentation of Māori ownership interests (Auditor General Office, 2004; Parliamentary Library, 2003).

The New Zealand Settlements Act (1863) was to have devastating effects to Māori land ownership. This act was passed during the New Zealand Wars, and provided the legal framework for the confiscation of Māori land. The legislation claimed to aid European settlement, by placing military settlers on lands where they could act as a buffer between Māori and European communities. The outcome however was to take punitive action against so-called rebel Māori (any Māori who had taken up arms or supported those involved in armed resistance against the crown). Māori considered to be in ‘rebellion’ were not entitled to compensation, and even Māori that were thought of as ‘loyal’ were first offered monetary compensation rather than the return of their land (Ngāti Ranginui and The Crown, 2012; Parliamentary Library, 2003).

Any lands returned were granted to individual owners rather than to the tribal communities that held customary tenure prior to its confiscation. As with the Native Lands Act, individualisation of land tenure made it possible for land to be alienated by individual owners

without reference to their tribal collectives (Ngāti Ranginui and The Crown, 2012). To further facilitate European settlement, in many cases land was not returned to the original customary owners, and customary rights and their associated responsibilities were terminated.

5.2 Compartmentalisation of Freshwater, Marine and Coastal Areas

The English land tenure systems not only included land ownership but also extended to the freshwater and coastal environments. As was the case with land ownership; customary rights and responsibilities associated with these traditionally important environments were eliminated and reshaped by English law. After the Raupatu, some lands were partly returned as Crown Grants. These Crown Grants however meant that rights to rivers and coastal areas were no longer held under customary title; instead English law shaped the rights to the rivers. Therefore, the customary title of unreturned land, or land granted to anyone other than the original customary owner was lost and with it, the customary rights to the rivers, lakes, streams as well as coastal areas. In this way Māori customary or aboriginal title and rights to waterways were effectively replaced by the English land tenure system (Waitangi Tribunal Report, 2010 pg 518).

Māori customarily viewed rivers and streams as holistic systems. Rangatiratanga was held by the hapū who exercised collective authority over the river and who acted as kaitiaki. This is highlighted in the Waitangi Tribunal Report (2010), which states that "waterways were not something to be analysed by the constituent parts of water, bed and banks, or of tidal and non-tidal, navigable and non-navigable portions" as in English law (Waitangi Tribunal Report, 2010 pg 517). English law considers waterways as constituent parts and consequently, ownership rights differ for different parts. Under common English law, rivers are comprised of riverbeds and banks (which can be owned) and natural water (which cannot be owned). Furthermore, according to the *ad medium filum aquae* rule of common law, non-navigable riverbeds are owned by the adjoining (riparian) landowners to the midpoint of the waterway and ownership of a riverbed carried with it other rights, including those of fishing and navigation (Waitangi Tribunal Report, 2010 pg 518).

When the Crown confiscated the lands off Tauranga Māori, they also took the waterways. Even when portions of these lands were returned to Tauranga Māori, they were no longer held under customary title but under Crown Grant. Thus, the nature and extent of Māori property rights were now very different. Instead of collectively possessing a river, wholly and indivisibly as a taonga of the people, individual riparian owners now possessed portions of the river's banks and bed (to the water's midline) and controlled the right to fish. And, in cases where confiscated lands were not returned to the original Māori occupants, the ownership and rights to access the river were lost. This meant that tāngata whenua no longer owned or were allowed access to the adjacent banks, nor the riverbeds, and fishing, navigation and any other customary management rights were too, lost (Waitangi Tribunal Report, 2010 pg 519).

In 1903, under section 14 of the Coal Mines Amendment Act 1903, the Crown in New Zealand extended its ownership to the beds of all navigable rivers. It did so to protect the 'national interest' in economic use and development of major rivers, and to prevent the private control of hunting and fishing. The little remaining Māori customary or aboriginal rights to navigable rivers and waterways were further displaced and denied (Waitangi Tribunal Report, 2010 pg 518).

5.3 Coastal Compartmentalisation

Confusion can occur when addressing ownership rights where rivers meet the sea, as coastal ownership rights associated with rivers do not extent to the foreshore and seabed. Under English law, the foreshore and seabed are strictly different categories of land, which are assumed to be the property of the Crown. Traditional Māori customs relating to 'ownership' of the sea, the foreshore and the resources, did not conform to the alien concept of compartmentalisation (Waitangi Tribunal Report, 2010 pg 507). The conflicting perspectives of English law and Māori customary title and rights in regards to the coastal environments have established a long history of marginalisation of Māori rights.

English law stipulated that although Māori had customary right to the Moana, Māori customary rights did not amount to full property rights over the foreshore. In doing so the courts opened the way for the Crown to assume a general claim, under the common law, to ownership of the foreshore. Under the common law, unless contravened by a Crown Grant, or by proof of use-rights entitling citizens to such a grant, the Crown was the presumptive owner of the foreshore. Additionally, the burden of proof rests with Māori to prove the rightful ownership and subsequently displacement of Crown ownership. Also, under common law the Crown owned the seabed as far out as territorial sovereignty was asserted (Waitangi Tribunal Report, 2010 pg 513).

The Māori view of a seamless relationship between land and sea, and the extension of customary rights to the foreshore and seabed, is reflected in a speech by a Tauranga Rangatira Taiaho Hori Ngatai to John Ballance, the Minister of Native Affairs, at a Tauranga Hui in 1885. The speech describes the very essence of customary rights and responsibilities regarding the coastal environment and its resources:

"Now, with regard to the land below high water mark immediately in front of where I live, I consider that that is part and parcel of my own land… part of my own garden. From time immemorial I have had this land, and had authority over all the food in the sea. Te Maere was a fishing-ground of mine. Onake, which is a place from which I have from time immemorial obtained pipis. Te Rona is another pipi-bed. Te Karaka is another place. I am now speaking of the fishing-grounds inside the Tauranga harbour. My mana over these places has never been taken away. I have always held authority over these fishing places and preserved them, and no tribe is allowed to come here and fish without my consent being given. But now, in consequence of the word of the Europeans that all the land below high water mark belongs to the Queen, people have trampled upon our ancient Māori customs and

are constantly coming here whenever they like to fish. I ask that our Māori custom shall not be set aside in this manner, and that our authority over these fishing-grounds may be upheld. The whole of this inland sea has been subdivided by our ancestors, and each portion belongs to a proper owner, and the whole of the rights within the Tauranga Harbour have been apportioned among our different people; and so with regard to the fishing-grounds outside the heads: those are only small spots. I am speaking of the fishing-grounds where hāpuku and tarakihi are caught. Those grounds have been handed down to us by our ancestors. This Māori custom of ours is well established, and none of the inland tribes would dare to go and fish on those places without obtaining the consent of the owners. I am not making this complaint out of any selfish desire to keep all the fishing-grounds for myself; I am only striving to regain the authority which I inherited from my ancestors" (Waitangi Tribunal Report, 2010 pg 498-499).

This statement highlights the discrepancy that exists between customary rights and the categorisation of coastal lands described by English law. Customary rights do not end at the high water mark but instead are inclusive and extend from land to sea. The rights and responsibilities to the coastal area were, and still are, inherited through an intergenerational transfer and are maintained and preserved through an understanding of customary authority.

Following the land confiscations, commissioners were tasked with the duty of returning a small portion of the confiscated lands. Their jurisdiction however did not extend to the coastal environments of Tauranga Moana and instead ended at the high water mark. Tauranga Māori made repeated requests to preserve customary rights to coastal fisheries and customary gathering areas such as salt-water marshes, sand flats and islands covered at high water where shellfish were gathered. These claims were all ignored; Commissioner Herbert Brabant claimed that recognition of these fishery claims might result in Māori "*preventing all fishing by Europeans in the harbour"* (Waitangi Tribunal Report, 2010).

Attempts to assume rangatiratanga of customary fisheries continued throughout the 1900s. In 1947, Katikati Māori petitioned to the Prime Minister asking that "the harbour from Tauranga to Katikati be reserved for Māori fishing" owing to the depletion of fisheries by trawlers. Although the Government appointed two honorary fishery officers, the enforcement gained limited success. Again in 1950 another attempt to preserve rangatiratanga was made when the Athenree Bowentown Tribal Committee requested that pipi beds be brought under their exclusive control. The Crown denied this request, but did regulate against the certain collection methods Māori had highlighted in their request. This again had limited success (Waitangi Tribunal Report, 2010 pg 562).

National attention and debate was rekindled again in 2003 when the foreshore and seabed issue was brought to the forefront. In 2003 the Court of Appeal, in the decision of *Ngāti Apa v Attorney General* 2003, found that Māori customary property in the foreshore and seabed had not been extinguished and the Māori Land Court had jurisdiction to determine claims of customary ownership of the foreshore and seabed (Waitangi Tribunal Report, 2010, Parliamentary Library, 2003; Te Ope Mana a Tai, 2003; Somerville and Fraser, 2011). In

response to the 2003 decision the Labour Government passed the Foreshore and Seabed Act 2004 (FSA), which ultimately removed the ability of Māori to seek recognition of their customary title through the Māori Land Court and vested the beneficial ownership of the foreshore and seabed to the crown, but allowed existing freehold title to remain.

After years of unrest, in 2011, the National Government passed the Marine and Coastal Area Takutai Moana (TMA) Act 2011, which saw the repeal and reframing of the former Foreshore and Seabed Act 2004. The TMA was an attempt to acknowledge Te Tiriti o Waitangi, which the FSA did not. The TMA removed the ownership of the foreshore and seabed from the hands of the Crown and established a Common Coastal Marine Area (CCMA). Under this Act "*neither the Crown nor any other person owns, or is capable of owning, the common marine and coastal area, as in existence from time to time after the commencement of this Act"* (Ministry of Justice, 2011).

Under the Takutai Moana Act, whānau, hapū or iwi groups can seek recognition of customary interests in the CCMA through direct negotiations with the crown or through an application to the high court. The TMA acknowledges three levels of customary rights that can be assumed by Māori applicant groups; 1) Participation rights, 2) Protected customary rights, and 3) Customary marine title. Although the TMA aims to acknowledge the Treaty of Waitangi, by providing mechanisms in which Māori can assume customary rights to the foreshore and seabed, Tauranga Moana presented a united front against the legislation, in which it was expressed that the TMA does not fully recognise and provide for the mana and authority that hapū and iwi have exercised in relation to the takutai Moana.

Submissions by the iwi and hapū of Tauranga Moana identified issues surrounding the Common Coastal Marine Area, which does not include existing freehold title and retains privilege to an exclusive group that have freehold of their land. This, they expressed, creates a new form of title for Māori that is specifically defined as being inferior to the freehold title. Furthermore, rights associated with the customary marine title are extremely limited. The subordinate title is predicated on a notion of essentially subordinate Māori rights.

Furthermore, the Customary Marine Title requires the applicant group to prove that "....*60 (1) holds the specific area in accordance with Tikanga, and has either exclusively used and occupied the area from 1840 to the present day without substantial interruption or received the area through a customary transfer"* (Ministry of Justice, 2011). Questions were highlighted regarding the 'substantial interruption' that arose over the Land Confiscations of the 1860s. Iwi of Tauranga Moana protested the fact that customary occupation was interrupted, not by their own accord, but by circumstances that were forcefully imposed and out of their control.

6 KAITIAKITANGA OF TE AWANUI, TAURANGA HARBOUR

The history of Tauranga Harbour has followed a common national theme, where by Māori and the Crown held contrary positions, both assuming possession and control of the foreshore and seabed. The Crowns attempt to settle the debate was by passing acts of law vesting authority of the harbour and its resources in local bodies composed entirely of Pakeha. Without any consultation the tino rangatiratanga and kaitiakitanga of Tauranga Māori over their Moana was handed over to Pakeha.

Possibly, the most influential event was the establishment of the Tauranga Harbour Board in 1912. The board comprised entirely of Pākehā members and offered no consultation or input from Tauranga Māori. Shortly after, in 1915, the Tauranga Harbour Amendment and Foreshore Vesting Act was passed as the source of the Tauranga Harbour Boards authority in the Tauranga Harbour. The Act vested 'the foreshore of the Tauranga Harbour' in the Tauranga Harbour Board which included all the foreshore of the Tauranga Harbour commencing at the north head, Katikati entrance, and thence following the mainland to the headland at Mount Maunganui opposite the Beacon Rock at the Tauranga entrance to the harbour'. Through this act, the Harbour Board acquired jurisdiction of the entire Tauranga Harbour, and from this time forth Tauranga Māori would struggle to assert their Treaty rights and to participate in the management of the harbour (Waitangi Tribunal, 2010 pg 837).

Through the Water and Soil Conservation Act 1967, the Crown took the significant step of vesting in itself sole rights to the development of water resources, including any dams, diversions, or discharges. The Crown thereby assumed sole rights to allocate the use of water, effectively nationalising its management. After the 1967 law was passed, the Crown immediately delegated some of its powers to regional water boards that were established to administer a system of permits for taking and discharging water. From 1971, regional water boards were granted the power to discharge into classified waters, providing the minimum water quality established by the classification was not breached. This system remained in place, largely unmodified, until the 1990's (Waitangi Tribunal Report, 2010).

The Water and Soil Conservation Act made no mention of Māori interests in the ownership or management of water, and Māori interests were treated as part to the general public. The legislation also had limited success in controlling pollution, as the water classifications tended to operate as minimum standards often set below existing water quality levels, which meant already degraded bodies of water could be further deteriorated. (Waitangi Tribunal Report, 2010 pg 544). The Water and Soil Conservation Act remained the key statue for controlling water pollution until the Resource Management Act (1991).

The exercise of tino rangatiratanga over taonga within New Zealand's modern legal framework now requires either ownership or, where this is not possible, significant management rights recognised and provided for in a statute of law. Such management rights provide another means by which to recognise tino rangatiratanga, and allow for the

expression of kaitiakitanga (Waitangi Tribunal Report, 2010 pg 507). The most well-known example of such a statute is the Resource Management Act (RMA) 1991, which was the result of four years of legal reform. This replaced more than 20 major statutes and 50 other laws relating to the environment, some dating from as far back as 1889. The RMA 1991 set out to create a more streamlined, integrated and comprehensive approach to environmental management.

The RMA made specific provisions to Māori interests in a number of sections. With these provisions, the Act provided some hope that things might change in favour of Māori kaitiakitanga and rangatiratanga. However, the reality was not positive for Māori who have been forced into a long arduous battle to assert their rights under the RMA, and under the Tiriti o Waitangi.

Māori have campaigned against the resource management authority as prescribed by the RMA. The RMA sanctions the control and use of natural resources to various Ministers, their Departments and the local government sector. This is of particular concern to Māori whom see it as an encroachment upon their authority as kaitiaki (Parliamentary Library, 2003 pg 19). In these crown departments, Māori are generally underrepresented and kaitiaki concerns or jurisdiction are not given priority in decision-making processes under the RMA (Waitangi Tribunal, 2010). Māori values are routinely weighed by decision makers against a wide range of other public interests, which results in decisions that do not provide for active protection of rangatiratanga and kaitiakitanga (Parliamentary Library, 2003 pg 19; Waitangi Tribunal, 2010)

Even though the RMA is acknowledged as a significant improvement on previous laws, the tāngata whenua of Tauranga identify a number of areas of ongoing concern. For several reasons, the Act's provisions that enable Māori to exercise rangatiratanga and act as kaitiaki in environmental management have not yet been properly realised in practice (Waitangi Tribunal, 2010). In particular, the limitations of provisions surrounding consultation and iwi/hapū management plans have been identified as ongoing issues.

The RMA clearly sets out the requirements for consultation with iwi authorities; however consultation in the RMA does not extend to or provide tāngata whenua with the authority of veto. The consultative rights of tāngata whenua are equal to those awarded to the regular public. Therefore, the consultation processes renders Māori largely outspoken, against the influence of strong and wealthy developers or lobby groups. Furthermore, the consultation process can be lengthly and costly and instead of being involved in decision making and engaging in the preparation of plans, Māori instead have expended considerable effort fighting resource consents (Waitangi Tribunal Report, 2010).

Iwi/hapū management plans are a mechanism of the RMA 1991, which allow iwi and hapū input into environmental planning and decision-making within their rohe. These plans are prepared by an iwi, iwi authority, rūnanga or hapū and describe resource management issues of importance to tāngata whenua. The plans may also contain information relating to specific

cultural values, historical accounts or descriptions of areas of interest. They may also describe protocols for consultation and engagement for resource consents or changes to regional and local plans. Local authorities have statutory obligations, under the Local Government Act and the Resource Management Act, to appropriately recognise, protect and provide for tāngata whenua values and interests. It is also a requirement that in preparing regional policy statements, regional plans, and district plans, councils shall have to regard any relevant planning document recognised by an iwi authority (Joseph, 2002).

It has been suggested that the iwi/hapu management plans have not had the impact that was possibly expected when the RMA was passed. This is partly owing to the lack of planning and decision-making authority given to the management plans. Iwi management plans must be given consideration; however, any rules and policies in the document do not necessarily have to be followed. In the event of any direct inconsistency between a regional policy statement or plan, or a district plan and an iwi management plan, the former usually wins out. In addition, iwi management plans only inform the statutory planning process, and there is no requirement to consider an iwi management plan when determining whether resource consent should be issued (Joseph, 2002).

At present the most potentially potent provision in the RMA, for the exercise of Māori rangatiratanga, are those relating to the transfer, delegation or sharing of powers as in Section 33. There is huge potential for Tauranga Māori to play a more meaningful role as kaitiaki over the environments of Tauranga Moana. Realising the aspirations of kaitiaki will require much more constructive working relationships forged between tāngata whenua, councils and the wider community. Under the current RMA there is considerable scope for co-management/co-governance relationships to be forged. What is required however, is greater willingness to realise the benefits from enhanced Māori involvement (Waitangi Tribunal, 2010).

The unratified Tauranga Moana Iwi Collective Deed (TMIC) outlines an agreement between Ngā Hapū o Ngāti Ranginui, Ngāi Te Rangi, Ngāti Pūkenga, Tauranga Moana Iwi Collective Limited Partnership and the Crown. The Tauranga Moana Framework (TMF), Section (2) outlines provisions most pertinent to the management of the moana. It recognises that "*while the RMA and Local Government Act 2002 ensure due consideration of Treaty principles when discussions are made that affect the relationship tangata whenua have with their taonga, relationship building means going beyond the statutory compliance issues. It means building awareness understanding, agreement, and commitment within the relationship that gives confidence to both parties and their values, principles and perspectives have been included in the decision making process*"(Tauranga Moana Iwi Collective Deed, *unratified*).

