

Kaituna Pātaka Kai Project

Collated research

A collaboration led by tangata whenua representatives
of Te Maru o Kaituna River Authority
29 March 2022

Fishing for whitebait on the Kaituna River (1931)





Document History

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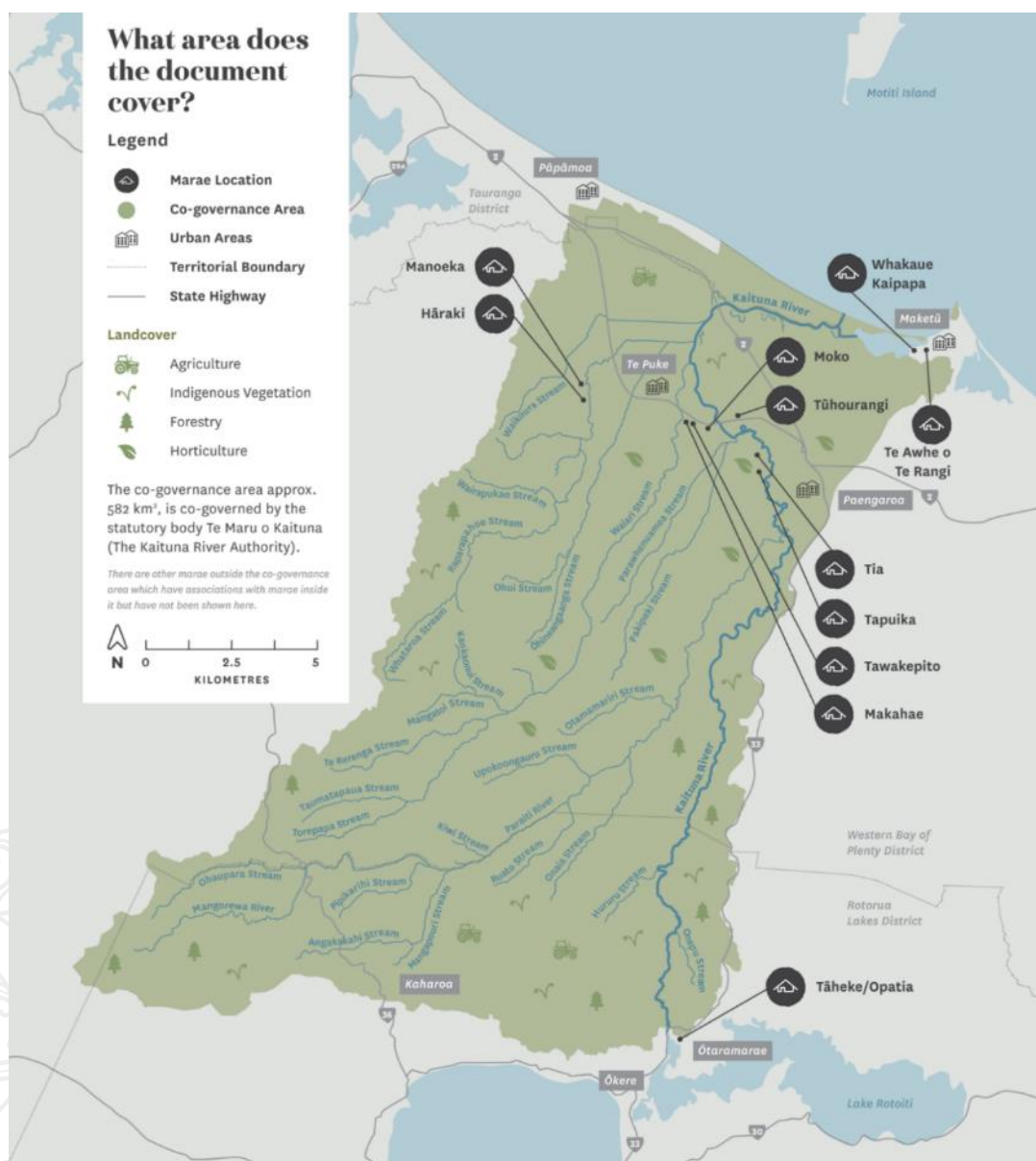
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Document purpose

The purpose of this document is to collate relevant fisheries data and research relating to the Pataka Kai project and Kaituna River catchment – a literature review/desktop study. Data and research considered in scope of this project relate to freshwater fisheries monitoring data; historical accounts from mana whenua; as well as freshwater fishery plans and projects.

This document will help inform the Pataka Kai Project in terms of understanding where kaiawa / mahinga kai used to be and how they were gathered; and, know what kaiawa / mahinga kai monitoring has been done within the catchment.

This document provides a snapshot, based on information collected up to March 2022 and does not provide an analysis of the collated data.



Te Maru o Kaituna Documents

Te Maru o Kaituna River Authority (2018). Kaituna, he taonga tuku iho | Kaituna River Document

General statement about fish species and rivers:

- Trout fisheries found in Kaituna River, Mangorewa River, Waiari Stream
- Indigenous fish found in Kaituna River, Mangorewa River, Pakipaki Stream, Parawhenuamea Stream, Kopuroa/Kopuaroa Canal, Ohinengaanga Stream, Raparapahoe Stream, Wairapukao Stream and Waiari Stream.

Council Documents

Bay of Plenty Regional Council (2016). Kaituna-Maketū and Pongakawa-Waitahanui Water Management Area: Current State and Gap Analysis.

Collation of all Council monitoring and research relating the Kaituna / Pongakawa / Waitahanui Catchments. This includes geology, hydrology, groundwater availability, freshwater quality, periphyton and cyanobacteria as well as stream invertebrates and fish communities.

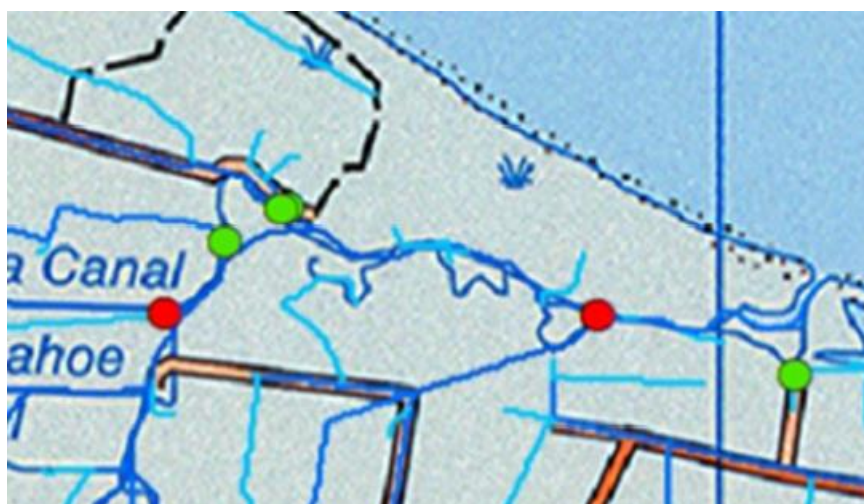
Excerpts from report, of relevance to the Kaituna Catchment, provided below.

- Stream invertebrates – 18 sites regularly monitored. Spatial coverage skewed – sites are predominantly along the Kaituna main stem (as opposed to the hill-fed and lowland-fed streams). Few smaller streams have been monitored.
- Fish communities:
 - BOPRC does not regularly monitor fish communities as part of their annual SoE work.
 - Fish surveys normally conducted by DoC, NIWA and F&G.
 - NZ Freshwater Fish Database – 191 sites. Most samples (90) collected post 2000. Most commonly collected fish were longfin and shortfin eels (42% of sites), followed by common bully, inanga, smelt and redfin bully. Introduced fish such as mosquito fish and rainbow trout were found at 14% of the sites sampled. The average distance from a sampling site to the coast in the Kaituna WMA was 19 km, with the closest site being only 300 m to the sea, and the furthest being 54 km inland. Most samples (73) were collected between 10 and 20 km inland.
 - Like invertebrate data, more surveys needed from hill-fed streams draining indigenous forest, as well as from small streams. The challenge of monitoring fish communities is that their abundance is highly temporally variable, especially for many of the migratory native fish.
 - **There is a general consensus amongst New Zealand fisheries scientists that native New Zealand fish do not come back to their natal streams, so the populations found in a particular stream cannot be related back to the spawning success from that stream. This means that there are often large temporal fluctuations in fish density within a site over time.**

Bay of Plenty Regional Council (2018). Ecological and water quality conditions of drains and land drainage canals in the Rangitaiki and Kaituna Plains

Relates to a survey of drains and land drainage canals in the Kaituna and Rangitāiki Plains to help fill knowledge gaps about these relatively unstudied ecosystems. Known constraint for eels - pumps and pumping stations are common throughout the Kaituna.

Excerpts from report provided below.



Location of pumps (green) and pump stations (red)

Fish communities were assessed by deploying fyke nets in selected drains, which were dominated by fine substrates that made electric fishing impossible.