The TMF is the most promising movement towards realising the aspirations of Tauranga Moana iwi and hapū, for their exercise of rangatiratanga and kaitiakitanga of Te Awanui. The TMF requires government agencies to actively participate in building relationships based on models of true partnership. The TMF makes specific reference to the importance of building and maintaining positive, co-operative and enduring relationships with local

authorities and agencies. Furthermore, the TMF is the first scheme, developed and backed by the crown that not only allows Tauranga Māori to participate meaningfully in co-governance and co-management of Tauranga Moana, but also requires government agencies to engage with Māori in ways that since now, have been largely unattainable through conventional legislative mechanisms.

7 CUSTOMARY AND COMMERCIAL FISHING RIGHTS

The Treaty of Waitangi recognises Māori sovereignty over fisheries. However, similar to that of land rights, Māori customary fisheries rights underwent a process of denial and disempowerment. In the late 1800s, New Zealand law began to regulate commercial fisheries. By the 1920s, the Government ceased recognising customary rights over fisheries (Havemann, 2004; Memon *et al.*, 2010) and Māori control was progressively eroded. In the 1890s the State's recognition of Māori customary and commercial fishing rights began when the government admitted breaches of the past and sought to rectify them through the Treaty negotiations process. As a result of the negotiations, commercial and customary fishing rights were defined independently under law. These distinctions did not however exist within pre-colonial Māori society, where trade was an integral part of Māori traditions that reinforced connections to tribal fishing areas and to other iwi/hapū. As a result of Treaty negotiations, Māori have been forced to accept the fragmentation of their commercial and customary rights and engage accordingly.

Through Treaty negotiations Māori were offered a final settlement of commercial fisheries grievances through the Fisheries Settlement Act 1992, and twelve years later in 2004 the Aotearoa Fisheries Limited and Te Ohu Kaimaoana were granted authority to manage the customary commercial fisheries settlement assets. There are still conflicting views regarding the appropriateness of the private corporate model as a means of delivering socio-economic benefits to Māori communities, along with conflict regarding further consideration for value of community based models of managing commercial fisheries (Memon *et al.*, 2010).

Following the commercial settlement, the government focused its efforts on addressing the non-commercial customary fishing interests. In 1996, the Fisheries Act was legislated and made provisions for the establishment of Taiapure reserves. The Act allows for Māori to apply for reserves to be established in areas of customary significance to iwi or hapu and for which are recognised as traditional food gathering areas or have spiritual or cultural significance. The Taiapure provisions emerged as a feeble attempt at recognising Treaty rights. The Act provides that if a Māori group successfully establishes a Taiapure, the Māori management authority of the reserve is limited to involvement through recommendations to the governing minister, who has final authority. Māori management rights within a Taiapure are defined and authorised by government, with the application of kaitiakitanga and rangatiratanga extremely limited by this control. Furthermore, not only is the establishment process long and arduous, but Māori communities must negotiate with commercial and recreational interests (Memon *et al.*, 2010).

The Kaimoana Fishing Regulations 1998 made further advancements to the Māori non-commercial fishing rights and defined three major mechanisms in which Māori can assert customary fishing rights. In pre-colonial times fisheries were communally owned and were subject to traditional forms of authority and management. This was usually administered under the guidance of the rangatira and tohunga of the tribe, who would determine

sustainable management practices for the tribal fisheries. Through the Kaimoana Fishing Regulations, Tangata Kaitiaki/Tiaki can be designated similar management roles. Individuals or groups can be mandated by the Iwi/hapū as Tangata Kaitiaki/Tiaki. Their roles include, but are not exclusive to; authorising customary fishing within their rohe moana, assisting in the development of fisheries management plans, and applying for the establishment of a Mātaitai Reserve.

The provisions for Mātaitai Reserves allow a greater exercise of tino rangatiratanga and kaitiakitanga as they devolve management authority to a local Māori management committee, who have the ability to develop bylaws rather than simply making recommendations. In 2008, the Te Maunga o Mauao Mātaitai reserve was established under the management of Ngāi Te Rangi, Ngāti Ranginui and Ngāti Pukenga collectively, through the Tauranga Moana Iwi Customary Fisheries Management Committee (TMICFC). The TMICFC are not only tasked with implementing bylaws within the Mātaitai Reserve, they also facilitate data collection, management and dissemination. The TMICFC facilitate the monitoring of mahinga mataitati within the reserve, and the development of programmes to support local tangata kaitiaki to carry out authorisation and data management responsibilities. In this regard, TMICFC have played a major role in filling the 'knowledge gap' and redeveloping locally relevant management strategies.

Although a significant step up from previous statutes, the 1998 Kaimoana Fishing Regulations do not provide for complete and absolute management authority over the Mātaitai reserve and all that it encompasses. This was highlighted by the high court finding, in an appeal against the 2011 Environment Court decision to grant consent to Tauranga Port Ltd to dredge within the Te Maunga o Mauao Matatitai Reserve. One of three appeals focused on the Environment Courts failure to have particular regard to the status of the Mātaitai Reserve as an expression of the Crowns continuing treaty obligations. The judge found that "*the Mātaitai Reserve does not have greater significance over and above its status of national importance pursuant to s 6(e)"* (High Court of New Zealand, 2012). Under this finding the consent granted by the Environment Court was authorised and dredging will be carried out in a number of areas of significant cultural value within the Mātaitai reserve. Although Tauranga Māori have statutory rights to fisheries management within the Mātaitai reserve, these management rights do not equate to exclusive authority, kaitiakitanga therefore is still defined and authorised by government.

Any areas outside the designated Te Maunga o Mauao Mātaitai reserve are governed by the recreational fishing regulations. The recreational fishing limits are determined and enforced by the Ministry for Primary Industries (MPI). Tangata whenua have little input into local recreational fishing regulations and are granted the same rights as the general public. Tangata whenua therefore lack authority to manage their customary fisheries in areas outside of customary fisheries reserves.

8 KO AU KO TE MOANA, KO TE MOANA KO AU

A Collection of Historical Accounts from Tangata Whenua of Te Awanui

Mātauranga Māori is an aspect of knowledge that is intricately linked with Māori culture, customs and traditions. Mātauranga Māori is described as "a transfer of knowledge and trans-generational beliefs that are disseminated through oral tradition and first hand observation" (Harmsworth *et al*., 2004). Mead (2012) describes mātauranga Māori as a pool of knowledge, embracing and inclusive, a collection of past, present and future interactions and experiences, built and developed overtime through interactions with the physical and spiritual worlds. Taiapa (2014) further recognises that mātauranga Māori does not exist in isolation; it is instead part of a matrix of connections through time and space. The transfer of knowledge or mātauranga can be regarded as a transfer of energy- the very energy that joins the physical world to the spiritual. When mātauranga Māori is transferred it is not alone, it is instead a collection of mātauranga from generations past, and it is for this reason that mātauranga Māori carries the mana, mauri and wairua of its descent. It is important to recognise that mātauranga Māori also has a whakapapa, a whakapapa that links it back to the land, to the sky and all that they encompass.

Mead (2012) describes mātauranga Māori as everything that is important in the lives of the people. It could be value based or created over time, through intimate interactions with places and people. He continues that:

"It could be that an important value is incorporated into the range of values that are an essential part of the knowledge system. Or, it might be a survival issue that is remembered, such as making judgements about the behaviour of the sea (Tangaroa's domain) and knowing when to go out fishing and when it would be unsafe to challenge the changing nature of the ocean. Thus, there were many terms for different directions and characteristics of wind and this knowledge had to be learned and mastered by members of the whānau whose job it was to catch fish" (Mead, 2012).

Mātauranga Māori encompasses the Te Ao Māori way of viewing the world, which acknowledges the interconnected holistic world-view. This view requires an all-inclusive understanding of the environment, and recognises the relationships tāngata whenua have with their world. The preservation of these environmental values have developed pathways for future generations by nurturing physical and spiritual bonds to the environment, which influence rationale, choice and action. Mātauranga Māori has and continues to shape beliefs, customs and practices of Māori people. These customs have been preserved in cultural practices such as karakia, kōrero pakiwaitara, waiata, mōteatea, tauparapara, whakataukī and whakapapa (Forster, 2003; Harmsworth, 2002; King *et al*., 2007; Wallace, 2008 and Williams, 2001).

Mātauranga Māori cannot be generalised, nor classed into generic overarching of all inclusive knowledge systems. Mātauranga Māori is special and unique to the people and environment

for which it is created. In terms of Te Awanui, the tāngata whenua have developed knowledge systems over many generations, they have experienced the realities of living in their ancestral area, and have over time developed intimate relationships with the environment that are critical to their survival of their culture as distinct peoples.

The pepeha 'Ko Mauao te maunga, ko Tauranga te moana' highlights the strong relationship between Tauranga Māori and their environment. This pepeha anchors the people of this region to the land, to the seas, and to the rivers, highlighting the intertwined seamless unity of culture, nature and ancestral landscapes. This extract from the Waitangi Tribunal Report (2010) describes the unique relationship the people of Te Awanui share with their ancestral landscapes;

"The tāngata whenua of Tauranga Moana belong to the landscapes in which their whakapapa (ancestry) embeds them. Their ancestral landscapes are those places made sacred by the lives and deaths of their ancestors. These landscapes include natural features such as forests and rivers; physical formations such as mountains, valleys, harbours, and estuaries; and cultural features such as pā, kāinga, mahinga kai, and wāhi tapu. The ancestral landscape defines the relationship between tāngata whenua and the natural environment; it is, quite literally, the embodiment of their cultural heritage. The state of their ancestral landscapes is therefore 'inextricably linked to Māori spiritual, emotional, physical and social well-being...".

The unique bond between the people and Te Awanui is preserved in this whakatauki "Ko au ko te moana, Ko te moana ko au", which translates to "I am the sea, the sea is me". This whakatauki describes the indivisible relationships between people and the sea. It speaks not only of the physical connection but also the spiritual, acknowledging that one does not exist without the other. Another example is given by a prominent whakatauki of Te Whānau a Tuawhao (2011) which says "Ko au ko te patiki, Ko te patiki ko au" "I am the flounder, the flounder is me". This again reflects the inseparable relationship between the people and their cultural ancestral taonga.

The tāngata whenua of Tauranga Moana, have lived and experienced the changes to the coastal environments of Te Awanui. The historic setting of Te Awanui has been described in the past, as a place of great natural beauty, with diverse and productive ecosystems that provide endless supplies of fish and shellfish (Waitangi Tribunal Report, 2010). Although much of this is still arguably true, it is widely accepted by tāngata whenua that today's harbour dose not resonate the same picture perfect portrait. Anthony Fisher, of Ngāi Tūkairangi, articulates the changes he has experienced in his life time, and expresses his concerns for the future:

"Ngāi Tūkairangi were dependent for our very survival upon the resources of Tauranga Harbour. In addition the Harbour and its resources were also part of the cultural identity of Ngāi Tūkairangi. Although Tauranga Harbour is very beautiful, today it bears little resemblance to the Tauranga Harbour of 160 years ago, little resemblance to the Tauranga

Harbour of 65 years ago when my mother was a teenager and has even changed significantly from the Tauranga Harbour of 35 years ago when I was a teenager . . . these changes have not been caused by nature, they are changes that have been made by people and institutions. They continue to occur, almost relentlessly decade after decade as a consequence of the growth and development of the Tauranga district, with little thought of the consequences for Ngāi Te Rangi . . . Thus the ability of successive generations of Ngāi Te Rangi to maintain their cultural practices and connections continues to diminish. Access to resources, in particular fish and kaimoana from Tauranga Moana has dramatically decreased. My son does not have the opportunity to do the things that I did when I was a child in the Harbour. I didn't have the opportunity to do all of the things, learn all of the place names and the significance of events that are attached to them that my mother did . . . Thus the Ngāi Te Rangi relationship with the Harbour diminishes with each generation." (Cited Waitangi Tribunal Report, 2010).

This section of the report aimed to investigate the changes to Te Awanui that have occurred over time and have been observed by the tāngata whenua of Te Awanui. This was achieved through an in-depth literature review of mātauranga Māori collated from a range of documented resources. The review is guided by the 'Mai Uta ki Tai' framework, which acknowledges that land and sea are indivisible and the Tauranga Harbour system extends to the surrounding land and riverine catchments. The review therefore investigates cultural issues surrounding urban and rural development, and discusses their impacts to the receiving riverine and coastal environments.

9 URBAN GROWTH AND DEVELOPMENT

In 1882, the settlement of Tauranga consisted of 250 households and 1200 people (Tauranga City Libraries, 2012). The local population remained relatively stable until the post-war economic revival, when a trend towards urbanisation intensified. In 1951, the *New Zealand Herald* commented that small villages on the outskirts of Tauranga were being 'swallowed up' by the urban area and in 1954, it reported that Tauranga was experiencing: "*An astonishing commercial boom, bigger than anything it has known before, has brought Tauranga 7,500 new residents in the past five years, increasing the population by over 60 percent"* (cited Waitangi Tribunal Report, 2010 pg 310). In 1961 Tauranga was ranked the 16th largest borough in New Zealand and in 1963 it was officially declared a city when its population reached over 21,500 (Tauranga City Libraries, 2012). Today the population is estimated at 114,789 (5th of March 2013, Statistics New Zealand, 2013) and continues to grow.

In the past fifty years, Tauranga has experienced rapid population growth and although much of the urban development has resulted in both economic and social development, a large portion has been to the detriment of environment and cultural values. The history of Tauranga's urbanisation suggests that until recently, development generally showed little consideration for Māori cultural and environmental interests. Local and national governing bodies enacted legislature that enabled rapid urbanisation, overlooking and marginalising Māori interests and rights (Waitangi Tribunal Report, 2010).

With such an exponential influx in population, the pressure on local infrastructure and amenities increased. Although tāngata whenua recognise that in the face of development some degradation of the environment is inevitable, Māori are perplexed and discouraged by the 'thoughtless and irresponsible' developments that take little or no consideration for the fragile environmental systems in which they exist (Waitangi Tribunal Report, 2010). Anthony Fisher of Ngāi Tūkairangi expresses the impact extensive development has had to his people:

"*My hapū is of the very strong view that the railway bridges, harbour bridges, road bridges, causeways, port development, and channel widening, have altered the tidal flow characteristics of the harbour and have been the reason for the disappearance of tītiko from te tahuna o Waipu, the disappearance of tūangi and ureroa beds, the proliferation of mangrove growth in estuaries within the harbour, and the appearance of mangroves in te tahuna o Waipu. Our past objections to port and harbour developments on the grounds that they contribute to this have been countered by volumes of data from scientific and academic experts that is always accepted. But the tītiko, tūangi, ureroa, the channels and drains used by whānau of Ngāi Tūkairangi in which to store their kaimoana after it had been harvested from mātaitai areas, have gone*" (Waitangi Tribunal report, 2010).

This section will discuss the major areas of urban development that have impacted the cultural, social and economic interests of Māori. More specifically this section will review urban growth; waste water, storm water, the Port of Tauranga and the airport.

9.1 Wastewater Management

Over the years wastewater management in Tauranga has been a very contentious issue. Conflicting values and belief systems concerning the management of human waste has led to years of discontent within Māori communities. Māori possess a spiritual, cultural and social connection with water and it is for these reasons, that tāngata whenua do not support the use of water as a medium to transport human waste and its discharge into water bodies (Coffin and Taite, 2004).

Fisher, Piahana, Black, and Ohia describe the discharge of such effluent into the 'Marae of Tangaroa' as a violation of tapu that:

"*constitutes a fundamental transgression which evokes an instinctive and culturally embedded abhorrence . . . the potential exists for kai moana . . . to be contaminated with human excrement, therefore, threatening to make that which is noa, tapu, and that which is tapu, noa*" (Waitangi Tribunal Report, 2010 pg 548).

During a 1997 Hui at Huria Marae, Hohua Tutengaehe, explained to the Minister of the National Government and all those in attendance exactly how the wastewater discharging into the water within Tauranga Moana felt to Māori:

"The waterways, harbour and seacoast, were the refrigerator of the iwi of Tauranga Moana, all polluted by mill discharge, logging, body waste. Just imagine me coming into your house and using your fridge for a toilet. That's how we view the sea and our waterways" (cited in Coffin and Taite, 2004).

9.1.1 *Tauranga Wastewater Systems*

Construction of the first wastewater treatment system began in Tauranga in 1913. A large septic tank located at the Railway Wharf collected sewage from Brown Street to Second Avenue and emptied directly into the Harbour (Coffin and Taite, 2004; Tauranga City Council, 2013). Although this method did not have the approval of the marine department, it went ahead 'out of necessity' (Waitangi Tribunal Report, 2010). Complaints about the smell led the Tauranga Borough Council to propose a change in discharge site from the railway wharf to the Sulphur Point, Waikareao Estuary (Coffin and Taite, 2004).

In 1928, tāngata whenua representing five coastal settlements publicly opposed the Tauranga Borough Councils proposal to dump excessive sewage on the foreshore of the Waikareao Estuary (Tata and Ellis, 2006). Māori strongly objected on the basis that there was insufficient outflow from the estuary to effectively remove effluent, and Māori were concerned about the impact to shellfish beds (Coffin and Taite, 2004). Over 150 Māori signed

the petition (Tata and Ellis, 2006). In the same year, the health department appointed a medical officer who deemed that although the sewage would cause contamination to shellfish beds, the five Māori settlements were far enough away that they didn't rely upon the pipi beds for a food source and the consent was granted (Coffin and Taite, 2004).

During the 1960's it became apparent that the current method of wastewater treatment was not meeting the needs of the fast expanding population. In 1963 the Council began work on a fully reticulated sewerage system. The Chapel Street Plant was officially opened in 1969 (Tauranga City Council, 2013). The treated effluent from the plant was released via a 1500 metre long outfall pipe into the Waikareao Estuary (Waitangi Tribunal Report, 2010). In 1989, the Waikareao outfall was decommissioned and treated effluent was piped to the Te Maunga wetlands before being pumped out to sea via the 950 metre outfall pipe, off the coast of Omanu Beach (Tauranga City Council, 2013).