13 Kaituna waterways / modified watercourses / drains were sampled. Data below is combined with the Rangitāiki catchment:

Common name	Scientific name	No of sites	% of sites
Shortfin eels	<i>Anguilla australis</i>	24	82.8
Inanga	<i>Galaxias maculatus</i>	18	62.1
Mosquito fish	<i>Gambusia affinis</i>	16	55.2
Common bully	<i>Gobiomorphus cotidianus</i>	13	44.8

Longfin eels	<i>Anguilla dieffenbachii</i>	12	41.4
Giant bully	<i>Gobiomorphus gobioides</i>	11	37.9
Gold fish	<i>Carassius auratus</i>	8	27.6
Redfin bully	<i>Gobiomorphus huttoni</i>	7	24.1
Smelt	<i>Retropinna retropinna</i>	7	24.1
Torrentfish	<i>Cheimarrichthys fosteri</i>	4	13.8
Giant kokopu	<i>Galaxias argenteus</i>	4	13.8
Yelloweye mullet	<i>Aldrichetta forsteri</i>	2	6.9
Rainbow trout	<i>Oncorhynchus mykiss</i>	2	6.9
Grey Mullet	<i>Mugil cephalus</i>	2	6.9
Banded kokopu	<i>Galaxias fasciatus</i>	1	3.4
Lamprey	<i>Geotria australis</i>	1	3.4
Crans bully	<i>Gobiomorphus basalis</i>	1	3.4
Cockabully	<i>Grahamina</i>	1	3.4

Species richness within the different waterways varied considerably, with the Waiari Stream and the Waikamahi Stream supporting the highest number of species (11 and 10 respectively). Seven sites only supported two species, one of which was shortfin eels.

Examination of the distribution of the most common fish showed that both shortfin eels and inanga were found at all sites throughout both the Kaituna and Rangitaiki Plains (Figure 33, Figure 34).

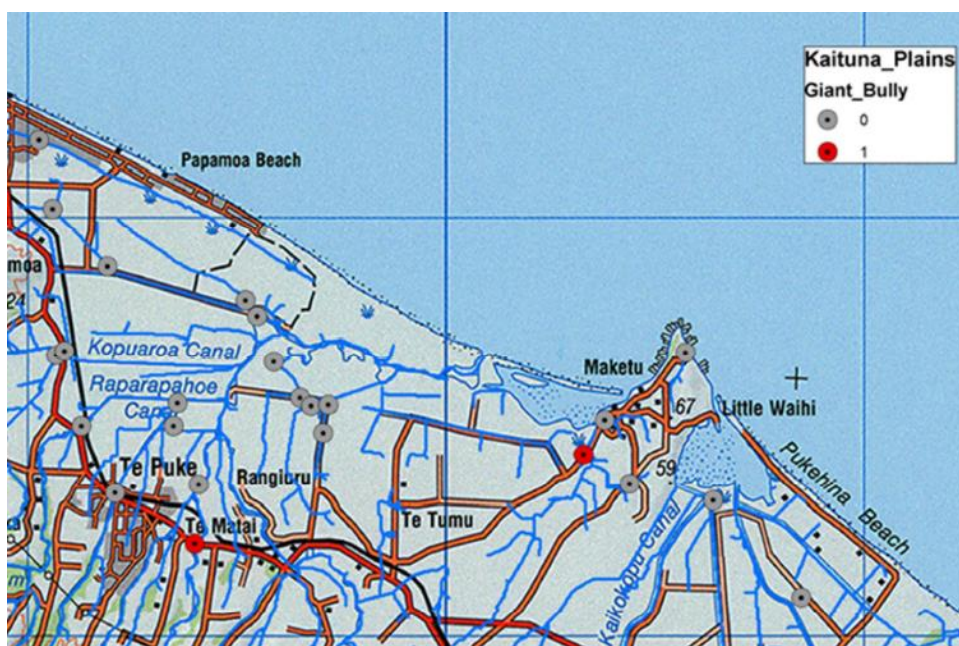




Gambusia was also widespread in both Plains, although it was absent from waterways draining Te Puke such as the Kopuaroa Canal, Raparapahoe Canal and the Ohineangaanga Stream (Figure 35).



Unlike common bully, which appeared at sites throughout both the Rangitaiki and Kaituna Plains (Figure 36), giant bullies were found at only two sites in the Kaituna Plains but were widespread throughout the Rangitaiki Plains (Figure 37).



Some of the drains sampled supported large quantities of shortfin eels, despite the low habitat and water quality conditions, and despite the presence of pump stations below some of the drain sites.

The finding that smelt display such a strong avoidance behaviour to both low DO and elevated ammonia concentrations lead Richardson et al (2001) to suggest that smelt could be a good indicator organism to assess ecological health of lowland waterways. The fact that relatively few drain sites in the Kaituna and Rangitāiki Plains support smelt may indeed suggest that the ecological health of these waterways is relatively poor.

Of interest was the finding of many fish in drains above pump stations or floodgates. This shows that these structures are not complete barriers to upstream movement. What proportion of the total migrating population can pass these structures is, however, unknown.

Appendix 1 of the report includes a list of invertebrate sample sites, including location and findings from each site.

Resource consent monitoring

Aecom (2018)¹. Water Quality, Stream and Terrestrial Ecology Assessment Te Puke Wastewater Treatment Plant Resource Consent Renewal

Prepared for the Western Bay District Council consent renewal for the Te Puke Wastewater Plan. No freshwater fishery monitoring carried out. Ecological assessments limited to riparian habitat and macroinvertebrates.

4Sight Consulting (2017)². Waiari Water Treatment Plant: Waiari Stream Baseline Monitoring Report

Prepared for the Tauranga City Council to satisfy a condition of the resource consent for the Waiari Water Treatment Plan. This included fish surveys using single-pass electric-fishing and baited G-minnow traps at all sites.

"A total of seven native fish species were recorded within the Waiari Stream during the 2017 survey (Table 3). At Sites 1 and 2 five native fish species were observed including; longfin eel (*Anguilla dieffenbachii*), inanga (*Galaxias maculatus*), giant kokopu (*G. argenteus*), redfin bully (*Gobiomorphus huttoni*) and common smelt (*Retropinna retropinna*). A few very small, juvenile bullies (species unidentified) were also recorded, and were likely to be redfin bully.

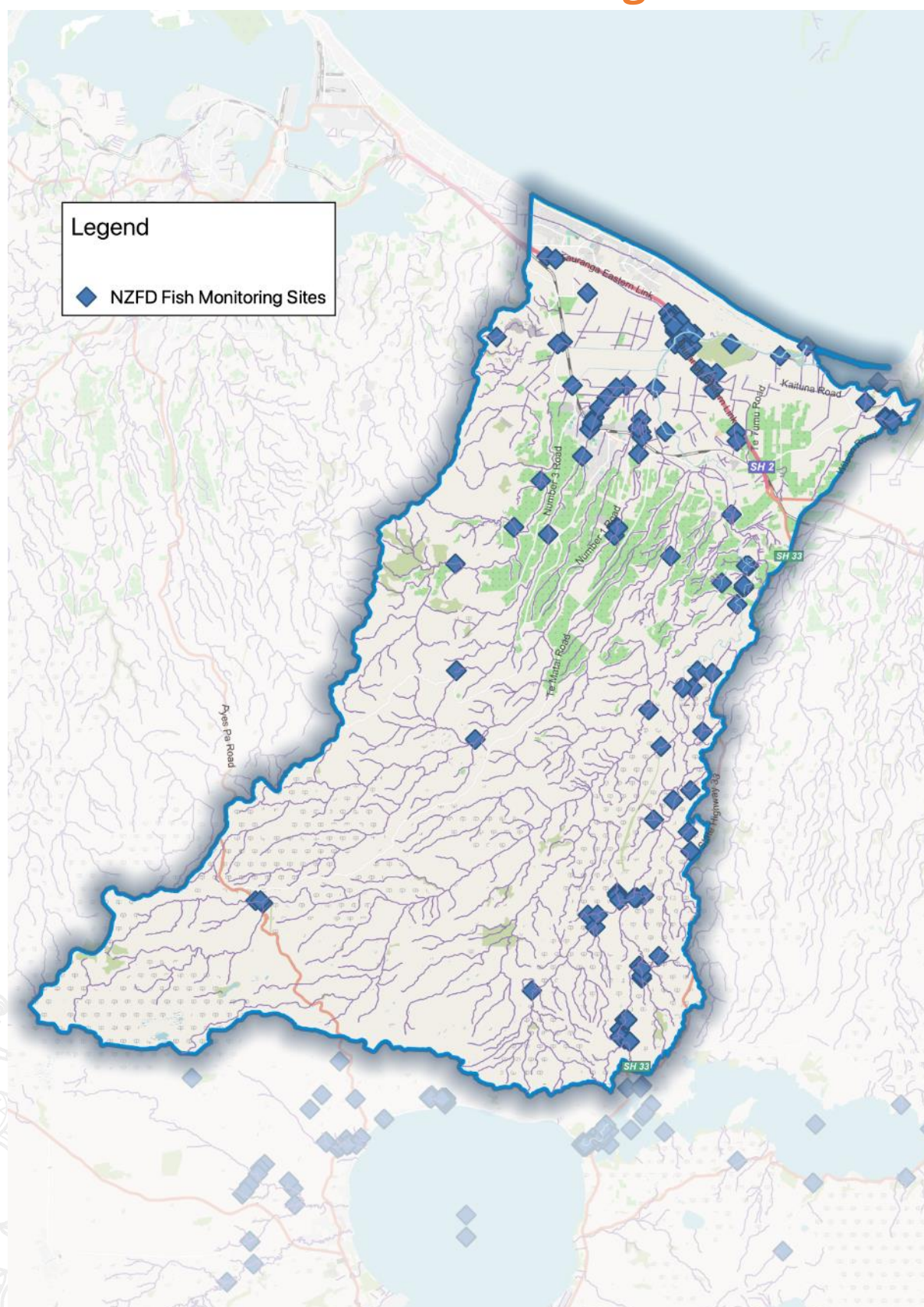
Longfin eel, inanga, redfin bully and common bully (*Gobiomorphus cotidianus*) were also recorded at Sites 3 and 4, upstream and downstream of the WWTP respectively. Large numbers of inanga were also observed schooling along the edges of the macrophyte beds at both sites. Two very small elver or juvenile eels (*Anguilla* sp.), were captured, while a mullet (likely a grey mullet, *Mugil cephalus*) was observed darting away from the area at Site 4."

¹

<https://www.westernbay.govt.nz/repository/libraries/id:25p4fe6mo17q9stw0v5w/hierarchy/council/projects/documents/2019%20Te%20Puke%20WWTP%20Consent%20Renewals%20-%20Water%20Quality%20Assessment%20Final.pdf>

² <https://cdn.boprc.govt.nz/media/794433/waiari-stream-baseline-report-final.pdf>

NZ Freshwater Fish Monitoring Sites



Iwi Documents

Tapuika Environmental Management Plan 2014

Values (taken from statements of association from Tapuika Statutory Acknowledgement Areas):

Waterways and Areas	Values					Original Name
	Wahi Mahinga Kai	Settlement (permanent / seasonal)	Wahi Tapu	Ara Tawhito (Trails)	Cultural Resources	
Kaituna River	✓	✓	✓	✓	✓	Te Awanui o Tapuika
Kaokaonui Stream	✓	✓	✓			
Kiwi Stream	✓	✓	✓	✓		Piparika Stream
Maketū Conservation Area	✓		✓		✓	Kawa repo
Maketū Wildlife Management Reserve	✓	✓				
Mangatoi Stream	✓	✓	✓			
Mangorewa River	✓	✓	✓	✓		Paraiti (from the confluence of the Mangorewa River and Ohaupara Stream down to the Kaituna River)
Ohaupara Stream	✓	✓	✓			
Ōhineangaanga Stream	✓	✓	✓			
Onaia Stream			✓			
Ōpoutihi	✓	✓			✓	
Pokopoko Stream	✓	✓	✓	✓	✓	Kaikokopu Stream (where it flows towards the Waihi Estuary)
Raparapahoe Stream	✓	✓	✓			
Ruato Stream	✓	✓	✓		✓	
Te Rerenga Stream	✓	✓	✓	✓		Te Rerenga Wairua o Kahukura & Ōtuturu Stream (from the Whakauma Block)
Waiari Stream	✓	✓	✓	✓	✓	Waiariari
Waihi Estuary Wildlife Management Reserve	✓	✓	✓		✓	
Whataroa Stream	✓	✓	✓			

Tapuika Iwi Monitoring Plan for the Kaituna River (2017)

This is a joint freshwater monitoring plan prepared by Tapuika Iwi Authority, Environmental Research Institute and University of Waikato. It “summarises the existing monitoring programme and outlines future monitoring aspirations for this freshwater resource”. It was prepared to “provide the necessary information required to engage with the BOPRC to ensure that the freshwater aspirations of Tapuika Iwi Authority are met”.

Excerpts provided below

Current Monitoring on the Kaituna River

The Bay of Plenty Regional Council hold historical data dating back to 1992. Monthly samples are taken from five different sites (shown in Figure 2). At each of these sites the BOPRC monitor for the following;

Dissolved oxygen	Flow	Specific conductivity
Temperature	Turbidity	Calcium
Suspended solids	Magnesium	Dissolved Reactive Phosphorus
Biochemical oxygen demand	PH	Ammonium
Potassium	Total Kieldahl Nitrogen	Enterococcus
Chloride	Sulphate	Total Phosphorus
E. coli	Faecal Coliforms	

State of the Kaituna River

Over the past 25 years the Kaituna River has been subjected to major pressures including increasing land use intensification and ongoing industrial and municipal effluent discharges. Hydro-electric schemes have also been proposed for the river. These changes have caused adverse effects on water quality, by increasing the concentration of major nutrients such as nitrogen and phosphorus, as well as indicator bacteria (E. coli, Enterococcus and faecal coliforms). As a consequence of this shellfish populations have been subjected to contamination within the Maketu estuary.

Tapuika Core Cultural Values

Underlying the management and monitoring of these mahinga kai and Waahi Tapu sites, are the three cultural core values of Wai, Whenua, and Tangata. TIA see these cultural values as representing the health of the water (Wai), the health of the land (Whenua) and the health of the people (Tangata). Table 4 outlines the components of these values.

Wai (Health of the water)	Whenua (Health of the land)	Tangata (Health of the people)
Flowing water	Health of the surrounding banks	Knowledge development
Clean water	Health of the wetlands	Knowledge retention
	Access to sites	Harvesting practices
		Access to sites

Also reference to kaupapa Māori assessment tool – Wai Ora Wai Māori (Landcare Research, 2017).

Identified sites for monitoring

- Te Mimi o Tapuika Taheke C
- Okere
- Pakotore Tapuika Rangitihi Wahi Tapu Reserve
- Maungarangi Wahi Tapu Reserve
- Mangorewa
- Pakipaki
- Te Matai, Ngati Kuri
- Te Paamu, Ngati Marukukere
- Above AFFCO

- Paengaroa
- Rangiuru
- Parawhenuamea
- Waitangi, Ngati Moko
- Waiari
- Te Kopua Cultural passive reserve area
- Te Karaka Cultural passive reserve area
- Te Tumu
- Wairakei



Conclusion

The Tapuika Freshwater Monitoring Plan highlights the specific sites of significance for Tapuika along the Kaituna river, as well as the Tapuika monitoring aspirations for these sites. It is important to note that Tapuika have requested both scientific and mātauranga Māori forms of monitoring. Both forms of monitoring will help support the underlying values that Tapuika associate with these sites – that is Wai, Whenua and Tangata. It is imperative to their sense of kaitiakitanga that Tapuika are actively involved in the

management and monitoring of the Kaituna river. This is emphasised by the desire to utilise the Kaupapa Māori assessment tool which promotes the notion of data collection and analysis being conducted by citizens and kaitiaki. Indeed, the Tapuika FMP will provide the necessary information required to engage with the BOPRC to ensure that the freshwater aspirations of Tapuika Iwi Authority are met.

Tapuika Mana Whenua Report 2005

Historical information to support the Tapuika Treaty Claim. Includes information about the Takapū (including mahinga kai), relationships with neighbouring Iwi, involvement in Te Kaokaoroa/Pukehinahina/Te Ranga and 19th century land alienation. *No excerpts are included - this report will be provided directly to the Project team.*

Statements of Association from Tapuika Statutory Acknowledgement Areas

Excerpts below

General statements

The tūpuna (ancestors) had intimate knowledge of the land, forests and waters within the takapū. Many areas including Papahīkahawai were occupied on a rotational basis. Tapuika constantly moved around the takapū occupying various pā (wā kainga) for specific purposes such as harvesting or fishing. These movements were dictated by the weather patterns and tribal knowledge of the movements of stars, moon, sun and the wind.

The rivers, streams and wetlands within the Takapū o Tapuika were an important source of food, building materials, clothing and dyes. However, the relationship between Tapuika and their waterways was not solely confined to food gathering and other uses. It also incorporated an intrinsic connection with the mauri of the waterways and the tribal kaitiaki or tāniwha whose rangatiratanga over the streams and rivers provides evidence of Tapuika's long standing association with the waterways within the takapū. The taniwha associated with this waterway is Tamitami and Kahukura.

Maketū Wildlife Management Reserve

Papahīkahawai was a prized fishing ground within the takapū. The first appearance of Rehua (Antares) in the night sky and the early flowering of the pohutukawa trees along the coast heralded the arrival of raumati (summer). Tapuika would move to their coastal pā at Papahīkahawai to fish and gather shellfish all of which would be dried and preserved in preparation for the coming of takurua (winter).