9.1.2 *Mount Maunganui*

Sewerage systems located at Mount Maunganui were very primitive. Up until the early 1950's, effluent was delivered to an open drain at Commons Ave, which when full would flow out into the harbour. Residents came to rely upon septic tanks until the 1970's, when the Mount Maunganui Borough Council proposed a new scheme, which involved the extensive reclamation of estuary within Te Tāhuna o Rangatāua for the Te Maunga Waste Water Treatment Plant (Waitangi Tribunal Report, 2010).

9.1.3 *Te Maunga*

In the late 1960s through to the 1970s, strong opposition was made to the proposed establishment of a sewerage treatment station, which involved constructing oxidation ponds to treat effluent (Stokes, 1980). The scheme required the substantial reclamation of wetland and estuarine area and involved effluent being temporarily discharged into Te Tāhuna o Rangatāua (Reeder and Jones, date ommitted). From its inception Ngā Pōtiki and Ngāti Pūkenga voiced strong opposition against the establishment of the Te Maunga Waste Water Treatment Centre. Tāngata whenua expressed concern regarding the location of the waste water system and the disregard of cultural heritage values.

In 1969, a petition organised by the Tauranga Māori Executive Council, opposed discharging treated effluent from the wastewater ponds at Te Maunga, into the Tauranga Harbour. 348 people signed it. Part of the petition stated:

"We object most strongly to the intention of the Borough Council for a number of reasons. Firstly, the estuary from the Maungatapu causeway south is largely dry for a great part of the day, together with the extensive mudflats, will restrict the dispersal of any effluent discharged into it.... The pollution of the traditional source of shellfish obtainable from this sector of the harbour, and of numerous swimming spots used extensively by members of the public for a large part of the year... In view of the important part of the common titiko played in our way of life, in the past and to the present day, we feel strongly for the preservation of

our peoples rights by heritage to this seafood available to us from this area" (Coffin and Taite, 2004).

Further opposition focused on the extensive area of wetland reclaimed for the construction of oxidation ponds. This area was identified as a prominent kaimoana collecting ground and was completely swallowed up during reclamation (Coffin and Taite, 2004). A hapū representative of Ngā Pōtiki expressed discontent regarding the proposed discharge and highlighted the conflicting positions of Māori cultural values and urban development:

"*Regardless of how scientifically pure the discharge of wastewater is perceived to be, and the perceived stability of the engineering and technical system, Ngā Pōtiki retain that the location of the Te Maunga system, and ocean outfall is totally offensive*" (Coffin and Taite, 2004).

This statement from Ngā Pōtiki Hapū reiterates the ill feeling towards the location of the oxidation ponds and the suspected seepages into the estuary:

"There's no Titiko, there's no crabs and of course on this side you have sewage ponds and they can't tell me that nothing ever seeped into the harbour. When they first set up the sewage ponds they actually set them up in the harbour with the kind of stop bank around each one. Now I don't know what happened in spring tide but we used to find a lot of toilet paper and stuff in the harbour further down" (cited in Coffin and Taite, 2004).

Haare Williams made this statement in reference to Te Maunga Wastewater Treatment Plant, highlighting the deterioation of mahinga mātaitai and its impact to the people of Rangatāua:

"*Today tītiko are simply empty shells floating with the flotsam which laps along the foreshore at high tide. The substance of the wairua of Rangatāua has been butchered by the lust of commercial enterprise and development around the harbour. The people of Ngā Pōtiki are now unable to provide kai a te rangatira, the Tītiko, to their manuhiri*" (Waitangi Tribunal Report, 2010).

9.1.4 *Katikati/Matakana Outfall*

During the mid 1960's the Katikati Co-operative Dairy Company discharged over 27,000 litres of milk proteins into the harbour every day. The pollution advisory council allowed this to continue on the condition that the discharge was relatively free from suspended solids, grease and oil, and the waste should not cause any noticeable discolouration of water nor give off any foul odour. The consent granted the continuous discharge of dairy waste into Tauranga Harbour until 1979 (Waitangi Tribunal Report, 2010).

During 1974 to 1975, increasing public disquiet provoked the dairy company to commission biological surveys. The surveys showed that the discharge was causing 'considerable adverse ecological changes', which included discolouration; surface scum; disappearance of micro-

fauna; sediment deposition, and algal growth. Faced with losing its permit, the dairy company opted for another alternative, where a pipeline was constructed that ended as an ocean outfall 650 metres off the coast of Matakana Island (Waitangi Tribunal Report, 2010).

The pipeline was installed and consent was granted to dispose the Katikati dairy company factory's waste. As part of the consent process the dairy company met with affected land-owners, however Matakana Island Māori were not notified of the proposal, nor were they invited to attend the consultation meetings. After the closing of the dairy plant in 1982, the Tauranga City Council acquired the pipeline and necessary conversions were made to discharge sewage (Waitangi Tribunal Report, 2010).

In 1977, as required by the initial consent conditions, ecological sampling was carried out. It found that depending on weather conditions and time of day, shellfish up to 1000 metres away from the outfall could become contaminated (Waitangi Tribunal Report, 2010). A more recent report conducted by Beca Steven (1991) determined that the affected area was much larger than first predicted and effects were actually more severe than suggested by the previous studies. This prompted movement towards an upgrade in the current treatment at the Katikati wastewater treatment facility. The new facility saw the oxidation pond of treated effluent pass through wetlands, floating wetlands and a UV treatment plant before finally being pumped out to the ocean outfall (Western Bay of Plenty District Council, 2013). The wastewater plant has consent to discharge until 2016 (Waitangi Tribunal Report, 2010).

9.2 Storm Water

Urban drainage systems are identified as contributing to pollutant and contaminant input into the waterways of Tauranga Harbour. In a natural, undeveloped system, most rainfall would soak into the ground or would be recycled into the atmosphere by vegetation, with only a small portion making its way into the streams and rivers (Ellis *et al*., 2008). However, modern drainage systems collect runoff from impervious surfaces (e.g. roofs and roads) and channel it through pipe networks to marine or riverine outfalls.

Although the purpose of drainage systems is to alleviate flooding, in an urban environment where impermeable surfaces dominate, storm events can cause the inundation and flooding of drainage systems. Furthermore, urban runoff is unfiltered, which perpetuates issues associated with the discharge of urban and industrial contaminants such as heavy metals, oils from roading, chemical fertilisers and detergents (Ellis *et al*, 2008).

9.3 Bridges and Causeways

Construction of urban bridges and causeways in the Tauranga area has seen significant modification of natural land and seascapes. In many cases the developments have caused perpetuating issues. Tāngata whenua identify these developments as being responsible for restricting natural currents, limiting flood tides and causing infilling in the upper estuaries. Furthermore, the activities have caused obvious flow on effects to the local fisheries and the people that rely on them.

Hairini causeway was the first of the major bridge developments and was completed in 1882. Keni Piahana observed that the causeway had contributed to the build-up of 1.5 metres of silt within the Waimapu Estuary. He further explained that by changing the path of water movement and the flow rate, the tidal pools and channels that were once present have silted up, removing the habitats that once supported deeper water fish. Channels and pools that have become shallow experience elevated temperatures and nursery stocks are less likely to tolerate these extreme environments (Waitangi Tribunal Report, 2010).

Almost half a century later the Maungatapu Bridge was constructed (1959) and tāngata whenua also witnessed similar changes to their rohe moana. Wakata Kingi of Maungatapu believes that when the bridge was built it changed the speed at which the tides moved and caused a decline in the abundance of fish moving through the channel known as Opopoti (Tata and Ellis, 2006). The construction of the Harbour Bridge and the Waikareao expressway in the 80s, was also bitterly disputed by Māori, the major concerns of which focused on further loss of ancestral lands, mahinga kai and traditional fishing grounds (Waitangi Tribunal Report, 2010).

As part of the construction of the Tauranga Harbour Bridge, an ecological survey was carried out on the areas that would be affected by the construction of the bridge, the connecting causeways and the dredging of channels. The study found that a large Tūangi bed, Kukuroroa and Pūpū were present and extensive areas of sea-grass provided habitat for juvenile flounder. Trevally, snapper, stingrays, kahawai and kingfish were also observed. Even though the study indicated a considerable presence of kaimoana, it deemed that apart from the Tūangi beds, no other kaimoana would be directly affected (Bioresearches, 1984).

Despite the findings of the 1984 study, whānau of Whareroa Marae have witnessed major effects to the local kaimoana stocks, as a result of the Tauranga Harbour Bridge. Tāngata whenua have witnessed a drastic deterioration of their traditional tūangi, pipi beds and flounder fishing grounds (Waitangi Tribunal Report, 2010). Kihi Ngatai of Whareroa describes the permanent loss of precious shellfish stocks, "*They told us before they put the bridge in, because we were against the bridge going where it is, they told us that eventually, the tūangi and pipi would come back, well they haven't*" (Tata and Ellis, 2006). He goes further to describe some of the wider effects the construction of the Harbour Bridge has had on the local marine ecosystems within the area:

"Before the bridge was built, this was one of the few places in Tauranga where you could catch flounder during the day, pātiki had the rimurimu (sea-grass), when they put that bridge in, the rush of water washed all the rimurimu away. Because the flounder had nowhere to hide we lost the flounder" (Waitangi Tribunal Report, 2010).

9.4 Port of Tauranga Works

The development of the Port of Tauranga has contributed to extensive and significant changes to the coastal environment of Te Awanui. Tāngata whenua have highlighted several serious widespread impacts resulting from major port works including extensive reclamation, channel dredging and land based construction.

The Governor of New Zealand officially established the Port of Tauranga in 1873. The founding of the Tauranga County Council in 1876 saw the harbour reshaped to accommodate an increasing population and enhance the burgeoning economic growth. By the early 1880s the first of a number of major reclamations along the strand began with the construction of the Town and Victoria Wharfs (Waitangi Tribunal Report, 2010). In 1912 the Tauranga Harbour Board was constituted and was given authority to acquire all jetties, wharves, buoys, sheds and beacons within the Tauranga Harbour (Port of Tauranga, 2011).

The Tauranga Harbour Amendment and Foreshore Act 1915 enabled the Tauranga Harbour Board to gain control and authority over the foreshore of the Tauranga Harbour. In the mid twentieth century the drive to develop a deep-water international port within Tauranga Harbour gathered momentum as the region's economy boomed and the Kaingaroa forest matured (Waitangi Tribunal Report, 2010; High-Court of New Zealand, 2012).

Today the Port of Tauranga is New Zealand's largest port and provides for both national and international shipping networks. The twin port facilities comprise an extensive area of port structures, on both the Mount Maunganui and Sulphur Port sides (Port of Tauranga, 2014). To keep up with the constant upgrades and developments, the coastal environments and surrounding lands have undergone intense modification (New Zealand Environment Court, 2011 pg 6). Historical changes to the harbour, as a result of the port activity, include the construction of the wharves, container facilities and the widening and deepening of harbour channels (New Zealand Environment Court, 2011 pg 6).

The Port's immense economic development is highlighted in recent progress reports for the six-month period to December 2013 that boasts a $39.3 million profit and a significant increase in trade, exports and imports (Port of Tauranga, 2014). While tāngata whenua admit that the development of the twin ports has contributed to the local and national economy, they maintain that it has been at the expense of Māori values and the natural resources they relied upon (Waitangi Tribunal Report, 2010). This extract is from the high-court proceedings in an appeal against the Environment Court granting consent to deepen and widen port channels. The statement encapsulates the conflicting stances of both the Port and the tāngata whenua of Te Awanui:

"From an economic standpoint, and certainly when viewed through the lens of a port operator, the consents sought and the motivation behind them are understandable. From a Māori standpoint, however, and seen through the lens of the cultural and historical

significant of the tāngata whenua's environment, the consents had huge adverse effects." (High Court of New Zealand, 2012).

9.4.1 *Port Dredging*

Tauranga Harbour has a long history of dredging activity. To allow for the constant reconstruction and expansion of the port, continuous channel and harbour dredging has been undertaken (Port of Tauranga, 2011). Prior to the 1960s, dredging took place on a small scale and authorities lamented the fact that channels quickly refilled with silt. Significant dredging began with the development of the deep-water port, and dredging was unrestrained from 1961-1974. It was finally capped with the introduction of the Marine Pollution Act 1974, which required the board to better monitor the effects to the environment (Waitangi Tribunal Report, 2010).

Tāngata whenua have relentlessly expressed concern regarding the process of dredging and the associated impacts to kaimoana. The initial dredging for the construction of the Tauranga Harbour Bridge destroyed several large tūangi beds. Not only have tāngata whenua observed changes in the immediate area of dredging but coastal environments further into the harbour have experienced pressure from the dredging activities (Waitangi Tribunal Report, 2010). Areas around the foreshore of Maungatapu, Matapihi, Te Puna and the Islands of Motuhoa, Matakana and Rangiwaea have experienced increased rates of erosion, which threaten many culturally significant landmarks along the coast. Tāngata whenua attribute the unnaturally high rates of erosion in these areas to dredging activities in the harbour (Rolleston, 2010).

Recently, tāngata whenua have publicly opposed further port development and have made appeals to the High Court against the decision made by the Environment Court, granting consent for the extensive deepening and widening of the Port channels. Numerous submissions were lodged which collectively emphasised the historic, present and potential future impacts to Te Awanui. Submissions addressed concerns such as altering tidal currents, erosion, sedimentation, and the potential impact on sites of cultural significance, kaimoana and water quality (New Zealand Environment Court, 2010; Rolleston, 2010; Poka *et al*., 2012).

The major concern in combination with all these effects was the impact that dredging will have on the physical, social, cultural and spiritual relationships with Te Awanui (New Zealand Environment Court, 2010). In submissions, Mr Charlie Tawhiao explained that eating food from Te Awanui was about continuing their traditions and cultural practices and reconfirming their ancient and long lasting links with Te Awanui and Tauranga (New Zealand Environment Court, 2010 pg 53). Mr Brendon Taingahue also expressed the importance of maintaining traditional practices for his children, he hopes to:

"reaffirm their connection to Te Awanui by gathering pipi at Te Paritaha o Te Awanui and kina, paua and other kaimoana at Mauao", for this he believes is *"a fundamental part of what it means to be Ngāi te Rangi"* (New Zealand Environment Court, 2010 pg 53)

9.4.2 *Sulphur Point Reclamation*

Prior to the reclamation of Sulphur Point this coastal area was of significant cultural importance. Reports indicate that the area was a habitat for Tūangi, Pipi, Tupa and Kukuroroa (Tata and Ellis, 2006). The abundant shellfish populations attracted fish species such as snapper and flounder. Furthermore, this area was the only site within the southern end of the harbour that contained a roost for wading birds (Waitangi Tribunal Report, 2010). Many species of birds that were once found at this roost are now endangered or nationally vulnerable (Sinner *et al*., 2011). For example, the banded dotterel still to this day attempts to nest at sulphur point, usually resulting in mortality of the chicks and eggs (Owen *et al*., 2006).

Sulphur Point reclamation began in 1928 with several unapproved small reclamations. With verbal approval of the Tauranga Harbour Board, contaminated mill waste was dumped on the foreshore as fill. During the 1940s, local factories and businesses used the mudflats as a dumping ground, depositing sawdust and trade waste along the foreshore. This continued periodically until the Tauranga Harbour Board began to enact their envisioned twin port structure (Waitangi Tribunal Report, 2010).

In 1968 reclamation of Sulphur Point began in earnest. The works began with the construction of a 1524 metre long training wall to encourage scour and prevent silting-up of the channels. Following the continuous dredging of the channels to keep them at a constant depth, the dredge spoils were deposited behind a training wall to allow for a slow accumulation of land. By 1982, this area amounted to 89 hectares and by 1989, after further work, Sulphur Point was New Zealand's largest container terminal (Waitangi Tribunal Report, 2010).

Tāngata whenua affected by the reclamation described how the development at Sulphur Point had affected the fisheries and access to them. Lance Waaka of Ngāti Ruahine, made this statement:

"Before the land was dredged and reclaimed we'd get our cockles and pipis from down by where the Sulphur Point marina is now. You can't get them now, and we're brassed off. If you take more than 250 you'd get fined, but the Council allowed the land there to be dredged and a channel dug right through to put in the marina, which destroyed them all. They put the marina in to make money, the council gets rentals from the million dollar boats parked over our kai [whereas] we were going there for a feed" (Waitangi Tribunal Report, 2010).

9.4.3 *Mount Maunganui Reclamations*

Prior to the Port's establishment, a long white sandy beach stretched from the marae of Whareroa to Waikorire (Pilot Bay). This was met on the landward side by an extensive wetland that supported the people of Ngāi Tūkairangi with fish, eels and materials such as raupō and harakeke (Te Kani, 2006). In 1955, the Harbour Board began reclaiming areas

around the Tauranga Harbour so that by 1971, over 29 hectares had been reclaimed for the Mount Maunganui side of the Port. Reclamations associated with the Mount Maunganui Port have impacted upon large areas of Ngāi Tūkairangi's rohe, in particular their precious wetlands, which were the principal source of fuel (Waitangi Tribunal Report, 2010).

10 RURAL DEVELOPMENT

Prior to human occupation New Zealand was covered in forest that extended from below the alpine line to the coast. The arrival of Māori saw some clearance of forest (via burning) to encourage the growth of bracken, to allow space for cultivation, to make foot-passage easier and as a strategy for hunting moa (Ewers *et al*, 2006). With the arrival of European settlers land clearance was initially slow and comprised mainly of the burning of grassland to make way for stock such as sheep (Macleod and Moller, 2006). The Crown policy regarding the natural resources of New Zealand, was that they '*existed to be developed and the land made fit for occupation.*' They encouraged the burning of native forest and the draining of wetlands (Waitangi Tribunal Report, 2010).

With an expanding population, the opening of the railway system and the creation of new roads, the rate of forest clearance accelerated on a national scale and was focussed mainly around the lowland areas (Ewers *et al*, 2006). During the 1930s, farming intensified and the conversion of forest to pasture increased (Macleod and Moller, 2006). After new developments in fertiliser and pesticide technology (1930s), farmers were able to utilise unproductive lands, and a new era (1940s) began where land-use became intensified and the horticulture industry took off (Macleod and Moller, 2006).

The lands surrounding the Tauranga Catchment are dominated by horticulture and agriculture, which contribute to 41% (50, 783 ha) of the total land catchment area (123, 234 ha) (Hall, 2013). The agricultural and horticultural industries are at the core of Tauranga's economy and are a major element of employment and social development. For the Tauranga Catchment lands to provide for the demands of these two industries, significant and extensive land cover conversions, land enhancement systems and rural amenities are required to optimise land use and cater to the needs of rural communities. This section will describe the major environmental changes observed by tāngata whenua as a result of rural development in the lands surrounding Te Awanui, and will make links to the impact these activities have had on both the coastal environments and the people of Te Awanui.