During the kahawai runs numerous kahawai would enter the channel on the turn of the tide. The traditional method of catching kahawai at Papahīkahawai relied on holding pens constructed from kahikatea and harakeke, which were placed in the water at the narrow part of the inlet. Large kūpenga kaharoa (drag nets) also made of harakeke, mātāhē and hue would be dragged along the bed of the inlet. The kahawai would be surrounded by a wall of netting and driven into the holding pens to be caught.

This fishing technique demonstrates traditional skills that further reinforce the capability of the tūpuna to exploit the rich natural resources within the takapū. This knowledge of the natural environment was balanced with respect indicated by the seasonal cyclical gathering of resources and shaped the relationship between Tapuika and Papahīkahawai.

Part Taumata Scenic Reserve (Ngātokaturua)

Amawake was the name of the mahinga kai plantation of Ngātokaturua. Ngātokaturua was the pā kainga of the Tapuika hapū Ngāti Totokau, and was located above the Te Rerenga Stream on the Taumata lands.

This area was a favoured place for the customary harvest of tuna heke when the adult tuna would begin their migration to the sea during Ngāhuru (autumn). In preparation for the harvesting tuna hinaki (eel traps) would be constructed from the roots of the kiekie and the vines of the rata. The hinaki would be baited with huhu grubs and toke (worms) and placed in the stream at night. In the early morning the hinaki would be removed from the stream and eels the hung on rails of mānuka to bleed before being gutted and salted and then left to dry. Pāwhara tuna (dried eels) were a delicacy that could be stored and eaten at a later time.

Te Rerenga Stream

The full name given by Tapuika to Te Rerenga Stream is Te Rerenga Wairua o Kahukura. Kahukura was the great grand-daughter of Tauana the eponymous ancestor of the Tapuika hapū Ngāti Tauana who was killed by a party travelling through the area. This led to her brothers seeking support from their Te Arawa whanaunga to obtain utu (revenge) for her death.

The Rerenga Stream commences from an underground waterway within the vicinity of Ngāwaro. It flows east to Te Manga o Ngakohua in the Taumata Reserve where a wāhi tapū site was marked by a tipua (giant) solitary Karaka tree. This tipua marked the western most boundary of the tūpuna Ngakohua, the matāmua (eldest son) of the rangatira Ruangutu who held extensive lands throughout the Takapū o Tapuika during the 15th Century. Continuing in a north east direction above the Te Rerenga stream is the mahinga kai plantation of Ngāti Tauana known as Te Hunua. This area marked the boundary between Ngāti Tauana and a neighbouring hapū.

Continuing on along the Te Rerenga Stream is the pā kainga of the Tapuika hapū Ngāti Totokau called Ngatokaturua located above the stream within close proximity of the Whataroa Conservation area. This area was a favoured place for the customary harvest of tuna heke when the adult tuna would begin their migration to the sea during Ngahuru (autumn). In preparation for the harvesting of the tuna hinaki (eel traps) would be constructed from the roots of the kiekie and the vines of the rata. The hinaki would be baited with huhu grubs and toke (worms) and placed in the stream at night. In the early morning the hinaki would be removed from the stream and the eels hung on rails of manuka to bleed before being gutted and salted and then left to dry. Pāwhara tuna dried eels were a delicacy that could be stored and eaten at a later time. Amawake was the name of the mahinga kai plantation of Ngātokaturua.

Continuing its journey east the Te Rerenga Stream flows past the location of the Tapuika pā Kaiakatia which was occupied by Ngāti Totokau in the Whataroa area. Food resources from the stream here were plentiful and included tuna, koura and kowhitiwhiti (native watercress) supplemented with kumara and aruhe.

The Te Rerenga Stream continues past the northern end of Te Matai Forest. Located below the Te Rerenga Stream in a north west direction is the Pukehunu pā of the Ngāti Tuheke rangatira Paora Paruhi. Pukehunu pā was a renowned taunga ika or eeling place with many pā tuna (eeling weirs). The mahinga kai beside the stream was specific to those that took part in the trapping of the tuna.

A short distance from Pukehunu is Te Waikōkō Tamateranini, an important ancestor of Ngāti Tauana, who named this portion of the stream after the sound of the water as it raced over the rocks there. As the Te Rerenga Stream continues to flow through the Whakauma Block it becomes known to Tapuika as the Ōturuturu Stream.

There are two significant tohu on the Ōturuturu (Te Rerenga) Stream here. Te Waitakahi o Tamateranini (the trampling of water) marks the ritual performed by Tamateranini to confirm his occupation of the area as a taonga māpuna (prized possession). Te Waitohi o Tamateranini (the sprinkling of water) is the customary ritual used by Tamateranini to clear the land of negative influences with karakia and water.

Continuing north above the Ōturuturu (Te Rerenga) Stream is Kihikihi, a pā maioro or fortified pā of the Ngāti Totokau (a Tapuika hapu) rangatira Te Matahi. The name of the whare he resided in was Te Arorangi. The mahinga kai was also known as Kihikihi but was situated a short distance from the pā beside the stream where the terrain was more fertile.

The Ōturuturu (Te Rerenga) Stream continues north until it meets the Mangatoi stream where it becomes known as the Waiari.

Kiwi Stream

The Kiwi Stream commences at the western portion of the Pahiko Block east of Te Matai Rd. The Kiwi Stream is known to Tapuika as the Piparika stream.

The Kiwi Stream was a pātaka kai (food storehouse) of kowhitiwhiti, tuna, inanga, koura, and other freshwater fish for the Tapuika hapu of Ngāti Totokau who lived nearby at Onaumoko.

Continuing downstream at the confluence of the Kiwi Stream as it enters the Mangorewa River is the pā maioro of Whaititiri located on the ridgeline. The surrounding steep terrain made this pā easier to defend against possible attacks from others as the people from the pa could see anyone coming up the Mangorewa valley and the pā had only one entrance to guard. A well known track from Whaititiri still in evidence today, was used by the inhabitants of Whaititiri pā to collect water from the Mangorewa River.

Ruato Stream

The tāniwha associated with this waterway is Parerora.

The Ruato Stream though small is a stream of significance to Tapuika. It commences in the Mangorewa – Kaharoa Block and flows through the north eastern portion of the Pāhiko lands catchment area. The Ruato Stream has a stony stream bed like many of the streams within the upper Mangorewa catchment. The Ruato was one of the streams that the tuna kūwharuwharu (long finned eel) would migrate upstream to as young elvers or tuna kuao. On reaching the Ruato they would feed on koura, insect larvae and worms gradually gaining the dark coloration and became known as tuna kukahika.

The tuna kūwharuwharu would reach maturity after 15 – 20 years when it would stop feeding in preparation to migrate downstream and out to sea to spawn. It was during this stage that the tuna became known as tuna heke.

The Ruato and Onaia Streams lie within the area known as Te Waonui o Tapuika (the great forest of Tapuika). It is rich in resources used for medicinal purposes, food gathering and making of tools. Opanaki is a major māra kai plantation of Ngāti Pāhiko, an historical hapū of Tapuika, on the hillside above the Ruatō stream approximately 4kms downstream. At the confluence of the Ruato Stream and the Mangorewa River is Te Pehu pā made up of limestone caves which were used as a defensive system. Te Pehu is intrinsically linked to Tapuika.

Whataroa Stream

The tāniwhā associated with this waterway is Omarutahatonga.

The Whataroa Stream begins in the valley between Whataroa Rd and Te Matai Rd and is approximately 6.5km long. It is fed by the Taumatapaua and Torepapa tributaries and flows through steep ravines, valleys and gorges on its path eastwards to the Mangatoī stream. On the western boundary of the Pahiko Block and at the junction of the Torepapa and Taumatapaua Streams was Onaumoko, one of the largest settlements of Tapuika spreading inland over an extensive area.

The pā maioro (fortified pā) was situated on the top of a valley at the northern end of the settlement and was strategically placed on banks high above a wai hirere (waterfall) so that Ngāti Totokau could retreat there in times of attack. The location of the pā maioro made it difficult for other iwi to stage a surprise attack as strangers could be seen approaching from some distance and the putaanga or sentry post at the gateway to the pā was always manned. In addition access to the pā was barred by its environs comprised of rapidly flowing water, rocks and a steep incline. Access to water was important during these times however Ngāti Totokau knowledge of their environment was such that they knew the tracks and places on the stream where they could safely take water without being detected. During the battle of Te Rahui, a hapū of Tapuika, Ngāti Totokau, living there retreated into the pā Maioro as a precaution against attack spreading inland up the Waiari River.

Following the Whataroa in a north east direction it enters the Ōturuturu (Te Rerenga) Stream. In close proximity is Waiwiri pā located on the banks of the confluence of the Te Rerenga and Mangatoī streams where it becomes known as the Waiari.

Ohaupara Stream

The Ohaupara Stream marks the boundary between the Mangorewa – Kaharoa and Taumata lands. In ancient times the Ohaupara Stream was renowned for the number and variety of birdlife such as kereru, tui and kiwi whose feeding area was in close proximity to the stream. It was a favoured patunga manu (bird hunting) area particularly for kereru with snaring rights fiercely contested between various hapū and iwi living nearby.