10.1 Riparian Zones

A riparian buffer zone is a vegetated strip of land along the margins of a waterway that provide a buffer between the water and the land. When runoff from the surrounding catchment runs through the riparian zone, contaminants and nutrients contained in the runoff are trapped in the roots of the vegetation, preventing these potentially damaging contaminants from entering the stream or river. A healthy riparian margin consists of canopy trees that provide shade, stabilise stream banks and support nutrient removal (NIWA, 2014). The extensive conversion of native bush to rural pasture has seen considerable areas of riparian zones removed or significantly modified. Tāngata whenua understand the ecological importance of riparian margins and this understanding is expressed in a statement from a Ngāti Taka representative:

"...vegetation along the banks are not there just to look pretty, they have a purpose. They have an interconnected relationship between land and water, they hold the land and act as a filter from land to sea, without them there is little control on what enters the waterway" (Ngāti Taka, 2011).

Land management practices such as insufficient stock-fencing have been identified as contributing to the poor health of riparian margins. Insufficient stock fencing can allow stock access to fragile salt marsh, river and stream margins, which can damage existing riparian vegetation belts and can compromise the stability and structure of the river/coastal banks (Ngāti Taka 2011). As a result of the poor stock fencing, there is point source pollution from defecating stock going directly into the river systems, which has implications on nutrient inputs into the waterways and leads to negative effects on bathing suitability (Ngāti Taka, 2011).

Tāngata whenua have voiced their concern regarding the condition of riparian margins and would like to see pest species removed and replaced with native species (Blackett, 2008). In recent years the proliferation of invasive weeds along the riparian margins of rivers and streams has become a substantial problem (Peters and Clarkson, 2010). In some areas the removal and/or modification of riparian margins has allowed exotic flora to colonise river and coastal margins. Native flora is fast out-competed which has cascading impacts to native riverine invertebrates and fauna (Peters and Clarkson, 2010).

10.2 Water Quality

Issues identified regarding rural run off largely concentrate on agricultural chemical contaminants. For years tāngata whenua have voiced concern regarding the contaminants that wash into tributaries and estuaries of Te Awanui from the surrounding rural lands. These contaminants include: fertilisers, insecticides, miticides and fungicides, as well as hormone and growth enhancement additives. Many of these chemicals (especially insecticides) have the ability to bio accumulate in the fatty tissues of aquatic fish and be passed through the food chain to humans (cited in Tata and Ellis, 2006). Debbie Heke Kaiawha of Huria believes that we should go back to organic methods of agricultural and horticultural farming. She believes that the orchards and farms within the Waimapu and Poike areas are affecting the Waimapu River and Estuary:

"... It's because of all the paru that is coming off the farms, all the spraying, all the development, all the waste" (Tata and Ellis, 2006).

Bacterial contamination of rivers and streams was a 'serious problem' in Tauranga by the mid 1990's. This was largely the result of continued agricultural development, combined with little regard for riparian protection (Waitangi Tribunal Report, 2010). Particularly affected were the Wairoa, Waitao, Waipapa, and Waimapu Rivers, and the Kōpūrererua and Te Puna Streams. All of these tributaries have been found to periodically exceed the safe for bathing limit of bacteria counts set by Toi te Ora Public Health (Sinner *et al*, 2011). In some of these

waterways, industrial and urban development compounded the agricultural runoff problem (Waitangi Tribunal Report, 2010).

In recent years, as a result of stringent regional regulations and growing environmental awareness, agricultural discharges into streams have been substantially reduced. Environment Bay of Plenty has monitored water quality at sites in both the harbour and surrounding streams since 1990 and the results from these studies show a marked improvement in water quality (Scholes, 2012). Tauranga Harbour now consistently complies with the water standards required for bathing, and shellfish have improved in quality with respect to bacterial contamination since monitoring began (Waitangi Tribunal Report, 2010).

10.3 Septic Tanks

Rural areas surrounding the Tauranga Harbour predominantly rely on septic tanks (On-Site Sewage Treatment Systems) for processing their wastewater (Sinner *et al*., 2011). Septic tanks are less effective at nutrient and contaminant removal than reticulated systems and are more at risk of ground water seepages (Wellington Regional Council, 2000). When seepages occur, nutrients, bacteria and viruses can infiltrate the ground water systems and can infect drinking water and kaimoana as well as lead to the eutrophication of sheltered bays (Wellington Regional Council, 2000).

The effects of storm water run-off and recurring seepage from septic tanks into the storm water drains, is highlighted as a major concern to the semi-rural community of Whānau a Tauwhao ki Otawhiwhi. The whānau express issues arising from septic tank overflows within the subdivision adjacent to Otawhiwhi Marae. Their chief concern is the pollution and potential destruction of their kaimoana beds, which are located near the outfall site (Te Whānau a Tauwhao, 2011). The dispersal of untreated wastewater directly into the culturally significant estuary has been linked with tipping the natural balance of the ecosystems and damaging the mauri (life essence), therefore affecting the stable state and recovery processes of the ecosystem (Te Whānau a Tauwhao, 2011).

Tanners Point, Ongare Point and Te Puna are three rural coastal communities situated in lands surrounding Te Awanui. All three of which have been identified as areas most effected by seepages and leaks from septic tanks (Western Bay of Plenty District Council, 2014). In particular, Ongare Point and Te Puna West are identified as having inadequate treatment facilities, and the frequency of seepage has adversely affected the water quality within localised areas of the Tauranga Harbour (Sinner *et al*., 2011; Western Bay of Plenty District Council, 2014).

11 LAND WATER INTERFACE

11.1 Wetlands

Wetland is the broad term used to describe 'areas of marsh, fen, peat or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres' (Ramsar Convention Secretariat, 2006). Wetlands are often associated with the margins of rivers, lakes and estuaries and they form a boundary between land and water. Wetlands are valued for their functions in water quality, hydrology and ecology as well as being important to cultural values (Sinner *et al*., 2011). They improve coastal waters by acting as both a physical and biochemical filter to immobilize sediment and pollutants. They act as barriers in extreme weather events, buffering the effects of flooding and lessening the impact of droughts by slowly releasing water back into the system (Sinner *et al*., 2011). Wetlands have a high ecological value and shelter many threatened species of birds, insects and fish (Sinner *et al*., 2011).

Wetlands are culturally significant features of the natural environment and are extremely important aspects of Māori culture and traditions. Morehu Rahipere describes the significance of the Kopurererua stream and wetlands, and makes reference to the different types of resources and activities that he associates with the area:

"*A stream where we often went to as young people, the banks of which were clustered with native trees plus large bushes of flax from whence my mother and others went to fetch their harakeke for making kite and whāriki. Along the foreshore of the Waikareao Estuary, is where my mother would take kite and whāriki for dying purposes. This place was called Parekaia, and currently, that is where the Tauranga Archers Club now stands. In between waiting for them to gather enough flax, we would do our own thing as kids; jumping into the cold waters for a swim sometimes catching eels, a beautiful playground nearby called the Te Auetū Valley. . .*" (Rahipere, 2010).

Many wetland areas around Te Awanui were sites of significant historic events, and some conceal sacred burial sites that are considered wāhi tapu by tāngata whenua (Ellis *et al*., 2008). These areas are afforded the utmost protection by tāngata whenua as the resting place of tūpuna (Ellis *et al*., 2008). One example speaks of Tahataharoa, an important wāhi tapu located at the mouth of the Wairoa River. The dying request of Tutereinga, a prominent Ngāti Ranginui chief is captured in these words that highlight his relationship with the area:

"E koro ana mate koe, e hiahia ana koe kia takato koe i te taha o mātua e moe mai ra i te tihi o Mauao? E kao, engari me moe ahau ki Tahataharoa kia rongo ai ahau i te tangi o te tai."

"Old one, when death comes, is it your desire to lie with your forebears who slumber on the crest? No, take me to Tahataharoa that I may hear the murmur of the sea." (Rolleston et al., 2004)

Tāngata whenua of Te Awanui recognise the natural cleansing and filtering properties of wetlands. This is emphasised by a statement by Paul Borell who describes wetlands as a "*filtering system that perform much the same function as a liver in humans*" (Taiapa *et al*., 2014). The wetland filtration process involves complex ecosystem interactions between water, soil, vegetation, macro and microorganisms, all working at different levels to remove nutrients and contaminants (Nichols, 1983). According to tradition, all waste was returned to Papatuanuku and passed through the land as an act of purification, in essence, changing tapu back to noa (Ellis *et al*., 2008). Wetlands represent Papatuanuku in the aquatic environment and allow the water to return to a state of noa, whilst removing the excess nutrients, chemicals and sediments contained within run-off (Waitangi Tribunal Report, 2010).

Wetlands are a rich source of biodiversity that provide Māori with many resources. Wetlands are home to a quarter of all New Zealand's land birds (Johnson, 2012) and provide migratory species of birds vital feeding and resting areas (Standon, 2013). Wetlands provide habitats for many fish and invertebrate species; they also contain a large portion of New Zealand's native plants, including rare and endangered species (Johnson, 2012). For generations wetlands have supplied tāngata whenua with magnitudes of natural resources such as food, plants for weaving, medicines and dyes (Rolleston, 2010, Waitangi Tribunal Report, 2010). Wetlands are the home of a diverse range of taonga species such as fish, shellfish, and bird (Ellis *et al*, 2008). Wetlands also provided for traditional practices such as timber seasoning, storing and preserving taonga and were also used as landing sites for waka (Ellis *et al*., 2008).

The destruction of these ecosystems has left Tauranga Māori with very few sites from which to harvest their traditional cultural resources. Te Karehana Wicks, spokesperson for Te Whānau a Tauwhao, noted that development had destroyed or closed access to all, bar one raupō spring from which her hapū formerly collected dyes and raupō. Now they have insufficient resources to maintain customary practices and are forced to use nylon in their tukutuku panels (Waitangi Tribunal Report, 2010 pg 530). Ellis *et al*. (2008) discusses wetlands as a source of paru (traditional dye) that was used for piupiu and tukutuku. They further suggest that due to the early wetland drainage schemes, most, if not all paru sites are gone, or their whereabouts are no longer known (Ellis *et al*, 2008).

Harakeke (native flax) is a common feature of Bay of Plenty wetlands and over the years has been subject to a history of pressure from both commercial and rural development (Waitangi Tribunal Report, 2010). Traditionally, harakeke leaves were used for clothing, fishing lines, whariki, kete and for bird snares. Bundles of the dried harakeke stalks were used as floats or rafts and the nectar from the flowers was used to sweeten food and beverages (Gerbeaux, 2006). The entire harakeke plant was used as rongoa Māori for many different purposes (Gerbeaux, 2006). In the 1880s, flax was recognised for its potential economic value and although early attempts to commercialise the resource failed, there were no attempts to

control the overuse and destruction of harakeke groves (Stokes, 1980). The loss of harakeke was documented as early as the 1920's in an article in the Bay of Plenty Times (1924). It noted that flax was 'not being conserved or protected' and 'the flax bearing lands are gradually being brought in for farming purposes' (Stokes, 1980).

11.1.1 *Wetland Regression*

Wetlands nationwide have been subjected to the pressures of urban and rural land development. Historically, developers largely ignored the potential of the indigenous resources of the swampy lowlands of New Zealand and regarded them simply as impediments to production (Waitangi Tribunal Report, 2010). Similarly in the urban areas, development and growth overshadowed the significance of wetlands. This was particularly evident in Tauranga with the construction of the port, railway systems, roads, causeways and the airport. During such developments large areas of wetlands were acquired, all of which were drained or reclaimed (Waitangi Tribunal Report, 2010). The Bay of Plenty Regional Council estimates that over 1000 hectares of wetlands were drained and reclaimed within the Tauranga Harbour area alone (Sinner *et al*., 2011; Waitangi Tribunal Report, 2010). Furthermore in the Bay of Plenty region, less than 1% of the original wetlands remain today (Sinner *et al.*, 2011).

The draining and reclamation of wetlands in the lands surrounding Tauranga Harbour has significantly impacted whānau, hapū and iwi of Te Awanui. Tāngata whenua have illustrated the loss of traditional landscapes, wahi tapu, and cultural resources. In many cases the blatant disregard for cultural values in the name of development was identified as the basis for the loss of tino rangatiratanga and kaitiakitanga of culturally significant wetlands (Waitangi Tribunal Report, 2010; Tata and Ellis, 2006; Ellis *et al.*, 2008; Taiapa *et al.*, 2014).

Some examples of major wetland reclamations include the Judea wetlands, which suffered extensive draining during the 1912 and 1933 schemes, where almost 1200 acres of the Judea wetland at the mouth of the Kōpūrereroa River at Waikareao were drained. The Judea wetland contained an urupā (cemetery), several puna (springs) and a hōpua (tidal pool) used for baptisms. It was also a source of food, harakeke and raupō for Ngāi Tamarāwaho.

The people of Whareroa Marae lost an important wetland stream when the reclamations for the deep-water wharf and airport took place. Te awa o Tukorako, was a culturally significant stream used to collect and store kaimoana, the loss of which still deeply affects Ngāi Tukairangi today (Waitangi Tribunal Report, 2010). Kihi Ngatai of Whareroa describes his memories of Te Awa o Tukorako:

"Wahi tapu ra tena ne Te Awa o Tukorako I reira ka metia ka totiahia nga mea. That was where all the old people used to go and catch eels at night and as children we used to play along the seashore in the sand" (Tata and Ellis, 2006).

In 1934, the government acquired land from Ngāi Tūkairangi through compulsory acquisition to build Tauranga Airport. Although Ngāi Tūkairangi fought the acquisition, developments went ahead (Ellis *et al*., 2008). This included the clearing, draining and filling of significant wetlands and streams (Tata and Ellis, 2006). Not only were these wetlands part of the natural order of a highly developed ecosystem for filtering run-off (Tata and Ellis, 2006) but they were a major provider of food and the principal source of fuel for these hapū, who relied heavily on open fires (Ellis *et al*., 2008).

11.1.2 *Wetland and Riparian Margin Restoration*

Today, there is greater recognition of the cultural and ecological value of wetlands and riparian margins. There is a huge community push toward preserving and enhancing not only the remnant wetlands of Te Awanui but the wetlands of the wider Bay of Plenty region. Māori community groups are making a considerable contribution to the restoration and enhancement efforts in the region. Through building constructive working relationships with government agencies and research groups, Māori conservation groups are steering collaborative community driven programmes. For example, representatives of Ngā Pāpaka o Rangatāua, NIWA, and New Zealand Landcare Trust initiated the joint initiative Te Awa o Waitao Restoration Project in 2004. It was developed as a result of concern among local hapū regarding the water and habitat quality issues in the Waitao Catchment (Blackett *et al*., 2011). In 2008 the group joined other concerned landowners to form the 'Waitao-Kaiate Environmental Group' (Denyer and Akers, 2011). Since its inception the group has carried out significant riverine restoration, including weed eradication, riparian and wetland replanting, and extensive monitoring (Blackett *et al*., 2011).

Similarly, the Matakana Island Environment Group was established, "*To restore, protect and enhance our biodiversity on Matakana Island whilst providing employment and education for the people– Mana Whenua, Mana Moana, Mana Tāngata"* (Matakana Island Environment Group, 2010). Over the years the group have had a number of major successes; including the Matakana Island Dotterel Breeding Programme, and the construction of Te Akakura Matakana Island Nursery in 2009, which provides native plants to many wetland and riparian restoration projects both on the island and mainland (Matakana Island Environment Group, 2010).

11.2 Awa

The Tauranga Harbour catchment encompasses an extensive area of land (123,539 ha) which is carved out and shaped by numerous streams and rivers, that spring from high in the ranges and hills surrounding Te Awanui. These tributaries are extremely significant cultural features of the landscape. Relationships with these areas have been forged over generations of occupation and interaction with both the land and waterways. These binding relationships are emphasised in korero by a Ngāti Kahu descendant, describing the cultural connections to their river:

"Ko te Awa te mauri o tenei rohe, Ko te awa te wairua o matou tipuna, Ko tatou te awa, ko te awa ko tatou."
"The mauri of the rohe flows through the river, the spirit of our Tipuna flows through the river, we are the river and the river is us" (Ngāti Kahu, 2011).

Te Awanuiarangi Black articulates the connection that his hapū, Ngāti He, have with the tributaries of Te Tāhuna o Rangataua. He highlights not only the vital connections from land to sea but also the spiritual connection his people have with the landscape:

"The Rangatāua Estuary is the life blood of our people, 'ngā wai koiora', that courses through our veins: its tributaries the Waitao, Kaitemako, Omatata, Otamarua, Te Waiu and Te Awanui are the veins that supply it, and thus us with life giving nutrients – life itself . . . all living breathing features of our ancestral landscape" (Waitangi Tribunal Report, 2010).

Tauranga Māori have relied on the riverine resources for generations and have thus become intimately familiar with all aspects of the riverine environments. Ngaronoa Rewiti-Ngata of Wairoa Marae describes the importance of rivers as a vital life sustaining resource:

"The Awa provides kai for the people, healing for the sick, rongoa along the banks, shelter for wildlife, a passageway from the ngahere (bush-land) to the moana (sea) and a passive recreational haven for those who seek to enliven their physical, mental, and spiritual nature as whānau, hapū, iwi as community collectively or individually" (Tauranga City Council, 2012).

Rex Smith of Hangarau describes the importance of rivers as a means of sustaining the people, he recollects the magnitude of fish resources that were once available within the Wairoa River when he was a child: "*There were so many fish in the Wairoa River, especially mullet, they were so thick, you couldn't see the bottom of the river in the shallows"* (Tata and Ellis, 2006).

Te Hihinga Harold Rawson also recalls the days when the Wairoa River was teeming with fish. He describes the Hakao Stream, a wāhi tapu of Pirirakau; "*large schools of mullet and Kahawai would run through the Hakao stream from the river (Wairoa) to the estuary before dispersing off Oikimoke Point*" (Tauranga City Council, 2012).