Taherekahakaha was a nohonga, patunga kereru (kereru hunting) area beside the Ohaupara Stream occupied during the kereru snaring season in autumn when the kereru were fat from feasting on the berries of the miro, rimu, maire, and matai trees which once grew

profusely around the Ohaupara Stream. Tapuika knew that after eating on the berries the Kereru would become thirsty and head for the stream. The men would go out at dawn and set the waka kereru (kereru snares) filling it with water from the stream. The kereru would come down to the stream and drink the water in the waka kereru placing their head through the flax noose which then tightened.

Te Taiki was the name of the Tapuika customary kiore runs which commenced at Taherekahakaha and continued to Opoutihi. There is a Tapuika taiaha movement that is based on the movements of the kiore during these kiore runs.

At the confluence of the Ohaupara Stream and the Mangorewa River is Te Taita. The name Te Taita refers both to the surrounding land and to the pakanga (battle) site there. According to Tapuika the Paraiti (Mangorewa) River commences at Te Taita and continues downstream until it empties into the Kaituna River at Kuratau.

Mangatoi Stream

The tāniwha associated with this waterway is Tamitami.

The Mangatoi Stream is a sacred stream to Tapuika because it is in the Mangatoi that the puna Mangakino is located. To Tapuika the Mangakino puna is a taonga tuku iho (treasure handed down through the generations) that provides the mauri (life force) for the Waiari and is commemorated in the Tapuika tribal waiata Tēnei Te Aroha and Tēra Tau Toru. In times past, when Tapuika wished to take eels from the Mangatoi Stream, a rāhui was placed on the stream so that other iwi would know that if they were caught breaking the rāhui they would be put to death.

A number of Tapuika pā are located on the banks of the Mangatoi Stream including Waitakahi pā. The full name of the pā is Te Waitakahi o Tamateranini. The pā was named after the customary ritual performed by Tamateranini (on the Te Rerenga stream) to demonstrate his occupation of the area.

At the confluence of the Mangatoi and Ōturuturu (Te Rerenga) Stream is Waiwiri pā and urupā of Totokau of Tapuika. Okaha is the name of the mahinga kai there.

Kaokaonui Stream

The tāniwha associated with this waterway is Tamitami.

It is known to Tapuika particularly as a pataka kai koura (storehouse for koura) the preserve of the Tapuika hapū Ngāti Totokau. It is said that the goddess of freshwater Parawhenuamea is the guardian of koura and that it is she that nourishes them.

Kaokaonui was a noho kainga on the raised bank of the koinga wai (river bend) used by Ngāti Totokau as a fishing base. Due to the small size of the koura the men would be away from the main Ngāti Totokau settlement of Waiwiri for days at a time, particularly if the koura was being gathered for a celebration or hakari (feast).

Tau koura is the traditional method most favoured by Tapuika for catching large numbers of koura. Bundles of aruhe (bracken) would be tied together and fastened with strips of harakeke (flax) or totara. A kohatu (stone) would be placed into the tau koura which would then be placed into the stream bed and left for the koura to colonize it. Tau koura were not

placed in the middle of the stream or in fast flowing water but near the banks where the koura were most known to habitate. Takahiparu was the name of the feast held at Kihikihi pā in which the customary catch of koura was gathered from the Kaokaonui.

The Kaokaonui Stream continues downstream until it finally flows into the Mangatoi stream below the site of the sacred puna Mangakino.

Onaia Stream

The tāniwha associated with this waterway is Parerora.

The Onaia Stream commences in the Mangorewa – Kaharoa block and stream flows through steep forest clad gorges until it reaches the south west portion of the Pāhiko Block, flowing past the Onaia Ecological area in a north west direction until it meets the Paraiti (Mangorewa) River.

Access down onto the stream was difficult due to the many steep gorges and ravines which were ideal places to hide koiwi in hard to find ana (burial caves). The area within close proximity to the Onaia Stream however was rich in bird life including kereru, tui, ruru and pipiwharau.

South of the confluence of the Onaia Stream and the Paraiti (Mangorewa) River is the island pā of Tapuika known as Te Weta. Access to the pā was deliberately hard to access except by way of a causeway flanked by steep gorges on either side. This was a defensive measure to prevent other iwi from attacking the pā. The pā was occupied by the Tapuika hapū Ngāti Pāhiko from which the block takes its name. The urupā of Pukeroa is in close proximity to the pā.

Ōhineangaanga Stream

The tāniwha associated with this waterway is Tunanui.

The Ōhineangaanga Stream commences in close proximity to Putaruru maunga. Further downstream were the nohonga Otaikaka and Ngapāri occupied by the Tapuika hapū Ngāti More.

According to Ngāti More the name Ōhineangaanga refers to the skull of a female child which was used as an omen when fishing and harvesting cultivations at the nohoanga sites mentioned.

As the Ōhineangaanga reaches the township of Te Puke it flows past the area known today as Donovan Park. This was a highly favoured taunga ika or fishing area for catching tuna and in particular kokopū. The Ōhineangaanga flows behind the town into the Raparapahoe canal where it discharges out into the Kaituna River.

Raparapahoe Stream

The tāniwha associated with this waterway is Wakairoa.

The Raparapahoe Stream commences from an underground fissure within the vicinity of Te Riu o Hua.

The upper reaches of the Raparapahoe Stream is known to Tapuika as having special 'feeder' eels. These were the eels that did not migrate out to sea. According to Tapuika tradition, their purpose was to gather food for the tāniwhā. When the tāniwhā wanted to eat they would nibble on the tails of the feeder eels. The feeder eels would then go to get the food for the tāniwhā. These eels could only be taken at certain times and only certain families knew the customary rituals and practice for taking them.

Following east to the confluence of the Wairapukao and Raparapahoe Streams was a favoured eeling place of Ngāti Totokau.

According to Tapuika tradition the name of the Raparapahoe Stream refers to the splitting open of the tuna for drying purposes 'me te whata raparapa tuna e iri mai ana te tuna'.

Continuing on downstream is the junction of the Waikoki and Raparapahoe Streams. Waikoki pā was located on the bank of the Raparapahoe Stream.

Coastal Marine Area Little Waihi to Wairakei

The ancient path of the Wairakei Stream flowed out to sea at Papamoa. Tapuika would gather tuatua (ocean pipi) at its outlet into the ocean.

From Te Paraoa to Te Tumu was the favourite fishing ground for Tapuika. A great variety of fish was caught from shore with an aho (fishing line). Kahawai was fished throughout the year. Juvenile kahu (kingfish) were fished during the summer months as they chased their prey in the shallow waters a short distance from the beach while tamure (snapper) were caught inshore from September to December. Kumukumu (gurnard) was favoured for its tastiness and was caught during the spring.

However the aua (yellow eyed mullet) was caught with kaharoa (large seine nets) made by Tapuika living inland. The base of the net was weighted down with mātē (sinkers) with hue (gourds) used as pōito or floats. The ends of the net were attached to a rākau (stick) with each end being dragged along the bottom of the sand trapping the fish as the ends of the nets came together. This method of netting fish could be also undertaken by using two waka. When sufficient fish were collected they would be divided up into individual piles for each family.

A short distance south of Papahikahawai at the former mouth of the Kaituna River is Koaretaia the burial cave said to contain the bones of Tapuika, his son Makahae and other rangatira of Tapuika.

Statements of Association from Waitaha Statutory Acknowledgement Areas

Excerpts below

Ohineangaanga Stream

Ohineangaanga Stream is one of the sacred waterways of Waitaha. Ohineangaanga had many pā on its river banks including Rotopoutaka, Takapou, Takarangi, Tapuae and Te Arataukawiti. This stream follows a course from where it flows into the Kaituna River at the area known the Atuaroa repo. Then you go up to Te Tarere, Te Atuaroa, Te Mania, Te

Tautara, Te Rii o Hakaraia (Tipene Kura), then from there up to Otaitaka Pā and then to Takarangi. Ohineangaanga then meets up with the Ohui Stream (Ngā Hineangaanga) which straddles Takarangi, to Te Ohui Pā. There were many Waitaha pā sites along the Ohineangaanga which were demolished by the development of the flood protection scheme in the 1970's.

Ohineangaanga was a nohoanga kāinga of Waitaha which contained mahinga kai and was situated next to the Ohineangaanga stream. It is also next to Te Mania, another nohoanga kāinga. Atuaroa was an area within the Te Puke block which contained the three nohoanga kāinga Atuaroa, Te Tarere and Te Mania. Tahipukahu was a nohoanga kāinga of Waitaha and it had mahinga kai. It was situated between Te Raparapa-ā-Hoe and Ohineangaanga streams.

Te Tapuaeroa (Te Tapuae) was one of the main pā used by Waitaha because it was centrally located on the banks of the Ohineangaanga Stream. The Ohineangaanga Stream linked Te Tapuae with many pā in the area. It was also a pā of Hakaraia and contained mahinga kai. The Tapuae Track leads to Te Puke crossing from Ohineangaanga Stream to the Waiari Stream and enabled Waitaha to use both the streams and the defensive structures of ridges and gullies on the land between the streams, to provide for strategic withdrawal in times of war.