Morehu Rahipere of Ngāi Tamarāwaho recalls childhood memories of the Kopurererua Stream, and remembers swimming in the sparkling waters, while his mother collected harakeke from the abundant riparian fringe. He describes the pristine beauty of the area and recollects a vast wetland, known as Parekaia, which his mother would bring kete and whāriki to for dying (Rahipere, 2010).

Over the years however tāngata whenua have observed significant changes in the riverine environments surrounding Te Awanui. Development, modification and conversion of lands surrounding rivers and streams have all greatly altered the natural riverine processes and functions. Each stream, river and waterway surrounding Te Awanui has a story, and tāngata whenua who have lived and observed the impacts can describe each story in great detail. Eddie Tiepa Bluegum of Ngāi Tamawhāriua describes the pristine condition of the Te Rereatukāhia River, as he remembers as a child and compares it to its current polluted state. He recalls: *"Playing as a child in the Rereatukāhia River learning to swim, drinking the water without fear, and catching many kinds of fish. Recently though, the water has become polluted with 'green sludge', strange weeds, agricultural runoff, and spray drift. The fishery has dramatically declined, and the area is known to all as Stink Bridge"* (Waitangi tribunal Report, 2010).

Jack Wharekawa of the Katikati Māori Tribal Committee expresses his wishes for Te Rereatukāhia River, which is severely affected by agricultural and horticultural contaminants, "*We are very concerned that the Te Rereatukāhia River be made cleaner, so that our children may once again swim in the pools, which used to be clear and deep, but now are filthy with mud and slime. We want to continue to be able to collect shellfish and other foods from the harbour*" (Waitangi Tribunal Report, 2010).

Although the stories for each river and stream differ, the major themes are very similar. Rural development and the conversion of native forest for farming and horticulture are identified by tāngata whenua as major contributors to riverine degradation. Rural development has been examined in great detail in earlier chapters, and will therefore not be discussed here. This section will concentrate more specifically on major developments such as hydropower schemes and quarrying.

11.2.1 *Hydro Schemes*

Between 1915 and 1979, the increasing demand for electricity saw the establishment of a number of hydro-electric power stations along the tributaries of the Wairoa River. The first of such developments was the Ōmanawa Power Station, which harnessed the waters of the Ōmanawa Stream and was opened in 1915. Shortly after, the Mclarens Falls Power Station, which received input from the Opuaki and Mangapapa streams, was constructed along the upper reaches of the Wairoa River and was commissioned in 1925 (Bellamy, 1982).

The Mangapapa Power Station was opened in 1979 and received input from the Mangapapa Stream. After the Mangapapa scheme became operational in 1979, tāngata whenua began to express concern over the loss of flow in waterways such as the Mangapapa Stream (Delahyde, 2007). This concern set the scene for a history of discontent that was amplified in 1981 following the opening of the Ruahihi Power Station (Waitangi Tribunal Report, 2010). The day after its opening, an error in one of the feeder canals resulted in its collapse, causing massive destruction and on-going problems (Delahyde, 2007). The collapse created a tsunami-like freshwater wave that flooded surrounding farms and brought sediment down into the receiving estuary (Tauranga City Council, 2012). The wildlife associated with the river almost completely disappeared for several years, and the physical character of the river was altered dramatically, becoming wider, shallower and changing the structure of the river forever (Waitangi Tribunal Report, 2010).

Effects of the canals collapse were immediately felt and tāngata whenua expressed a feeling of despair and helplessness. Minnie Gotz enunciated her feeling of desolation at the 1998 Waitangi Tribunal Hearing at Wairoa Marae,

"I te paparutanga mai a te Ruahīhī. Ka haere māua ko taku tāne ki te awa ka kitea māua i te tere o te paru i roto i te awa, tino kino taku pōuri, nā te mea ka kino tō mātou awa. Ka mate ō mātou oranga. Kei te tino mamae tonu te ngākau ki tēnei mahi o tauiwi. Kua mimiti haere te awa me ngā kai, i roto me ngā taha paripari, kua ngaro hoki ngā harakeke a kui mā"

"At the time of the Ruahihi Dam Collapse, we went, my husband and I to the River, we saw the fast flowing floodwater, dirty, the silt and mud, the pollution in the river. My heart was heavy, great was my pain, overcome with the sadness, because of the appearance of the River, it wasn't good, it was bad, all I could think was, our river that provides and sustains is dying, our livelihood has gone. The gnawing hurt of my heart continued at this handiwork of the European people . . . The food source lost to us, places for fish to spawn, gone. The flax bushes that were used by our Kuia since I can remember, have all gone, there was nothing remaining" (Tauranga City Council, 2012).

The event saw the destruction of natural riverine habitats; the loss of fauna within the Wairoa River, and the permanent loss of much of the shellfish and fish resources (The Crown and Ngāti Ranginui, 2012). According to tāngata whenua, the quality and quantity of shellfish within the lower reaches of the Wairoa River before the collapse was excellent. Henare Rahiri describes the fisheries in the Wairoa River before the collapse of the dam;

"Our food then was tuna (eel), snapper, and towards the mouth of the river, herrings and mullet. We used to see the mullet jumping but not now since the dam collapsed, the river bed has been altered. Today it has all changed, there's hardly anybody that comes to fish now" (Tauranga City Council, 2012).

Dulcie Harnett too spoke of the fisheries preceding the collapse; she spoke of a channel that ran adjacent to the Wairoa River. She spoke of the effects of sediment influx that the collapse created:

"The channel was used by the old people as a 'fridge'. Pipi, tūangi and kūtai would be put into it as a living storehouse, which could then be kept for months, even years. The shellfish would bury themselves in the sand until they were ready to be harvested. This channel no longer exists thanks to the Ruahihi canal collapse, which completely covered it with silt" (Tata and Ellis, 2006).

Hydro schemes have also been associated with modifying the natural flow of streams and rivers. Dams and reservoirs can alter the natural course and velocity of waterways, resulting in changes to the ecological functioning of river systems (Young *et al*, 2004). The dams and reservoirs along the stretch of the Wairoa River and other freshwater bodies within the Tauranga Harbour catchments have significantly affected the natural currents and consequently, the sensitive riverine ecosystems. Elizabeth Ormsby of Ngāti Kahu spoke of Ruahihi Dam and its impact to the currents of the Wairoa River: *"The River was ruined by the Ruahihi Dam, it changed the flow of the water, it used to be swift"* (Tata and Ellis, 2006). Representatives of Ngāti Hangarau describe the permanence of the impacts resulting from upper catchment hydroschemes. They believe the flow rate of the Wairoa River was changed forever, and with it the local fisheries (Waitangi Tribunal Report, 2010).

11.2.2 *Quarrying*

The Kaitemako Quarry lies on the border of the Otanewainuku Forest Park and is surrounded by native bush. The headwaters of the Waitao River snake their way around the quarry site. The hapū of Te Tahuna o Rangataua have raised major concerns surrounding the environmental impacts to the Waitao River and consequently the Rangataua Estuary as a result of quarrying activities upriver. Tāngata whenua believe the mauri of the river has been harmed, and sacred sites along it damaged and destroyed. They have witnessed the effects of the Kaitemako Quarry, which are evident in the stream mouth and into the Rangataua Estuary, where silt is reported to have built up to around one metre deep (Waitangi Tribunal Report, 2010).

Hapū of Te Tahuna o Rangataua are upset about the accelerated sedimentation experienced within the bay. Tāngata whenua are adamant that the Kaitemako Quarry at headwaters of the Waitao Stream is partly responsible. It is believed that the constant release of slurry and tailings, as well as the periodic release of storm water has led to the increased turbidity within the Waitao Stream and the Rangataua Estuary. Some of the typical effects of high suspended sediment include: discolouration of water, loss of seagrass, damage to fish habitat, increased phosphorous supply and a loss of aesthetic value (Waitangi Tribunal Report, 2010).

Tāngata whenua have witnessed the impact of quarrying on local fisheries, Kiakino Paraire of Ngā Pōtiki describes the changes he has observed:

"The Waitao Stream use to be the cupboard of the rivers for Ngā Pōtiki. You know for the food. Eels, herrings- thousands of herrings used to come up out of that stream. You could almost walk over their backs, walk over the backs of the fish. But that's when kai was plentiful, and that stream was actually flowing. It changed after the quarry started up at Waitao. They put all the slag and slush in it . . . The water was actually clear and now it's brown. That all comes from the quarry at the top there" (Waitangi Tribunal Report, 2010).

The quarrying activities have caused major sedimentation and infilling of channels throughout the Waitao Stream and Te Tāhuna o Rangatāua Estuary (Coffin and Taite, 2004). Tāngata whenua believe that infilling associated with the quarry is responsible for the loss of shipping channels that were once used by launches to gain access to the Waitao River (Waitangi Tribunal Report, 2010). Infilling of estuarine channels within Rangatāua Estuary has also led to the disappearance of fish species associated with deeper waters (Ellis et al., 2008).

12.1 Erosion and Sedimentation

Historically estuaries throughout Te Awanui comprised of large, white compact sands and the estuarine channels were deep enough for large launches to navigate (Ellis et al., 2008). The land was forested from below the alpine-line right to the sea, where the riparian margins of rivers and coasts were covered with native trees and most contained wetland buffers (Waitangi Tribunal Report, 2010). The conversion of native bush to urban and pastoral lands significantly changed the landscapes surrounding Te Awanui. The native bush was removed right down to the sea, leaving the land vulnerable to erosion (Ellis et al., 2008). Consequently, the eroded sediment from the land, riverbanks and coast is washed into streams and eventually into the receiving Tauranga Harbour (Ellis et al., 2008).

12.1.1 *Erosion*

New Zealand has seen a long history of clearing and removal of native forest. Studies show that prior to human settlement, the clearing of native forest was rare and only occurred as a result of natural events such as lightning, earthquakes and volcanic eruptions. With the arrival of Maori, fire was used extensively to clear thick dense native bush for the purpose of hunting, cultivations and settlement. Forest clearing was greatly accelerated with the arrival of European settlers; the growing population saw it climax throughout the 1870s. During this period of settlement the exploitation of indigenous forest by Maori and European saw the loss of approximately three-quarters of New Zealand's native forests (Ewers *et al*., 2006; Guild *et al*., 2009).

In Tauranga native forest removal followed similar national trends, and clear felling of native forest finally stopped in the 1970s due to widespread public concern and alarm at the increasing evidence of erosion. Neil Hansen (a county engineer in the Bay of Plenty) reported in 1968, that although there had been no landslips in the last 20 years, they were a serious and spreading problem, which he attributed to the clearance of vegetation (Waitangi Tribunal Report, 2010). When the conversion of forest to pasture occurred, the deep roots from native trees were removed and replaced with shallower rooted grasses, which are not as efficient at soil retention, especially in hilly country. The soil once bound by native roots is lost during rain events and washed into rivers and sea (Pawson, 2009).

Coastal erosion is the retreat of a shoreline due to water currents, waves and wind and is a natural process that can be influenced by human activities (DeLange, 2012). There are two types of coastal erosion: cut and fill erosion-which occurs on sandy beaches and can be replaced over time, the second type is known as permanent erosion, which occurs in hard coasts and cannot be replenished (DeLange, 2012). Hard coasts erode at a rate predominantly controlled by the strength of the rock; hence softer rock erodes faster. The lack of riparian vegetation on softer coasts can lead to the acceleration of eroded sediment (DeLange, 2012).

Many hapū have raised concerns over the increased rate of coastal erosion occurring within Te Awanui (Taiapa *et al*., 2014; Ellis *et al*., 2008; Te Whānau a Tauwhao, 2011; Waitangi Tribunal Report, 2010; Rolleston, 2010). Tāngata whenua identify the lack of native riparian vegetation along coastal and riverine margins as a major cause of erosion (Taiapa et al., 2014, Ellis et al., 2008). Tāngata whenua relate the establishment of exotic vegetation to coastal erosion, and have observed that:

"...the planting of non-indigenous vegetation such as pine trees, which have different root systems to native, don't retain the land as well as native trees in other areas. That coupled with constant high tides leads to significant erosion. This is commonly seen in areas such as Motuhoa, Waipa, and Raropua" (Ngāti Taka, 2011).

Tāngata whenua are extremely concerned about the accelerated rate of erosion that threatens cultural sites of significance (Taiapa et al., 2014; Te Whānau a Tauwhao, 2011; Waitangi Tribunal Report, 2010). In some areas of Te Awanui, culturally significant features such as marae, urupā and wāhi tapu are also affected by erosion. During a hui at Otawhiwhi Marae, it was indicated that a sea wall was constructed on the estuarine side of the Otawhiwhi Marae in response to the compounding impacts of erosion. Whānau believe that this erosion prevention strategy has been largely ineffective and that erosion continues to occur (Te Whānau a Tauwhao, 2011). Keni Piahana of Ngāi Te Ahi made this remark in regard to loss of cultural landscapes:

"*Because of the erosion of the cultural landscape, the integrity of the remaining heritage sites must be retained to ensure continuity of knowledge, experience, values, life and customs of Ngāi Te Ahi and other hapū"* (Waitangi Tribunal Report, 2010).

Erosion not only causes loss of land but the deposition of the eroded soil and sediments can cause significant impacts to estuarine ecosystems and geomorphology. Tāngata whenua have reported the accretion of eroded sediment occurring at several sites around Te Awanui. Chrissie Rolleston of Pirirakau has reported that the Oikimoke point in Te Puna has grown by several metres over the past ten years, while the urupā directly up the coast of the site of accretion has suffered severe erosion (Rolleston, 2013).

12.1.2 *Sedimentation*

The infilling of estuaries is a natural process and in a natural balanced system the rate of infilling is dependent upon a fine balance between the tides, waves, currents and riverine input. Anthropogenic impacts however have severely accelerated the process of accretion making changes that are not usually seen for several centuries, palpable within a lifetime (Tillin *et al*., 2011). The very fine balance in the sedimentary "digestion system" of estuaries can be easily upset by inputs arising from human disturbances (Bell *et al*., 2000; Tillin *et al*., 2011)). The changes from sandy sediment to mud have been observed within the lifetime of many kaumatua, illustrating the rapid rate in which the infilling process has occurred (Tata and Ellis, 2006). Mania Sampson of Huria recalls a time when the Waikareao Estuary was

used as a landing strip for the airport (1930's), she speaks of the pristine quality of the estuary, *"The beach in those days, was a really nice beach, it wasn't muddy or anything, it was hard as, it wasn't muddy, anything could land on that beach when the tide was very low"* (Tata and Ellis, 2006).

Tāngata whenua have identified sediment smothering as having devastating effect on mahinga kai, biodiversity and ecological habitats within Te Awanui (Ellis *et al*., 2008). In particular tāngata whenua are most concerned about the effect that sedimentation is having on kaimoana and seagrass beds (Waitangi Tribunal Report, 2010; Sinner *et al*., 2011). Increased turbidity as a result of suspended sediment, can limit light penetration and therefore impede plant growth such as seagrass (Dos Santos, 2011). An increase in suspended sediment can clog the gills of filter feeders such as tūangi, mussels and pipi, which can effect growth and lead to shellfish loss (Teaioro, 1999). Tāngata whenua also relate sedimentation to the decline in mud crab populations. The people of Rangatāua Bay have noted the pāpaka that were once present in large concentrations on the mudflats of the bay have almost completely disappeared (Waitangi Tribunal Report, 2010).

12.2 Kaimoana

Tāngata whenua have a very unique relationship with Te Awanui and its resources. Kaimoana not only sustains the physical wellbeing, but it is linked to the preservation of traditional practices. The act of collecting kaimoana requires one to have an in-depth knowledge of the environment, including seasonal changes, ecosystem interactions and processes. In terms of Māori tradition, this knowledge regarding the collection of kai is passed down through generations, adapting and moulding to the changing times. The preservation of such knowledge requires a relationship that is nurtured and valued, a relationship that recognises kaimoana as sustaining and preserving the people and culture.

Te Hiringa Harold Rawson of Pirirakau made this statement during a Waitangi Tribunal Hearing 1998; he describes the connectedness of gathering kaimoana, to people, to the land, and to the sea:

"My father grew up at Oikimoke, my grandmother and her brothers were born there. Her mother was born there as was her father and his mother. I also grew up at Oikimoke and together with my father; brothers, cousins and uncles, we all took part in harvesting of the natural resources from around our kainga. My father's mentors and teachers were his mother and uncles with whom he had been raised. As children we were fortunate to have one of those Kaumatua living next door. My knowledge and understanding of our heritage and environment came principally from him and my father. We as children were their kaimahi in the setting of nets, fishing, the harvesting of shellfish and the gathering of harakeke and rongoa Māori from areas in and around Tahataharoa. It was they who showed us how to create warm sleeping places in the sand at Oikimoke and Te Tawa for when we fished overnight. We learnt how to seek Parore in the oioi (sea rush) fringes of Te Tawa and how to attract them and Patiki to those areas" (Waitangi Tribunal Hearing, 1998 cited in Tauranga City Council, 2012).

In giving evidence for the port dredging Mr Charlie Tawhiao explained that eating food from Te Awanui was about continuing their traditions and cultural practices, as well as reconfirming their ancient and long standing links with Te Awanui and Tauranga Moana (New Zealand Environment Court, 2011 pg 53). Mr Reon Roger Tuanau of Te Whānau a Tauwhao explains that the importance of kaimoana is the practice, the tikanga and the kawa associated with the resource and the pride and learning derived from harvesting it (New Zealand Environment Court, 2011 pg 54). Morehu Rahipere also summarises what it means to collect Kaimoana:

"Te Awanui and some of its many tributaries has been more than just a place for gathering seafood and providing sustenance to whānau, hapū and iwi. It has been pivotal to sustaining a way of life, maintaining well-being, upholding cultural and spiritual practices, which are all integral as a part of me as Ngāi Tamarāwaho and as Ngāti Ranginui" (Rahipere, 2010).

Heeni Murray of Matakana Island describes practices of gathering kaimoana in terms of how it nurtures whānau and community interactions.

"The process of gathering kai moana had a strong whānau element to it . . . We all went out on fishing expeditions as a whānau and as a community. It was great fun for the younger ones, helping to set and haul in the nets. There were the horse riders, driving the fish up the channel into the waiting nets, and there were others tramping and spearing flounders. These episodes are just a memory for us now" (Waitangi Tribunal Report, 2010).

For generations hapū have sustained themselves on the resources of Te Awanui. Hapū are defined by their ability to act and provide for specific functions as tāngata whenua and kaitiaki. Many cultural functions still rely greatly on the capacity of the environment to provide resources (Waitangi Tribunal Report, 2010). Kaimoana is a very important way of showing manaaki, hospitality and generosity which are key cultural values upheld by iwi and hapū of Te Awanui. Stokes (1992) describes this when she said:

"*The mana of the tribes of Tauranga Moana has traditionally been associated with their control of kaimoana… the mana of the tribes today is still measured by their ability to provide a wide variety of seafood at marae gatherings."*

In a recent report, the Hapū of Matakana expressed their unique connection to kaimoana, by stating:
"Traditionally, the bountiful resources of the moana have always provided sustenance to the hapū of the Islands and are referred to as the 'pātaka kai' – the food cupboard. Kaimoana features in the diets of all Islanders as a fundamental food source, and underpins our cultural identity and obligation to provide these taonga when hosting visitors" (Poka *et al*., 2012).

Some kaimoana have particular value as the mana kai, or kai wairua -the particular food symbolising the mana of the people and place. For the hapū of Ngāti Pūkenga, Ngā Pōtiki a

Tamapāhore, and Ngāti Hē, this special delicacy is the tītiko. For Ngāti Tapu it is the pūpū (cats eye); for Ngāti Kuku, it is the kuku - the green-lipped mussel (cited in Waitangi Tribunal Report, 2010). Ngāti Taka identify kukuroroa as a taonga species, its significance is highlighted by one member who stated that:

"*Some people/hapū use paua, some use mussel but traditionally we used the shell of the kukuroroa within our carvings, the kukuroroa represented the kaimoana within our area, these were a much sought after shellfish*" (Ngāti Taka, 2012).

Tūangi is of particular importance to Te Whānau a Tauwhao, who are well known for having large, sweet tūangi (Te Whānau a Tauwhao, 2011). Te Whānau a Tauwhao link tūangi to upholding the mana of their tribe, one hapū member explains: "*...we were known for providing the sweetest tūangi in Aotearoa and the manuhiri come from far and wide for hundreds of years specifically for the tūangi. For the last three years we've seen those tūangi disappearing from our tables, it effects the way people perceive us and effects our mana*" (Te Whānau a Tauwhao, 2011).

The ability to provide manuhiri with these traditional foods is critical to demonstrating key cultural values such as manaakitanga and whānaungatanga. Ngahuia Mereana Dixon gives this example of manaaki as practiced within the Rangataua area.

"When people have travelled to Maungatapu or other Rangataua marae, tītiko on the table would be their way of gauging manaakitanga or looking after people. The measure of the iwi is the food served out to manuhiri" (Waitangi Tribunal Report, 2010 pg 500).

Tāngata whenua consistently refer to the once abundant kaimoana stocks of Te Awanui, all bays and inlets were once a plentiful source of kaimoana, shellfish and fish (Stokes, 1993; Ellis, 2010). Waitangi Tribunal Report of 2010 describes the diversity and abundance of kaimoana:

"*The harbour and coastal environment provided all Tauranga hapū with an enormous range and quantity of kaimoana and mātaitai, including tītiko, pūpū, kukuroroa, tio, kokoto, kuharu, pipi, tūangi, kuku, kanae, wheke, kahawai, pioke, tāmure, paua, arāra, haku, inanga, kōeaea, tuna, tarakihi, and pātiki."*

Keni Piahana recalls witnessing, "*flounder being trapped with the feet, herrings scooped up by hand, and nets so overflowing with fish that they could not be hauled in; the nets had to be cut to set the excess free*" (cited Waitangi Tribunal Report, 2010 pg 497). Similarly, Iria Friconnet Stokes of Ngāti Kuku describes the reliance on coastal resources: "*Kaimoana was our lunch every day. The sea fed us and we swam in it all day*" (Waitangi Tribunal Report, 2010 pg 498).

A local kaumatua Stephen Pearson recalls the abundance of snapper in the Waimapu: *"There were certain times when snapper would come right up the river (Waimapu), to outside of the*

marae (Waimapu pa)". He also recalls fishing in the Waimapu and explains that *"The bottom of the Waimapu was salt water from the sea and the top half was freshwater from the Kaimai's, at this time you could wander into the estuary in water up to your calves and see the snapper in abundance"* (Tata and Ellis, 2006). Similarly Karahi Te Mete (Rex Smith) of Hangarau describes his memories of fish stocks, "*I can recall seeing so many fish and it's something I'd never forget. There were so many fish in the Wairoa River especially mullet, they were so thick, you couldn't see the bottom of the river in shallow water"* (Tata and Ellis, 2006 pg 7).

12.2.1 *Declining Kaimoana Stocks*

The development of both urban and rural lands has been condemned for the detrimental affects to kaimoana habitats of Te Awanui. Tāngata whenua identify overharvesting, land conversion, land runoff, riparian margin removal, wetland drainage, port works, and urban infrastructure as contributing to the ongoing decline in kaimoana. Rolleston *et al.* (2004) describes the impact that development has had on kaimoana stocks:

"*Historically kaimoana provided tāngata whenua with a staple diet. However, increased development in and around our estuaries and harbour regions has had detrimental impacts on kai-moana stocks. Runoff from farms and orchards, outfalls from stormwater, siltation from residential development and seepage from septic tanks into the harbour have all played a role in eroding the traditional kai-moana resource. Hapū around Tauranga find it increasingly difficult to maintain their mana and traditions over kai-moana stocks*" (Rolleston *et al*, 2004).

Heeni Murray of Matakana describes the decline in kaimoana and explains how the collection of kaimoana and natural resources is intertwined with the mana of the individual and their hapū:

"The bounty of the ocean was one of our main baskets of food. Over the years, for many reasons, these baskets cannot now be filled. Again it all comes back to our mana over ourselves and our resources. We could walk down to the sea to spear flounder for breakfast. However, today this is not the case" (Waitangi Tribunal Report, 2010).

12.2.2 *Pipi*

Historically, pipi beds were found extensively throughout Te Awanui, each bed was recognised as 'he pātaka kai' or food storage. Kihi Ngatai recalls: *"the pipi beds being so thick in the Harbour you could hear the snapper feeding on them at night time"* (Waitangi Tribunal Report, 2010). Kaumatua recall harvesting pipi from large pipi beds and bringing them back in huge kete. They would empty the pipi into small intertidal channels adjacent to marae or kainga sites where they would remain fresh and could be collected when needed (Waitangi Tribunal Report, 2004, Ngāti Taka, 2012).

Although pipi were abundant, tāngata whenua still maintained strict management practices. Te Whānau o Tauwhao describes pipi management within their rohe. Pipi were harvested from a number of different beds, which ensured that each bed was never over-harvested. Te Whānau a Tauwhao no longer apply this practice as stocks have declined to such an extent that only one prominent bed remains actively harvested (Te Whānau a Tauwhao, 2012). Rolleston (2010) describes a set of traditional practical rules used to protect natural marine habitats, one rule relates specifically to the preservation of shellfish habitats and states that sacks and baskets must be lifted, never dragged over shellfish beds. Disregard and neglect of these cultural regimes has been related to destruction of shellfish beds. An example of this describes the use of metal tools for collecting shellfish, and the extensive use of drag netting over pipi and mussel beds. These practices are identified as being responsible for tearing shellfish from the bottom and damaging juveniles (Taiapa, 2014).

Today, although pipi are the most abundant of all bivalves within the harbour (cited in New Zealand Environment Court, 2011 pg 42), the impacts from human developments have significantly impacted the populations and habitats. Te Paritaha is the largest pipi bed within the harbour, and is renowned for its plentiful supply of pipi. This bed has been a customary harvesting ground for many generations and is evident by the extensive areas of shellfish middens in lands surrounding the bed. Paritaha is still harvested today and is one of the few remaining sustainable shellfish beds within the harbour. Tāngata whenua have expressed concern regarding the significant changes to the pipi bed and are anxious about the future effects of port developments. In giving evidence against the proposal to deepen and widen the port channels, Mr Morehu Ngatoko Rahipere described that:

"*At one time prior to the port development at Sulphur Point, Te Paritaha was much larger and easily accessed by foot. This is no longer achievable due to the extensive channel modification and port developments"* (cited in New Zealand Environment Court, 2011).

In recent years the proposal to widen and deepen the port channel has again threatened to significantly modify Te Paritaha pipi bed. Official reports state that, "*Dredging would remove sand and all marine life present, along a 90 m to 100 m wide swath of the eastern edge of Te Paritaha. The remaining sand would slump to form a batter along with the new channel edge*" (New Zealand Environment Court, 2011pg42). Evidence provided by the chief ecologist Dr Grace stated that: *"The area of impact of the widening process is only a small fraction of the area occupied by large and accessible pipi, and would be of little consequence to pipi populations or to their access by shellfish gathers*', he also states that overall '*there will be some loss of pipi, but that the numbers lost would be small, that the resources is significant with little effect on juvenile pipi. The dredging would not compromise the sustainability of these resources from a physical perspective due to its size, and the small area proportionally affected by the dredging*" (cited Hill *et al.*, 2010 pg 29, Dr Grace's Evidence).

Although researchers suggest there will be little impact to harvesting capacities, tāngata whenua remain sceptical. Ngāti Kahu highlights this apprehension in a submission against the dredging proposals where it states:

"*We fear that we will not be able to access our customary kai gathering areas or that they will not cope with the interferences, damage and modifications and thus no longer be there to access, history tells the story and supports our concerns here*" (Bennett, 2010).

Tāngata whenua base their scepticism on experience, many times throughout history tāngata whenua were improperly reassured that an activity would not significantly impact their cultural resources. An example of this is given by Kihi Ngatai who recalls that, in a debate over the effects of the proposed Harbour Bridge, he was told by a professor that even though the pipi bed would be "*temporarily disrupted, it would return*". He goes on to say that there is one old kaumatua who checks on the pipi bed daily, and it has never returned (Waitangi Tribunal Report, 2010).

The pipi populations in Tauranga Harbour have suffered a long history of impacts from pollution and contaminants. One prominent example occurred during the 1920 – late 1950s period when the Tauranga Borough Council discharged untreated raw sewerage into the Waikareao Estuary, this contaminated pipi beds that many Tauranga Māori relied upon (Waitangi Tribunal Report, 2010). Today, this type of discharge into the harbour is unheard of. The Bay of Plenty Regional Council inforce strict consent and monitoring procedures for discharge into waterways, and Toi te Ora Public Health Service administrate shellfish monitoring to ensure the safe consumption of shellfish in the Bay of Plenty (Scholes, 2008).

12.2.3 *Tūangi*

Tūangi have experienced very similar impacts to that of the pipi and have been subject to extensive habitat change. Although tūangi are still widely distributed throughout the harbour, the most resounding theme identified by tāngata whenua regarding tūangi, is the decline in harvestable stocks. Over the years Te Whānau a Tauwhao have observed a significant reduction in tūangi sizes. One hapū member told stories of visitor's admiration for the size and abundance of tūangi available to the hapū (Te Whānau a Tauwhao, 2011). These accounts however cannot be replicated in the marae functions today, due to dwindling stocks (Te Whānau a Tauwhao, 2011). Nga Roimata Ngatai-Cavill of Whareroa also describes the lack of edible tūangi:

"In the old days tūangi were plentiful. Now if you go out in front of the Whareroa Marae, you will see multitudes of tūangi on top of the sand when the tide is out. There are mounds of tūangi and if you look inside them, you will find that they are very small. To me they have moved from their natural habitat and are still trying to find a home or breeding place. The natural breeding places of the tūangi in this area have been overtaken by the wharves at Mount Maunganui and the development at Sulphur Point." (Te Kani, 2006)

12.2.4 *Tītiko*

The tītiko is a delicacy of Tauranga Moana and is known by local Māori as 'the food of the chiefs'. This is highlighted in a report by Auckland councillors after a visit to Maungatapu Marae, it explained *"Māori of Tauranga once maintained a reputation for Tītiko, being the most sought after in the land. Whenever a Hui was held in Tauranga it was expected of the local marae to produce tītiko in large quantities"* (Williams, 1977).

Tāngata whenua associate the decline of tītiko to pollution and contaminants. Paki Ross of Ngāi Tūkairangi comments on the destruction of the local tītiko populations and associates this with industrial waste discharged into the estuary: *"One of our staple foods in those days was the tītiko, a shellfish which has since disappeared, approximately 4-5 years ago. I believe a major reason for this is due to the discharge from the fertiliser works into the sea"* (Te Kani, 2006). Nan Walker of Hairini believes run-off from urban and industrial areas is killing the tītiko in the Waimapu estuary (Taiapa *et al*., 2014). Mahaki Ellis spoke about the tītiko within the Waipu bay, he believes their disappearance is due to the impact from sea lettuce and pollution (Te Kani, 2006).

12.2.5 *Scallops / Kukuroroa / Kutai / Kina*

Kūtai and kina are shellfish species of particular significance to the people of Te Awanui. Tāngata whenua speak of collecting mussels, kina, paua and koura at the southern entrance of the harbour and on rocks at the foot of Mauao (New Zealand Environment Court, 2011 pg 51). Te Whānau a Tauwhao has a significant area for collecting green-lipped mussel. Harvesting of mussels still takes place within their traditional area today, however tāngata whenua have raised serious concerns regarding the depletion of remaining mussel stocks due to over harvesting. Hapū also mentioned that recruitment stocks of mussel and horse mussel are waning due to the absence of size limit restrictions (Te Whānau a Tauwhao, 2011). Tāngata whenua speak of kina habitats located in the harbour entrance at the base of Mauao, Graeme Borrell believes these beds are the main kina breeding stocks for Te Awanui (New Zealand Environment Court, 2011 pg 51).

Scallops and kukuroroa are known to aggregate in a number of channels and sub tidal sandbanks throughout the harbour. It has been reported that scallop and horse mussel beds found adjacent to channels are in severe decline (Green, 2008). Their decline has been linked to recreational scallop dredging and in 2008 the Tauranga Moana Customary Fisheries Council applied for a temporary ban on scallop dredging within the harbour. The application however was declined and the practice continues today (Green, 2008). A study by Rameka and Taiapa conducted in 2006, found that sedimentation can affect the distribution of scallops and kukuroroa. The report also suggests that the accumulation of sediment can cause scallops to actively relocate, while sediment tolerant kukuroroa establish (Rameka and Taiapa, unpublished).

12.2.6 *Invasive Species*

In recent years tāngata whenua have observed the effects of introduced invasive biota. Tāngata whenua are particularly concerned about the impact these species will have on the native biodiversity and habitats of Te Awanui. Invasive species threaten not only the ecosystems, but they also pose a wide range of problems to cultural, environmental, social and economic values (Ellis *et al.*, 2008). The discharge of ballast waters and hull fouling are on-going concerns. Tāngata whenua are worried about the potential effects foreign organisms could have on the already wounded ecology of Tauranga Harbour (Rolleston, 2010).

A 2008 report highlights the impacts of the Asian Date Mussel on a once densely populated, culturally significant pipi bed in Southern Tauranga Harbour. The study found that once established, the invasive mussel displaced an entire pipi bed, leaving a thick mat comprised of abyssal thread and fine sediment (Taiapa, unpublished). Of particular concern to the Bay of Plenty Regional Council is the clubbed tunicate, *Styella clava* (Sinner, 2011). *Styella clava* has the ability to establish thick blankets, suffocating growing shellfish and out competing for food and space (Kluza *et al*., 2006). The recent discovery of a single Mediterranean fan-worm (*Sabella spallanzanii*) by a University of Waikato diver in Pilot Bay is disquieting to both tāngata whenua and maritime agencies (Gillespie, 2013). The Mediterranean fan-worm is a highly invasive species that can be transported in ballast water and hull-fouling. The fan-worm is known to form dense beds that potentially interfere with the physical and biological processes below its canopy (Ministry for Primary Industries, 2012). In the case of the Tauranga Harbour, a single specimen was identified and removed and an immediate survey response did not reveal any more (Gillespie, 2013).

12.3 Flora

12.3.1 *Seagrass*

Seagrass (rimurimu or nana) is the only true flowering marine plant species in New Zealand (Dos Santos, 2011). Seagrass 'forests' are found within sheltered shallow embayments and estuaries and are known, in terms of biodiversity, to be the richest habitat within the New Zealand estuarine environment (Turner and Schwarz, 2006). Seagrass beds provide many different benefits such as soil stabilisation (Bay of Plenty Regional Council, 2009), providing habitats for juvenile fish species and as refuges from predation, competition and physical stressors (Dos Santos, 2011).

Records show that during the period from 1959-1996, more than a third of all seagrass present within the Tauranga Harbour disappeared (Dos Santos, 2011). The Bay of Plenty Regional Council has identified increased turbidity as the biggest threat to these habitats (Bay of Plenty Regional Council, 2009). A recent study found that the compounding outcome of herbicides and black swan graze also have a significant effect on seagrass beds (Dos Santos, 2011).

12.3.2 *Mangroves*

The New Zealand Mangrove (Manawa) *Avicennia marina* subsp. *australasicais* is native to New Zealand and is the most southerly growing mangrove species in the world. Mangroves prefer a substrate of muddy waterlogged sandy soil, and areas high in light penetration. They are very salt tolerant and can survive in a variety of different salinity concentrations. Once mangroves are established within a harbour, their presence encourages the proliferation of more mangroves (Morrissey, 2007).

There are references to mangroves in stories pertaining to the arrival of Te Arawa waka to Te Awanui. These accounts tell how the dense mangrove growths were confused for kumara vine. Because of this mistake people of Te Arawa waka ate all their precious kao (dried kumara) stores and kumara seeds thinking there was no need for them. When the incoming tide covered the 'kumara vines' the people realised their error, however it was too late and the majority of the kumara stores had been eaten (Te Whānau a Tauwhao ki Otawhiwhi, 2011; Stokes, 1980).

Mangroves within Tauranga Harbour have increased at an almost exponential rate (Stokes, 2010). Residents of Te Awanui are concerned at the accelerated growth rate and are dismayed at the loss of water views and access to the harbour (Stokes, 2010). Tāngata whenua opinions are divided, most view the mangroves as beneficial to fish species and a vital part of the coastal ecosystems, whilst others view them as a nuisance (Ellis, 2008).

Parengamihi Gardener of Maungatapu believes that these plants play a vital role in the functioning of Tauranga Harbour:

"*There is a place for our mangroves. There are mangroves down here, nga kai kei reira. I don't mean it should be allowed to take over, kei reira hoki nga ika nga tītiko. Some people would say to get rid of the lot, 'look at what it is doing to our scenery, blow the scenery', it's like a natural nursery. It filters pollutants, I don't like to see them here, but there is a place for them"* (Ellis, 2008).