Maungaruahine, Ohui and Takarangi are significant pā for Waitaha. They were used as pātaka kai, for transport, for times of celebration and as an important place of safety for women and children in times of war.

Part of the Kaituna River

This river is described as “he pātaka kai” which refers to the storage of kai. The Kaituna was significant as it was a breeding ground for the eels coming from the lakes, streams and rivers on their migration to the sea. It was also the breeding area for mullet and other salt water fish species. Fish and eels were so abundant that they could be seen covering the pipi beds at these times. The Kaituna is also well known as a source of whitebait and, until recently, there was always a plentiful supply.

The waters of the Kaituna have provided food, important sustenance for the people of Waitaha, for many generations. There was an abundance of freshwater fish and eel, rongoa, edible plants and other plants such as flax which Waitaha used for domestic and ceremonial purposes. There were many settlements along the river where Waitaha traditionally lived, cultivated and based them to gather fish, eel and other kai. In later years, Waitaha also looked after livestock along with their cultivation areas. The minerals found in the rich soils of the wetland areas were highly beneficial for livestock and gardens.

Flax and other plants treasured by Waitaha also grew in abundance. With European occupation, much of the flax was harvested and milled near where it grew. It was during this period that Waitaha learnt the economic value of the wetlands. Today most of the wetland areas around our rivers are drained and much of the natural habitat has now disappeared.

Paroa Pā was the pā of Hinepiri, the eldest sister of Te Iwikoroke. Hinepiri and Te Puku o Hākoma chose the leadership of their elder brother Te Iwikoroke, while the others came

under Kumaramaoa. Te Kopua and Te Karaka were also pā located in the same area and are pā which Waitaha have always associated with the Kaituna.

At the confluence of the Kaituna and the Waiari was an island on which stood Te Ngaeo Pā which was a pā associated with Waitaha. This island was destroyed by the Kaituna flood protection scheme during the 1970's.

Te Kopuaroa River

Te Kopuaroa (sometimes known as Te Kopuroa) goes through Te Kopuaroa repo, then west to Hikutawatawa. It is significant to Waitaha because it links the area from Te Kopua where the Kaituna turns down the coast, to the lowlands of the Pāpāmoa Hills. This was one of the main waterways of Waitaha and was used to navigate to and from different pā. It was also a rich food source for Waitaha with clear waters and many kōura and eels. Today its waters are dirty with mud from industrial activity.

Te Raparapa-ā-Hoe Stream

Te Raparapa-ā-Hoe is an awa sacred to Waitaha. The name relates to the many waterfalls and rock formations along its course. It could only be navigated by waka to a certain point and then the rapids made it impossible to continue rowing. Te Raparapa-ā-Hoe has its origins in fissures fed by many underground waterways.

For Waitaha, Te Raparapa-ā-Hoe links the iwi with the maunga Ōtawa, the land on Ōtara that belongs to Waitaha (Te Ūpoko o Taranui), Otatau and Tahipukuhu.

Te Raparapa-ā-Hoe is the lifeblood of Waitaha. It flows past and connects many sites of significance to Waitaha including Onuku Rangitekapua, Puke Poto, Te Manaroa, Te Kopuru, Mangamatai, Hapaitataura and Motungarara. Hei Marae is the only Waitaha marae. It is located on Te Raparapa-ā-Hoe which was used for transport, to irrigate cultivations and to provide food and resources for the pā. Motungarara refers to the red kūmara bug. During different parts of the seasons, our whānau would go there and use the waters from Te Raparapa-ā-Hoe to rid our cultivations of the kūmara bug.

Te Taumata is an urupā near Hei Marae on the banks of Te Raparapa-ā-Hoe. It is the place where tūpāpaku were interred so they could be taken back to Rangiwewehi at a later time.

Te Atuaroa River forms where Te Raparapa-ā-Hoe is joined by the Kirikiri, but it is still called Te Raparapa-ā-Hoe. At the confluence of these waterways is the pā, Te Puata. Te Puata was the pā of Haraki, the first wife of Te Iwikoroke. Haraki is also descended from Waitaha and this alliance strengthened the Waitaha lines.

The main tracks coming down from Ōtawa crossed through here to Te Tapuae and Te Puke the original Te Puke, not the town now known as Te Puke. It is in this area of Te Raparapa-ā-Hoe that fishermen came across giant tuna with holes in their tails. These tuna had been left there to feed the tuna that were trapped in the crevices in these rocks. Anyone taking these tuna is advised to throw them back straight away as they are kaitiaki and were kept for that purpose. The names of these tuna referred to by our tūpuna for these eels are "Koroua" and the tuna that they feed on are called "Tūpuna".

Waimihia was a nohoanga kāinga used during the food gathering season. It was used for preserving kererū and other food gathered from the forests. It is located on the Waimihia Stream which also flows into Te Raparapa-ā-Hoe.

Waiari Stream

For Waitaha, Waiari means the “soft, soothing sounds of the flowing water, where the voices of the tūpuna are heard”. The Waiari marks the boundary for Waitaha.

The Waiari was the scene for inter-tribal warfare in former times and was used as a strategic location. Within the Waiari catchment area are numerous pā sites, wāhi tapu and other sites of significance to Waitaha. These include places where Waitaha tūpuna were born and died, and also where Waitaha performed tribal baptisms. Some burials took place in secret and these sites are not revealed to others.

Harakeke was found in profusion along the banks of the Waiari. Harakeke was gathered for medicinal purposes; and to make weirs and hīnaki to catch eels. Eels were found in abundance along the Waiari and often they were so plentiful and the water so clear, that you could spear them from the banks rather than trapping them in weirs or using a hīnaki.

There were many Waitaha pā sites running along the western side of the river bank that were named by Hakaraia. However, most of these were destroyed by the flood protection schemes of the twentieth century.

The Waiari flows into the Kaituna at the area where the Pā Te Ngaeo formerly was; from there we go to Te Pohue, Te Arapaia, to Te Aore, to Kahikitea, Otaraninia, Patete, Horouauahi, which were all tangibly linked to hei puke puke maunga Te Puke Taweare, then go to Puta-a-Ruru, Otaumaruru, the Oturuturu Creek, then to Waiwiri, then to the Mangatōi River to Te Rerenga and then to Te Tihi o Ōtanewainuku.

Te Pohue situated on a headland jutting out into the wetlands of the Waiari. The area where the Te Puke township now is was known to Waitaha as Te Pohue. Te Pohue was the name of the pā that was situated on the block and which has now been destroyed through urban development. The Waiari provided access to the pā through the repo.

Although it was not a substantial settlement, Kahikatie was a nohoanga kāinga of Waitaha. There were several settlements located nearby. Otaraninia was a Waitaha pā. “Ka tanuhia ki ngā Parapara o Waitaha”. The urupā for Waitaha is there now. If anyone is buried at Otaraninia they cannot be disinterred. Patete was a pā site near Otaraninia.

Horouauahi was a Waitaha pā and it contained mahinga kai. It was also occupied by Hakaraia Tipene in his time. Access to these areas was provided through the repo.

Put-a-Ruru was a nohoanga kāinga along the banks of the Waiari. It was a place where Waitaha travelers would rest on their way to Rotorua. This kāinga also contained mahinga kai. It is sometimes known as Putaruru.

Ngāti Rereamanu under Hineata were based at Otaumaruru on the upper reaches of the Waiari Stream where they prepared hināu, planted rīwai, kūmara and dug fern root and

cultivated forest foods such as fern root, hinau, pikopiko, harore, ure and tawhara. Many of our Waitaha tūpuna were buried within this area as well.

The Oturuturu Creek also runs into the upper reaches of the Waiari Stream. This is a place where Waitaha rested when they were travelling to Rotorua. Cultivations of potatoes, kūmara were planted here as well as the harvesting of forest food.

Waiwiri was a Waitaha pā on a rocky precipice, so named because when Hinehou was at this location; her knees were trembling as she took cover in the hills as a battle raged. This pā is located near to the confluence of the Whatonga Creek and Te Rerenga Stream.

Wairākei Stream

The whole Wairākei area used to fill with water when the tide came in. The Wairākei Stream was navigable, and our people used it to travel by waka up to their pā and papakāinga in the Pāpāmoa hills. Now it is all dried up. The Wairākei River was partially filled by the overflow of water from the Kaituna River into the lagoon area on the coastline and also from waters from the Parapara repo. Horoipia repo is an area along the coast that also connects to the Wairākei.

This was a significant waterway for Waitaha to navigate to and from different pā and nohoanga kāinga. Subsequent development by local/regional councils saw the disappearance of the river. This was also a significant mahinga kai for Waitaha. This area also marks the eastern end of the Tauranga Lands Act confiscation boundary.