Iwi members have identified the spread of mangroves as a tohu (sign) of an unbalanced system and have observed the displacement of traditional fisheries habitats (Waitangi Tribunal Report, 2010). A spokesperson of Te Whānau Tauwhao relayed their thoughts on the reasons behind the recent explosion of mangroves:

"When you cut down the trees next to the moana, the moana replies by establishing trees next to the land. The presence of mangroves is a tohu to display a way of the ecosystem adapting to the environments, this is the same with sea lettuce" (Te Whānau a Tauwhao, 2011).

In 1997, members of Pirirakau hapū worked together with the Waikaraka Estuary Care Group on a care programme to restore the Waikaraka Estuary (Stokes, 2010). Part of the care programme included the removal of mangroves and the opening of silt-laden channels

(Stokes, 2010). Six years later an assessment was carried out to measure the outcome of the restoration program, results found the re-establishment of healthy and abundant Titiko populations, return of small sand banks and less silt build up (Stokes, 2010).

12.3.3 *Sea Lettuce*

Sea lettuce is a native Ulva species of algae that forms sheets of around 30 cm long. At certain times, thick mats of sea lettuce accumulate in the estuaries and along the beaches of Te Awanui. When the sea lettuce breaks down it releases a toxic gas, which creates a strong odour that many residents find offensive (Bay of Plenty Regional Council, 2013).

Tāngata whenua of Te Awanui express concern regarding the increase in sea lettuce blooms. Some hapū recognise that although sea lettuce can have detrimental effects to shellfish communities, the extensive growth is merely a response to the influx of anthropogenic stressors such as sedimentation, pollutants and eutrophication (Waitangi Tribunal Report, 2010). Members of Ngā Pāpaka o Rangatāua believe that the proliferation of sea lettuce in Te Tahuna o Rangataua is linked to the oxidation ponds (Coffin and Taite, 2004). A representative of Ngā Pōtiki explains:

"... and of course the sewerage ponds and all that. There was a guarantee from the powers that be that there won't be any leakage from the ponds, but I'd like to know where we got that lettuce from. It was an unknown thing before" (Coffin and Taite, 2004).

12.3.4 *Spartina Grass*

Spartina grass, also known as cord grass, was introduced to New Zealand to assist with foreshore protection, land reclamation and marshland stabilisation (Bay of Plenty Regional Council, 2011). However its use in Tauranga Harbour has resulted in overgrowth, which threatens the indigenous estuarine ecology (Bay of Plenty Regional Council, 2011). Dulcie Harnett recalls the spray programme that was carried out below Hangarau to eradicate the invasive grass. She explained that directly after this application all the Titiko in the estuary died off. The hapū of Ngāi Tamawhāriua explains how the spartina control programme affected them:

"While we are in the outer reaches of the harbour, we are still affected. The spraying of Spartina grass by M.A.F students fifteen years ago, has demolished our titiko and oyster beds around the moana. Any more changes in our harbour will only further endanger the already declining natural food stocks of Tāngata Whenua and our wider community" (Te Rereatukahia, 2010).

13 CONCLUSION AND RECOMENDATIONS

During pre-colonisation kaitiakitanga was embedded in Māori culture and traditions. As kaitiaki, Māori were responsible for sustaining and preserving physical and spiritual connections to the people and the environment. The history of Tauranga Moana has followed a common national theme, whereby the rights and responsibilities of tino rangatiratanga and kaitiakitanga were severely eroded by means of colonial legislative mechanisms. In the past Māori cultural values were not recognised in European law, and legislative Acts were instated that denied and disempowered Māori management authority, resulting in significant long lasting effects to the cultural, social, economic and political welfare of Tauranga Māori.

Today, the people of Te Awanui are experiencing a phase of re-emergence, which is encapsulated in the title of this report, Ko te Hekenga i te Tai a Kupe (The receding of the great tide of Kupe, or The receding King Tide). Here the 'Great Tide of Kupe' refers to European colonisation, where at its crest, was subsuming and overwhelming. With the receding of the colonial tide, there is a strong re-emergence and reassertion of kaitiakitanga in Tauranga Moana and nationwide. Tāngata whenua of Tauranga Moana have collectively embraced opportunities to assert rights as kaitiaki, and in recent years have reached a number of significant milestones. Although there have been huge advances in customary management authority, the situation remains far from ideal and Tauranga Māori still face a long road ahead to fully realise their aspirations for the management of Te Awanui. The customary management authority of tāngata whenua in today's context is still authorised and governed by government ministers and because of this, application remains limited. The processes and procedures for asserting kaitiakitanga continue to be dictated by legal frameworks and Māori are forced to conform to government prescribed criteria, or their cultural interests are sidelined. To fully recognise the customary management authority rights of tāngata whenua, there must be a genuine commitment at local, regional and national level to building decision-making authorities based on true partnership. Tāngata whenua must have fair and equal representation on decision-making councils. Kaitiakitanga has been eroded through legislative mechanisms responsible for the removal of decision making authority, therefore it is at this level that kaitiakitanga must be reinstated.

Tāngata whenua require tools and knowledge systems to support developing and moulding kaitiakitanga within its contemporary context. Although western science methodologies for assessing environmental health are well established, cultural knowledge systems have experienced a period of devaluation. In the past, customary knowledge was considered uncreditable and was not weighted in decision-making. Memon (2010) discusses that a knowledge-gap was created due to the lack of management opportunities for Māori, during the period of 'division and disparity' following European colonisation. He makes reference to findings of Tipene O'Regan, who describes the period as being in 'freeze frame' due to the fact that Māori were not in positions of management authority of their environment and resources, and therefore did not have the opportunity to naturally develop and mould cultural knowledge systems and practices over time. We recommend that to support kaitiakitanga of

Te Awanui, further investigation should be focused on filling the ‘cultural knowledge gaps’ to best inform and guide tāngata whenua in their kaitiaki roles.

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15 GLOSSARY

Ahi Ka To keep the home fires burning, maintaining traditions and passing them on from one generation to another.
Ao world, realm, domain
Aroha affection, sympathy, charity, compassion, love, empathy
Ataata common cat's eye *Turbo smaragdus*
Atua ancestor with continuing influence; god
Hapū sub-tribe
Hinengaro mind, thought, intellect, consciousness, awareness.
Hui meeting; gathering
Hururoa/ureroa/kukuroa Horse mussel *Atrina pectinata zelandica*
Ika fish, marine mammal – any creature that swims in fresh or salt water
Ingoa tawhito old/ancient name
Iwi tribe
Kahawai Australasian salmon *Arripis trutta*
Kai food, meal; to eat
Kaimoana seafood, shellfish
Kāinga home, residence
Kaitiaki guardian, custodian
Kaitiakitanga guardianship, stewardship
Kanae Mullet
Kaumātua elderly, aged man
Kaupapa matter for discussion, proposal, subject, programme, theme, topic, policy
Kaupapa Māori Māori ideology incorporating the knowledge, skills, attitudes of Māori society
Kawa marae protocol - customs of the marae and wharenui, particularly those related to formal activities
Kete basket, kit
Kikokiko flesh, can be used in reference to the physical world
Kina sea urchin *Evechinus chloroticus*
Kīngitanga King movement - movement which developed in the 1850s, culminating in the anointing of Pōtatau Te Wherowhero as King. Established to stop the loss of land to the
colonists, to maintain law and order and to promote traditional values and culture.
Koeaea Whitebait
Korero pakiwaitara to tell of legends, folklore
Kotahitanga unity
Koura crayfish – both freshwater and saltwater
Kuia elderly, aged woman
Kuku green lipped mussel
Kupenga traditional fishing net
Marae the complex of buildings where Māori live/meet for formal meetings and discussions.
Mahi work, job, employment, practice, occupation, activity, exercise, operation.
Mahinga kai food gathering places; garden
Mahinga mātaitai traditional seafood gathering place
Mana prestige, authority, control, power, influence, status, spiritual power, charisma - mana is a supernatural force in a person, place or object

Manaaki support, hospitality
Manaakitanga the nurturing of relationships; protection, blessings, show respect or kindness.
Manuhiri visitor, guest
Maomao (blue) *Scorpis violacea*. N.B. Māori refer to pink maomao (*Caprodon longimanus*) as mātā
Maramataka Māori planting and fishing calendar based on the phases of the moon
Mātaitai (reserve) a fisheries management tool under the Fisheries Act 1996, recognising and providing for customary management practises and food gathering. A mātaitai reserve excludes commercial fishing, but allows customary and recreational fishing, as well as bylaws for fishing to be made.
Mātauranga Māori Māori ancestral knowledge, including the Māori world view and perspectives, Māori creativity and cultural practises.
Mauri life force/ life principle that ensures the continual life and quality of all living things that reside within it
Moana Sea, ocean, or large lake
Mōteatea traditional chant, lament, sung poetry, or songs sung in the traditional mode.
Nga Papaka o Rangataua name by which the hapu of – Nga Potiki, Ngati He and Ngati Pukenga are collectively known as
Noa opposite of tapu, normal state
Ora health, vitality
Opopoti channel between Maungatapu and Matapihi, where Te Tahuna o Rangataua empties.
Pāpaka Crab
Papatuanuku earth mother and wife of Rangi-nui. All living things originate from them.
Parengo an edible seaweed (purple laver) – a greenish-purple seaweed with a tough, silky texture. Also referred to as karengo. *Porphyra columbina*
Paritaha also known as centre bank, the flood tide delta located in the middle of the southern basin of Tauranga Harbour, contains an immense Pipi bed
Parore Black bream *Girella tricuspidata*, grazes on sea-lettuce
Pātiki flounder, flatfish *Rhombosolea spp*.
Paua abalone *Haliotis iris, Haliotis australis, Paliotis virginea*
Pepeha tribal saying, proverb
Pipi type of edible bivalve *Paphies australis*
Pioke sand shark
Pōhutukawa New Zealand Christmas tree *Metrosideros excelsa*
Pūpū univalve mollusc – usually a second name identifies a particular species, e.g. pūpū rore is the Arabic volute or *Alcithoe arabica*
Pūrongo report, article
Rāhui a temporary ritual prohibition, closed season, ban or reserve. Traditionally a rāhui was placed on an area, resource, or stretch of water as a conservation measure or means of social and political control.
Rohe territory, region, boundary, district, area.
Rangatahi younger generation, youth.
Rangataua area surrounding what is known as welcome bay estuary.
Rangatira chief (male or female).
Rangatiratanga sovereignty, chieftainship, right to exercise authority.
Ranginui atua of the sky and husband of Papa-tū-ā-nuku, from which union originate all living things.
Raupō bulrush, green swamp plant *Typha orientalis*.
Rimurimu- sea weed, *Ulva lactata*

Rongo-mā-Tāne atua of the kūmara and cultivated food and one of the offspring of Rangi-nui and Papa-tū-ā-nuku; he is also known as Rongo-hīrea and Rongo-marae-roa-a-Rangi.
Tahataharoa prominent waahi tapu, where Pirirakau tupuna Tutereinga was buried
Tāhuna sandbank, shoal
Taiāpure a (generally fisheries) management tool established in an area that has customarily been of special significance to an iwi or hapū as a mahinga kai or for spiritual or cultural reasons. All fishing (including commercial fishing) can continue in a taiāpure, but tangata whena are involved in the management of all fishing in the area.
Tamapahore founding tupuna of Nga Potiki, Marae at the base of Mangatawa.
Tamure Snapper
Tane Mahuta atua of the forests and birds and one of the children of Rangi-nui and Papa-tū-ā-nuku.
Tangaroa atua of the sea and fish, he was one of the offspring of Rangi-nui and Papa-tū-ā-nuku and fled to the sea when his parents were separated.
Tangata whenua indigenous people of the land.
Tangihanga/Tangi funeral, weeping , crying, rites for the dead.
Taonga treasure, anything prized or considered to be of value.
Tapu be sacred, prohibited, restricted, set apart, forbidden, under atua protection.
Tauparapara incantation to begin a speech. Each iwi has a unique, aiding the identification of them when formal introductions are made
Tawhirimatea atua of the winds, clouds, rain, hail, snow and storms, he was also known as Tāwhiri-rangi and Tāwhiri-mate-a-Rangi and was one of the offspring of Rangi-nui and Papa-tū-ā-nuku who did not want his parents separated.
Te Ao Māori the Māori world
Te Awanui original name for Tauranga Harbour
Te Maunga area surrounding the north eastern shores of the Rangataua estuary and extending all the way to the pacific oceam.
Tikanga custom, correct procedure, method, practice
Tino rangatiratanga absolute chieftainship; self-determination (referred to in Article Two of the Treaty of Waitangi).
Tio rock oyster *Saccostrea cucullata.*
Tipuna/tupuna ancestor, grandparent.
Tītiko mud snail *Amphibola crenata.*
Tohu indicator, sign.
Tuangi cockle *Austrovenus stutchburyi.*
Tukutuku ornamental lattice-work - used particularly between carvings around the walls of meeting houses.
Tūmatauenga the atua of war, an offspring of Rangi-nui and Papa-tū-ā-nuku.
Tuna Eel.
Tupa scallop, queen scallop, *Pecten novaezelandiae.*
Urupā burial ground, cemetery, graveyard.
Wāhi place, location.
Wāhi tapu sacred, restricted place.
Waiata song, chant, pslam.
Waikino Dirty water, unhealthy water.
Waiora Clean pure healthy water.
Wairua spirit, soul, quintessence - spirit of a person which exists beyond death.
Whakataukī proverb, saying.
Whakapapa genealogy, lineage, descent.

Whakawhanaungatanga process of establishing relationships, relating well to others.
Whānau (extended) family, family group.
Whanaungatanga relationship, kinship, sense of family connection- a relationship through shared experiences and working together which provides people with a sense of belonging.
Whatumanawa emotions, heart, mind
Wheke Octopus

16 APPENDIX

16.1 Kaitiakitanga of Land and Waterways Legislative Timeline

Treaty of Waitangi 1840

The Treaty of Waitangi was signed in 1840. The treaty established a British Governor of New Zealand, recognised Māori ownership of their lands and other properties, and gave the Māori the rights of British subjects. The English and Māori versions of the treaty differ significantly. From the British point of view, the treaty gave Britain sovereignty over New Zealand, and gave the Governor the right to govern the country. Māori believed they ceded to the Crown a right of governance in return for protection, without giving up their authority to manage their own affairs. The two different versions and interpretations have been the source of years of conflict and struggle. Māori today continue to fight for the rights guaranteed to them by the Treaty of Waitangi.

The English text of the Treaty of Waitangi states that Māori leaders and people, collectively and individually, were confirmed and guaranteed 'exclusive and undisturbed possession of their lands and estates, forests, fisheries and other properties'. In the Māori text, Māori were guaranteed 'te tino rangatiratanga' or the unqualified exercise of their chieftainship over their lands, villages, and all their property and treasures.

The New Zealand Constitution Act 1852

The New Zealand Constitution Act 1852 set up the country's parliamentary system, based on the British model. Elections were held in 1853, and in May 1854 New Zealand's first Parliament sat. A property qualification, based on European land tenure, decided who could vote. This effectively denied many Māori (who owned land communally) and Pakeha the right to vote or participate in parliamentary processes.

Native Lands Act 1862

The Native Lands Act established the Native Land Court, whose role was to determine ownership of Māori land and facilitate the conversion of customary land title into titles derived from English tenure systems (freehold title). This centralized, European-controlled court was based on the settlers' legal system and converted customary title to land into individual title, effectively making it easier for Māori land to be sold to settlers. The Native Land Court had the authority to award lands to individuals rather than hapū or whānau, resulting in land fragmentation and partitioning of Māori land to smaller parcels.

Owners of a block of Māori land had to prove that according to Māori customary law they were its rightful owners, and if successful, would be recorded as owners in the courts records and issued with a court certificate of title. The courts certificate was then produced to the governor as the crowns representative in exchange for a Crown Grant in freehold. This process transferred land rights held according to Māori custom law, for rights derived from the Crown in accordance with the feudal tenure (where all rights to land are derived from the

Crown). Such rights in relation to freehold are characterised by individual exclusive ownership and alienability through sale.

New Zealand Settlement Act 1863

The New Zealand Settlement Act provided the legal framework for the confiscation of Māori lands. The Act was promoted as a measure to assist European Settlement, particularly by placing military settlers on lands as a type of buffer between Māori and European settlements. The underlying intention however was to punish 'rebel' Māori by allowing the confiscation of their land and to finance military efforts. Military settlers would receive sections of land as payment for service, further entrenching European control. Māori considered to be in rebellion were not entitled to compensation, and even 'loyal' Māori were first offered monetary compensation rather than the return of their land. Later, the law was amended to allow awards of land, including small areas to surrendered 'rebels'.

Land Confiscations 1865

The House of Representatives sought to enforce the punishment of 'rebel' Māori via the New Zealand Settlements Act, which allowed for the seizure of Māori land. As a direct result of land confiscations, 40% of Māori land in the North Island was lost during the period 1860-1890. This period experienced the most rapid loss of Māori land and had a devastating and debilitating impact to Māori as a whole.

Coal Mines Amendment Act 1903

The Coal Mines Amendment Act allowed the Crown to extend ownership to navigable rivers, in order to protect 'national interest' in economic use of major rivers and to prevent private control of hunting and fishing.

Māori Affairs Act/ Māori Affairs Amendment Acts

In 1953, the Māori Affairs Act endeavoured to assist with the use and development of Māori land, allowing some flexibility in land management such as trusts. This Act and its subsequent amendments remained the governing legislation for Māori land for 40 years. The Māori Affairs Act 1953 forced unproductive Māori land into use. Anyone who could show the Māori Land Court that a piece of good land was not being used could apply to have it vested in trustees. The Māori Affairs Act therefore allowed the Māori Land Court to vest any uneconomic interests in the Māori Land Trust for administration.

The Māori Affairs Amendment Act 1967 caused particular discontent. It brought in compulsory 'improvement' of Māori lands, including the extension of provisions first introduced in 1953 for the compulsory acquisition of 'uneconomic interests' in land. This ignored the fact that such lands were often the last fragments connecting their owners to their turangawaewae.

The act also allowed for 'Māori Freehold Land' with fewer than five owners to have its status changed to 'General Land' enabling it to be sold or mortgaged. The act authorised Improvement Officers to determine how to improve the economic viability of the land and to

take action to achieve this, such as cancelling existing partitions or requiring alienation of the land.

A member of the Māori Council called this the 'last land-grab'. There were strong protests, including street demonstrations. The law was modified in 1974, and drafting of a new act began.

New Zealand Māori Council 1962

The New Zealand Māori Council was created by the Māori Welfare Act 1962. Since its establishment it has made submissions to government on many matters affecting Māori, particularly issues relating to the Treaty of Waitangi. The act replaced tribal committees with committees representing broader Māori groups and areas, as the government wanted to deal with Māori as a whole, rather than individual tribes.

Since its inception the Māori Council has had several national achievements, some of the major success being: asserting Te Reo Māori as an official language of New Zealand under the Māori Language Act 1987; preventing the sale of state owned forest lands; and assisting in the 1987 High Court injunction, preventing the Crown from allocating further fishing quota until Māori commercial fishing rights had been clarified.

The Waitangi Tribunal 1975

New Zealand has experienced a long history of Māori protest over instances where the Treaty of Waitangi was not observed. The Waitangi Tribunal was set up in 1975 at a time when protests about unresolved treaty grievances were growing and, in some instances, taking place outside the law. By establishing the tribunal, Parliament provided a legal process by which Māori treaty claims could be investigated. The Waitangi Tribunal inquiry process contributes to the resolution of treaty claims and, in that way, to the reconciliation of outstanding issues between Māori and Pākehā.

The Waitangi Tribunal has the power to make findings of fact and recommendations, not binding decisions. The tribunal began hearings in 1977, but at first it could only investigate grievances that had occurred since 1975. In 1985 a law change allowed the tribunal to consider Māori grievances dating back to 1840. The hearing and settlement of historical claims would become a major focus of Māori energies, and some landmark settlements and decisions have been made.

Te Ture Whenua Act 1993

(Parliamentary Library, 2003; Te Kooti Whenua Māori, 2013; Te Ope Mana a Tai, 2003)

Te Ture Whenua Māori Act was passed in 1993 after a great deal of discussion, led largely by the New Zealand Māori Council. The act makes it difficult to purchase Māori land, and it seeks to overcome the problems of fragmentation of titles among multiple owners by providing for various kinds of trusts for managing the land.

The Act remains the Māori Land Courts guiding legislation and has expanded the Court's jurisdiction to allow it to hear cases on all matters related to Māori land. The Māori Land Court today endeavours to promote the retention, use, development, and control of Māori land as taonga tuku iho by Māori owners, their whānau, their hapū, and their descendants.

The Act categorises Māori Land into:

Māori Customary Land:	Being land that is held by Māori in accordance with Tikanga Māori, and no certificate of title has been issued.
Māori Freehold Land:	Being land the beneficial ownership of which is determined by the Māori Land Court by freehold order.
Māori Reservations:	Being land (most often Māori Freehold Land or occasionally General Land) that has been officially set apart for: The proposes of a village site, marae, meeting place, recreation ground, sports grounds, bathing place, church site, building site, burial ground, landing place, fishing ground, spring, well, timber reserve, catchment area or other source of water supply, or place of cultural, historical, or scenic interest, or for any other specified purpose.
Wāhi Tapu:	A place of special significance according to Tikanga Māori.

<u>Court of Appeal Ruling June 2003</u>

(Parliamentary Library, 2003)

The Court of Appeal allowed the appeal of Te Tau Ihu Iwi (which overruled the decision re: Ninety Mile Beach) and found Māori Customary Property in the foreshore and seabed had not extinguished and furthermore, that the Māori Land Court had jurisdiction to decide whether the foreshore and seabed is Māori customary land.

Chief Justice Elias stated that *"....the transfer of sovereignty did not affect customary property. They are interests preserved by the common law until extinguished in accordance with law. I agree that the legislation relied on in the High Court does not extinguish any Māori customary property in the seabed or foreshore.*

..The reliance placed upon English common law presumptions relating to ownership of the foreshore and seabed... is misplaced. The common law as received in New Zealand was modified by recognised Māori customary property interests. If any such custom is shown to give interest in foreshore and seabed there is no room for a contrary presumption derived from common law. The common law of New Zealand is different.

....An approach which precludes investigation of the fact of entitlement according to custom because of an assumption that custom is displaced by a change in sovereignty or because the sea was used as a boundary for individual titles on the shore is wrong in law".

The findings allowed Māori to assert their customary property right to the foreshore and seabed and provided the processes to apply to the Māori Land Court for recognition of those rights.

Foreshore and Seabed Act 2004

In response to the 2003 findings of the Court of Appeal, the Labour Government passed the Foreshore and Seabed Act in 2004, vesting ownership of the foreshore and seabed in the Crown, and contravening all customary property rights granted to Māori. The Foreshore and Seabed Act denied iwi the opportunity to assert their property rights and test them in court.

Marine and Coastal Area (Takutai Moana) Act 2011

(Somerville and Fraser, 2011; Ministry of Justice, 2011)

Due to the huge unrest and conflict seven years after its inception, the Foreshore and Seabed Act (FSA) was replaced by the Marine and Coastal Area (Takutai Moana) Act 2011, which came into force on 1st April 2011. The Takutai Moana Act (TMA) restores customary interests in land, which were extinguished by the FSA. Any application for the recognition of customary interests must be considered and determined as if the FSZ had not been enacted.

The Act established Common Marine and Coastal Areas (CMCA) (Ministry of Justice, 2011). The act states that neither the Crown nor any other person owns, or is capable of owning, the common marine and coastal area. In addition, the Crown and every local authority are divested of every title as owner, of any part of the common marine and coastal area.

Under the Act, Māori can apply to have their customary interests in the CMCA recognised and protected. The Act establishes three levels of protection for Māori customary interests – 1) Participation rights, 2) Protected customary rights and 3) Customary marine title.

Participation Rights

A decision maker must have particular regard to the view of affected iwi, hapū or whānau when considering certain conservation related applications or proposals in the CMCA. Affected iwi, hapū and whānau are those which exercise kaitiakitanga in accordance with tikanga.

Protected Customary Rights

Protected customary rights are activities, uses and practices that have been exercised since 1840, that continue to be exercised in a particular area of the CMCA in accordance with tikanga, and that have not been extinguished as a matter of law. Protected customary rights are essentially a form of use right. They convey upon the holder a right to use resources located in a particular area.

The consent authority cannot grant resource consent for an activity that will, or is likely to, have more than a minor adverse effect on exercise of protected customary rights in an area recognised as a protected customary rights area, unless the relevant customary rights group has given its written approval, or exceptions apply (section 55(3)).

Customary Marine Title

Under the TMA an applicant group may seek recognition of customary marine title for a specified area if that group can prove it holds the area in accordance with tikanga, and has either exclusively used and occupied the area from 1840 to the present day, without substantial interruption or received the area through a customary transfer.

Holders of customary rights title have the right:

- to permit (or withhold permission for) activities requiring a resource consent in the area covered by the title.
- to permit (or withhold permission for) certain conservation processes.
- to input into the New Zealand Coastal Policy Statement and application for marine mammal watching permits.
- to prohibit or restrict access to wāhi tapu within their customary marine title area.
- of *prima facie* ownership of taonga tūturu found in the customary marine title area.
- to the ownership of non-nationalised mineral within the customary marine title area.
- to prepare a planning document setting out the objectives and policies for their customary marine title area, which would be recognised and provided for by the relevant regional council in relation to resource management issues.

16.2 Kaitiakitanga of Te Awanui Legislative Timeline

1873 Port of Tauranga established by order of the Governor of New Zealand

1876 Tauranga County Council

In 1876 the Tauranga County Council was established, with authority to control ferries and to construct bridges, quays, wharves, and docks. The council immediately began to reshape the harbour to suit economic growth and development in the area. By the early 1880s, the Town and Victoria Wharves had been built, and the first of several major reclamations along The Strand had been made (Waitangi Tribunal Report, 2010).

1878 Harbours Act

The Harbours Act provided that only the Crown could make grants to the foreshore, and then only by Acts of Parliament. This provision, as incorporated in subsequent legislation, was regarded as the principal statutory foundation for Crown ownership of the foreshore until the passing of the Foreshore and Seabed Act 2004 (Waitangi Tribunal Report, 2010).

1882 The Tauranga Borough Council

The Tauranga Borough Council was established and was given jurisdiction over the town area down as far as the high water mark. This granted Tauranga settlers a significant degree of power and autonomy, and they immediately sought to extend their authority over the harbour as well (Waitangi Tribunal Report, 2010).

1912 Tauranga Harbour Act

The Tauranga Harbour Act established the Tauranga Harbour Board. The harbour as described in the Act comprised the Port of Tauranga, the Port and harbour of Katikati, the Kaituna River so far as it was navigable, the estuary of Waihi South and the respective entrances thereto. The Tauranga harbour district covered the Borough and the County of Tauranga. By the end of 1914, all wharves within the Tauranga Harbour were owned and controlled by the Tauranga Harbour Board (Port of Tauranga, 2011 pg 4).

1915 Tauranga Harbour Amendment and Foreshore Vesting Act

The Tauranga Harbour Amendment and Foreshore Vesting Act saw the vesting of "[a]ll the foreshore of the Tauranga Harbour' in the Tauranga Harbour Board. All the foreshore of the Tauranga Harbour commencing at the north head, Katikati entrance, and thence following the mainland to the headland at Mount Maunganui opposite the Beacon Rock at the Tauranga entrance to the harbour." Composition of the Tauranga Harbour Board showed no provision for representation of local iwi or hapū and Māori were not consulted over the transfer of ownership to the Tauranga Harbour Board (Waitangi Tribunal Report, 2010).

Water and Soil Conservation Act 1967

The classification scheme was incorporated into the Water and Soil Conservation Act 1967. This was the first truly comprehensive statute controlling water management, and aimed to

'make better provision for the conservation, allocation, use, and quality of natural water'. It remained the key statute for controlling water pollution until the Resource Management Act 1991.

1989 Local Government Reform

The Local Government Reform spelled the end of the Harbour Board. The Bay of Plenty Regional Council assumed control of the harbour waters and responsibility for safety, navigation and control of marine pollution. Ownership of the Tauranga Marina, Harbour Bridge, adjacent boat ramps, jetties and long term leased properties passed to the Tauranga District Council, with the Western Bay District Council assuming ownership of the marine recreational facilities in the rest of the harbour (Port of Tauranga, 2011).

Resource Management Act 1991

The RMA came into force on 1 October 1991 after four years of intense work. It replaced more than 20 major statutes and 50 other laws related to the environment (some dating from as far back as 1889), and was the largest law reform exercise in New Zealand's history. The RMA set out to create a more streamlined, integrated and comprehensive approach to environmental management.

Māori provision in the RMA include:

Section 6. Matters of National Importance. In achieving the purpose of this act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall recognise and provide for the following matters of national importance:

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

(b) The protection of outstanding natural features and landscapes from inappropriate subdivision, use, and development:

(c) The protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna;

(d) The maintenance and enhancement of public access to and along the coastal marine area, lakes and rivers;

(e) The relationship of Māori and their culture and traditions with their ancestral lands, water, sites, wāhi tapu, and other taonga.

Section 7. Other Matters. In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall have particular regard to:

(a) Kaitiakitanga;

(b) The efficient use and development of natural and physical resources;

(c) The maintenance and enhancement of amenity values;

(d) Intrinsic values of ecosystems;

(e) Recognition and protection of the heritage values of sites, buildings, places, or areas;

(f) Maintenance and enhancement of the quality of the environment
(g) The protection of the habitat of trout and salmon.

Section 8. The Treaty Principles. In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall take into account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi).

16.3 Customary Fisheries Legislative Timeline

Pre 1840

Customary Management rights to fisheries held by hapu and iwi, whom controlled sustainable take of fisheries within their customary areas.

Treaty of Waitangi 1840

The English text of the Treaty of Waitangi states that Māori leaders and people, collectively and individually, were confirmed and guaranteed 'exclusive and undisturbed possession of their lands and estates, forests, fisheries and other properties'. In the Māori text, Māori were guaranteed 'te tino rangatiratanga' or the unqualified exercise of their chieftainship over their lands, villages, and all their property and treasures.

The Fisheries Act 1983

In 1983 the Fisheries Act was passed, under which commercial fishers required permits. To obtain a permit they needed to earn at least $10,000 a year from fishing, or fishing had to make up 80% of their income. Many Māori who fished were therefore not eligible for permits.

The Quota Management System 1986

In 1986, the 1983 Fisheries Act was amended to provide for a new way of managing commercial fisheries. Through this Act the Quota Management System (QMS) was established. Under the QMS, first allocations of quota were based on how much commercial fishers had historically caught and so quota was given to commercial fishers who had existing fishing permits. Due to the regulations enacted by the 1983 Fisheries Act, many Māori were not issued commercial fishing perrmits, so they missed out when quota was first allocated.

The Minister of Fisheries is required to establish sustainable catch levels for fisheries managed for harvest. For each stock a Total Allowable Catch (TAC). In most cases, the TAC is determined by scientific research, which set reference to maintaining the biomass at or above a level that can produce maximum sustainable yield. Māori have limited to no input into determining TAC limit.

Māori Fisheries Act 1989

People started to realise that the new Quota Management System (QMS) didn't look after the Māori fishing rights that the Treaty of Waitangi had promised to protect. In response the Government brought back 10% of the fishing quota it had allocated to commercial fishing under the quota management system and gave them to the Treaty of Waitangi Fisheries Commission, to hold on behalf of the Māori until an agreement was reached as to how it would be allocated to iwi and hapu.

Treaty of Waitangi (Fisheries Claims) Settlement Act 1992

In 1992, the opportunity to finalise all commercial fisheries claims under the Treaty was realised when Nelson-based Sealord Products was put up for sale. Māori were provided with $150 million, a part of which was used to buy a half share of Sealord. Māori also received a guarantee for 20% of future quota of new species. The settlement has completed the Crown's obligations arising from the Treaty of Waitangi, and all claims by Māori to commercial fishing rights under the Treaty are settled.

Fisheries Act 1996

Following the commercial settlement in 1992 the government looked toward addressing the non-commercial customary fishing interests. The fisheries Act 1996 was legislated which contains provisions allowing for establishment of Taiapure areas. A Taiapure is a local management tool established in an area that has customarily been of special significance to an iwi or hapū as a source of food, or for spiritual or cultural reasons (s 174 of the Fisheries Act). Taiapure can be established over any area of estuarine or coastal waters, to make better provisions for rangatiratanga and for the rights secured under Article Two of the Treaty. All fishing (including commercial fishing) can continue in a taiapure and this tool offers a way for tāngata whenua to become involved in the management of both commercial and non-commercial fishing in their area. Taiāpure provides for a taiāpure management committee to be established, this committee can provide advice and recommendations to the Minister of Fisheries.

Section 186A & B of the Fisheries Act sets out provisions in which tangata whenua can establish temporary closures in response to localised depletion of fisheries resources.

Today rāhui can be emplaced following a death, or as 'temporary closures' through Section 186A (North Island) and Section 186B (South Island) of the Fisheries Act 1996. These closures are also known as rahui and are enacted by the Minister of Fisheries, who can temporarily close an area to fishing or restrict a method of fishing, in order to provide for the use and management practices of tangata whenua. This legislation aims to alleviate the depletion of fisheries resources, which may affect the ability of tangata whenua to collect fish for customary purposes.

A closure can only be emplace for two years, if the resources has not re-established the closure can be reinstated for another two years. The closure can only be instated for a total of six years.

A local example of a contemporary rahui, is the Mount Maunganui. After concerns from tangata whenua about green-lipped mussels becoming scarce, the beds between Moturiki and Motuotau Islands were temporarily closed for two years in July 2002. This initial closer was extended three times until 2009 when it was removed and reopened for harvest.

Kaimoana fisheries regulations 1998

The 1998 Kaimoana Fisheries Regulations further strengthened the rights of iwi and hapu to manage their non-commercial fishing interests. Three major customary mechanisms were established under these regulations:

Tangata Kaitiaki:

Tangata Kaitiaki/Tiaki are individuals or groups who can authorise customary fishing within their rohe moana, in accordance with tikanga Māori. Tangata Whenua appoint and mandate Tangata Kaitiaki for their rohe and appointments are confirmed by the Minister of Fisheries.

Iwi Planning Documents (IPD):

Tangata Kaitiaki/Tiaki may decide to develop management plans for the fisheries within their rohe, for approval by the Tangata Whenua. Under the Fisheries Act, Iwi fisheries management plans can be used to support and promote sustainability of fisheries within the rohe moana.

Mataitai Reserves:

Mataitai reserves are areas where Tangata Whenua manage all non-commercial fishing by making bylaws. Bylaws must apply equally to all individuals. Reserves can only be applied for over traditional fishing grounds and must be areas of special significance to the Tangata Whenua. Generally there is no commercial fishing within the reserves

Māori Fisheries Act 2004

It was the job of the former Fisheries Commission to develop a method by which the fisheries assets, grated by the Treaty of Waitangi (Fisheries Claims) Settlement Act 1992, were to be equitably shared among all iwi in New Zealand. This process eventually took 12 years and finally concluded in 2004 with the passing of the Māori Fisheries Act 2004. This Act established Aotearoa Fisheries Limited to manage the commercial arm of certain settlement assets and Te Ohu Kaimoana to act as a governance body for those Māori interests in the marine environment.

Māori Aquaculture Settlement Act 2004

By the late 1990's, it became clear that the legislation for planning and approving marine farms could not cope with the growth of New Zealand's aquaculture industry. In 1998, the government began reviewing the law and in 2001, they proposed a new regime which would more clearly restrict the places where aquaculture can be conducted. This meant that aquaculture would only be able to take place within Aquaculture Management Areas (AMAs) defined by regional councils under the Resource Management Act 1991.

The Māori Commercial Aquaculture Claims Settlement Act 2004 provides iwi with 20% of all new aquaculture space created from 1 January 2005. The settlement also provides iwi with the equivalent of 20% of existing aquaculture space (called "pre-commencement space") created between 21 September 1992 and 31 December 2004.

The settlement provides that all settlement assets are transferred to The Takutai Trust, whos key role is to administrate and protect aquaculture interests of Māori and is responsible for receiving aquaculture settlement assets from the Crown or regional councils, and transfers these assets to Iwi Aquaculture Organisations (IAO).