Coastal marine area from Maketū to Mauao

Otūmatawhero is located on the coast about midway between Wairākei and Te Tumu in an area that was known to Waitaha as Te Oku. Te Oku was the name of the porpoise that followed the waka Te Arawa into Maketū. Otūmatawhero was also on the ancient highway system, with a major track heading east following the Wairākei Stream then crossing the Horoipia repo, toward the Kaituna.

There is also a strong relationship between Otūmatawhero and Te Tumu which was a significant coastal site as it was a strategic location linking Pāpāmoa to Maketu. Whoever held Te Tumu Pā had military advantage for that area. In the 1830's Te Tumu and Maketu were fiercely contested.

Wairākei is located mid-way between Maketu and Mauao. Individual pā and other significant sites were physically linked as stepping-stones across the vast wetlands and dune plains. Streams originating in the hills around Ōtawa crossed the plain, emptying into the wetlands, then finding their courses into Te Awa o Wairākei or the Kaituna River. This included Te Kopuaroa and Te Raparapa-ā-Hoe. The former lagoon at Wairākei was fringed with raupō and manuka and had an abundance of fish which could be seen by a person standing on the banks because the water was as clear as glass. The lagoon became a casualty of drainage and flood protection works and urban development.

The first Waitaha occupation of Wairākei began when the waka Te Arawa followed a porpoise up the Wairākei River. It is historically known as Te Okuroa o Wairākei. The first settler in that area was Rongomaitane, a son of Waitaha. His son was Te Haehae and the son of Te Haehae was Whitikiore who is associated with the Pā Te Kio.

Statements of Association from Ngāti Rangiwehē Statutory Acknowledgement Areas

Excerpts below

Maketū Wildlife Management Reserve

Papahikahawai (including the Maketu Wildlife Management Reserve) lies at the centre of what was a fertile and resource-rich area. Ngāti Rangiwehē moved between the historic pa sites built at Papahikahawai, Te Tumu and Otaiparia. They lived simultaneously at the pa and established extensive food cultivations in these locations.

According to Ngāti Rangiwehē tradition, the name Papahikahawai refers to the breeding ground for the fish species - kahawai (Papa i Kahawai). Ngāti Rangiwehē exploited the abundance of kahawai in the area as well as other sea food sources. In its time Papahikahawai (and the Maketu Wildlife Management Reserve) was regarded as a principal Ngāti Rangiwehē 'food bowl' or pataka kai, and was essential for the wellbeing of the iwi.

The area now known as the Maketu Wildlife Management Reserve also yielded plentiful stocks of flax which Ngāti Rangiwehē cultivated, harvested and dressed for trade. Proceeds from the flax trade were used to purchase and build items including a sailing vessel and flour mill respectively.

Due to the rich resources in the area, these lands were highly prized and contests to acquire them were fierce. According to Ngāti Rangiwehē tradition the tupuna Kahawai played a pivotal role in establishing Ngāti Rangiwehē in this area.

Ngāti Rangiwehē tupuna had considerable knowledge of the best places in the area now known as Maketu Wildlife Management Reserve (part of Papahikahawai) to gather food and other resources, the way to prepare them, and the tikanga for their proper and sustainable use. Rituals prior to cultivation, harvest, and usage of resources are part of the cultural knowledge that Ngāti Rangiwehē calls 'Toku Rangiwehētanga' – the Ngāti Rangiwehē way of being and doing things. These values endure and remain important for Ngāti Rangiwehē today.

Mangapouri Stream

The Ngāti Rangiwehē people settled into their pa along the reaches of the Mangapouri Stream. The people utilised the resources of the Mangapouri Stream as it followed its course to the Mangorewa River.

The stream abounded in eel and other native fish species including an abundance of water fowl. The bush on either side of the stream was likewise full of birds and the people lived well due to the plentiful resources. The people also used certain areas of the stream for performing tohi rites (baptismal rites); they also used certain areas to clean the bodies of the dead prior to burial.

The Mangapouri Stream has been a rich source of native species of fish, eels, kokopu and koaro. Along its banks it provided many other types of food resources for the Ngāti Rangiwewehi people for several generations. Along the banks many variety of plants such as toetoe, aruhe, kiekie, harakeke, manuka, kanuka and a whole host of the different species of fern that had special value and importance to Ngāti Rangiwewehi. The plants were used for medicinal purposes, weaving, building, thatching, dyeing and food.

The Ngāti Rangiwewehi people owned a wide range of taonga made from the plants sourced from the river banks, including flax kits, mats (whariki) and cloaks made from the rare vegetation that grew along the banks. To this day, the banks of the Mangapouri Stream still provide unique raw materials necessary for weaving, building thatching and dyeing.

Mangorewa River

To Ngāti Rangiwewehi, the Mangorewa River is a living entity and comprises its waters, banks, bed, and its streams, tributaries, fisheries, vegetation, wetlands, springs, water column as well as its metaphysical being with its own mauri. It springs from the head waters of Mangorewa Te Taumata situated in the area known to Ngāti Rangiwewehi as Te Riu o Kereru. Later, the Mangorewa River meets up with and absorbs the Ohaupara Stream and eventually converges with the Kaituna River before dispersing out to sea. This watery corridor provides Ngāti Rangiwewehi with a transport route, along and into the fertile and lush land that hugs the water's course.

The Mangorewa River plays an important role in sustaining Ngāti Rangiwewehi, physically and spiritually. It is profoundly rich in food and resources including koura, eel, and native fish. According to a tribal historian Hutana Pokenui, the Mangorewa River, and the open ground surrounding the river banks, was a popular "fern ground" where the much sought-after aruhe was cultivated and harvested in quantity. There were cultivations at the eastern end of the Mangorewa River banks as far as the Wairoto Stream. Additional cultivations ran along either side of the Mangorewa River beginning at the heads where the historic pa site Nonamahorohoro was built.

Ngāti Rangiwewehi considers that the values of mana, whakapapa, tapu, and mauri are central to their relationship with their waterways. Mana defines the kaitiakitanga responsibilities of Ngāti Rangiwewehi, within which Ngāti Rangiwewehi is charged with protecting the mauri or life force of their waterways. Whakapapa defines the genealogical relationship while tapu describes the sacredness or purity of the relationship between Ngāti Rangiwewehi and its waterways including the Mangorewa River. These values remain important to Ngāti Rangiwewehi today.

Ohaupara Stream

The Ohaupara Stream had been a rich source of native species of eels, kokopu and koaro. Its banks provided many other types of food resources for the Ngāti Rangiwewehi people for several generations. From their pa Ngāti Rangiwewehi people cultivated the many varieties of rare plants that grew along the river-banks and other plants including riwai, (potato), wild cabbage and maize.

Along the banks many variety of plants such as toetoe, aruhe, kiekie, harakeke, manuka, kanuka and a whole host of the different species of flora that were used for medicinal, weaving, building, thatching, dyeing and food purposes. Other varieties of rare and valuable flora and fauna were utilised for trade with the people of the coastal area.

Ngāti Rangiwewehi hunted birds and fished along the reaches of the Ohaupara Stream. The stream abounded in eel and other native fish species including an abundance of water fowl. The bush on either side of the stream was likewise full of birds and the people lived well due to the plentiful resources. The people used certain areas of the stream for performing tohi rites (baptismal rites). They also used certain areas to clean the bodies of the dead prior to burial.

The Ngāti Rangiwewehi people owned a wide range of taonga made from the plants sourced from the river banks. The taonga include flax kits, mats (whariki) and cloaks made from the rare vegetation that grew along the banks. To this day, the banks of the Ohaupara Stream still provide unique raw materials necessary for weaving, building thatching and dyeing. The values arising from that traditional and historical association are values consistent with the protection of that history, culture and tradition, the protection of the water quality, the protection of the natural resources and environment, the protection of the aesthetic beauty of the place. Ngāti Rangiwewehi people were very much conservation conscious and they regularly placed rahui (Restrictions) on areas of the stream to allow the rejuvenation of their valuable resources.

Onaia Stream

The Ngāti Rangiwewehi people settled into their pa along the reaches of the Onaia Stream. The people utilised the resources of the Onaia Stream as it flows out to the Mangorewa and Kaituna Rivers.

The Onaia Stream had been a rich source of native species of eels, kokopu koaro and an abundance of water fowl. The banks of the river provided a wide range of food sources for the Ngāti Rangiwewehi people for several generations. From their pa Ngāti Rangiwewehi people cultivated many varieties of rare plants that grew along the banks of the stream and also planted riwai (potato) wild cabbage and maize along the banks of the stream.

The toetoe, aruhe, kiekie, harakeke, manuka, kanuka and other different species of flora used for medicinal, weaving, building, thatching, dyeing and food purposes also grew along the river banks. Other varieties of rare and valuable flora and fauna were utilised for trade with the people of the coastal area.

Certain areas of the stream were also used for traditional purposes like performing tohi rites (baptismal rites) and cleaning the bodies of the dead prior to the tangihanga and burial. The values arising from that traditional and historical association are values consistent with the protection of that history, culture and tradition, the protection of the water quality, the protection of the natural resources and environment, the protection of the aesthetic beauty of the place. Ngāti Rangiwewehi people were very much conservation conscious and they regularly placed rahui (Restrictions) on areas allowing the rejuvenation of their valuable resources.

Part Kaharoa Conservation Forest

Mangorewa Kaharoa was historically known to Ngāti Rangiwewehi as Te Riu o Kereru: the realm of Kereru. According to Ngāti Rangiwewehi tradition this historic name was given by the topuna Kereru after he had secured the Taumata area for the benefit of Ngāti Rangiwewehi. The area now known as the Kaharoa Conservation Forest is historically significant because it falls across part of the original Te Riu o Kereru boundaries.

This was a fertile and resource-rich area and it provided plentiful food and a range of resources for Ngāti Rangiwewehi. The Mangorewa River and the Onaia Stream which border and traverse the land teemed with eel, native fish, freshwater crayfish (koura) and water fowl. Within the area bounded by these waterways, Ngāti Rangiwewehi established food cultivations, and bird snaring sites.

Part Ruato Stream Conservation Area

According to Ngāti Rangiwewehi tradition the mauri of waterways that flows into and beyond the Ngāti Rangiwewehi rohe connects the physical and spiritual worlds, links the past and present generations, and creates new life. The ways in which the Ruato Stream Conservation Area was used by Ngāti Rangiwewehi illustrate well these elements. At certain points in the Ruato Stream, tohi (baptismal) rites were carried out while in other parts of the stream Ngāti Rangiwewehi washed and prepared tupapaku (the bodies of the dead) in readiness for tangihanga and eventual 'burial'.

The Ruato Stream Conservation Area also provided a rich supply of food and resources, eel, native fish, freshwater crayfish (koura), and water fowl were taken regularly. Historic pa sites were built nearby and along the banks grew large cultivation plots. Flax was abundant and formed an integral part of the new Ngāti Rangiwewehi trading economy. Further inland, leaves, berries, and seeds were gathered as food and medicine from the native stands of Kawakawa, Miro, Tawa and Karaka.

Part Taumata Scenic Reserve

Ngāti Rangiwewehi established many historic pa sites in the Taumata area. Numerous cultivations, eel weirs, and bird snaring sites were also dotted throughout the area. The more notable cultivations were Kaitarakihi near Mangakopikopiko, Pukehou, Tapairu, Torehanui, Kamemahue, Te Akataramo, Opakapaka, Tutarere, Te Taiki, and Ngawharo.

Kaituna River

The stern anchor of the Arawa waka (named Tuterangi Haruru) is said to have been placed at Te Awahou, roughly where the Kaituna River now flows out to sea. The bow anchor (called Tokaparore) of the Arawa waka was set approximately where the Kaituna River used to flow out to sea at Maketu.

The Ngāti Rangiwewehi people settled along the reaches of the Kaituna River from Tumu Kaituna as it followed its course to the sea at the Maketu Estuary. The Kaituna River has been a rich source of fish, all types of shellfish, eels, inanga (whitebait), and many other kinds of food that sustained Ngāti Rangiwewehi people for several generations.

Along the banks of the river grew many varieties of plants such as toetoe, aruhe, kiekie, harakeke, manuka, kanuka and many other types that had special value and importance to Ngāti Rangiwewehi. The plants were used for medicinal purposes, weaving, building, thatching, food and dyeing. The Ngāti Rangiwewehi people owned a wide range of taonga made from the plants sourced from the river banks, including flax kits, mats, (Whariki) and cloaks made from the rare vegetation that grew along the banks. To this day, the banks of the Kaituna River still provide unique raw materials necessary for weaving, building thatching and dyeing.

As well as providing the many food gathering places and plant life, the Kaituna River also provided Ngāti Rangiwewehi a means of transportation to other parts of the Arawa region. Ngāti Rangiwewehi cultivated along the river from Tumu Kaituna to Otaiparia to Papahikahawai.

Te Rerenga Stream

The Ngāti Rangiwewehi people settled into their pa along the reaches of Te Rerenga stream which flows through the area Ngāti Rangiwewehi calls Te Riu o Kereru.




Te Rerenga Stream had been a rich source of native species of eels, kokopu koaro and an abundance of water fowl. The banks of the river provided a wide range of food sources for the Ngāti Rangiwewehi people for several generations. From their pa Ngāti Rangiwewehi people cultivated many varieties of rare plants that grew along the banks of the stream and also planted riwai (potato) wild cabbage and maize along the banks of the stream. The toetoe, aruhe, kiekie, harakeke, manuka, kanuka and other different species of flora used for medicinal, weaving, building, thatching, dyeing and food purposes also grew along the river banks. Other varieties of rare and valuable flora and fauna were utilised for trade with the people of the coastal area.

Te Rerenga Stream is an area rich in the traditional history of the Ngāti Rangiwewehi Iwi. The Rangiwewehi stronghold Toariri Pa once stood where the Mangakopiko and Te Rerenga Streams meet; and the construction of original roadway from Te Rerenga Stream to the Mangapouri was only made possible by the agreement of the Ngāti Rangiwewehi people. This road enabled Ngāti Rangiwewehi to make greater use of the Te Rerenga Stream and it was used as a trade route to the coast.



Freshwater fisheries monitoring plans or projects

The following are examples of freshwater fisheries monitoring plans or projects outside of the Kaituna River Catchment.

Project	Description																
Waikato-Tainui College for Research and Development (2016). Restoring tuna: A guide for the Waikato and Waipaa River Catchment.	Describes the range of ways in which tuna: Populations are sampled / monitored. This includes data collection, storage, biosecurity and health & safety. Habitats can be restored. This includes restoration at existing habitats, flood plains, river elbows, new ponds/wetlands and fish passage.																
Wai Ora Lake Okataina Fisheries Project (2019) Joint project between Ngāti Tarawhai and TALT.	Use of tau koura to undertake baseline koura monitoring. Also koeke interviews for traditional knowledge. Project highlights the benefits in relation to knowledge transfer and reo revitalisation.																
Maniapoto Freshwater Cultural Assessment Framework (2019) Joint project between Ngāti Maniapoto and NIWA.	<p>Development of freshwater assessment tool and training for kaitiaki, including SHMAK, E.coli testing, invertebrate identification as well as fish and tuna monitoring. Tool developed via research and wananga. Three core values common to all whanau – tuna, swimming, drinking water.</p> <p>Specific attributes and indicators for tuna:</p> <div><table><thead><tr><th>VALUE</th><th>ATTRIBUTES</th><th>INDICATORS</th></tr></thead><tbody><tr><td rowspan="6"></td><td>MANIAPOTO TRADITIONAL PRACTICES</td><td><ul style="list-style-type: none">Whānau are using traditional practices (e.g. pā tuna)Traditional fishing resources are availableWhānau observing migrations up/downstream</td></tr><tr><td>SAFE TO ACCESS FOR HARVEST</td><td><ul style="list-style-type: none">Whānau are satisfied that riparian vegetation is not impacting accessWhānau are satisfied that surrounding land ownership is not impacting accessWhānau are satisfied that regulations are not impacting access</td></tr><tr><td>TUNA SIZE, CONDITION AND SAFE TO EAT</td><td><ul style="list-style-type: none">Tuna are in good conditionTuna are parasite freeA range of sizes are presentTuna are safe to eat</td></tr><tr><td>HEALTH OF ECOSYSTEM TO SUPPORT TUNA</td><td><ul style="list-style-type: none">No barriers to tuna migrationHuman activities are not impacting tunaPlenty of kai to support tuna populationsWhānau are satisfied with riparian vegetation, water flow and quality</td></tr><tr><td>TUNA SPECIES ABUNDANCE AND DISTRIBUTION</td><td><ul style="list-style-type: none">Longfins are present at whānau fishing sitesTuna are available in sufficient numbers to support whānau harvest</td></tr><tr><td></td><td></td></tr></tbody></table></div>	VALUE	ATTRIBUTES	INDICATORS		MANIAPOTO TRADITIONAL PRACTICES	<ul style="list-style-type: none">Whānau are using traditional practices (e.g. pā tuna)Traditional fishing resources are availableWhānau observing migrations up/downstream	SAFE TO ACCESS FOR HARVEST	<ul style="list-style-type: none">Whānau are satisfied that riparian vegetation is not impacting accessWhānau are satisfied that surrounding land ownership is not impacting accessWhānau are satisfied that regulations are not impacting access	TUNA SIZE, CONDITION AND SAFE TO EAT	<ul style="list-style-type: none">Tuna are in good conditionTuna are parasite freeA range of sizes are presentTuna are safe to eat	HEALTH OF ECOSYSTEM TO SUPPORT TUNA	<ul style="list-style-type: none">No barriers to tuna migrationHuman activities are not impacting tunaPlenty of kai to support tuna populationsWhānau are satisfied with riparian vegetation, water flow and quality	TUNA SPECIES ABUNDANCE AND DISTRIBUTION	<ul style="list-style-type: none">Longfins are present at whānau fishing sitesTuna are available in sufficient numbers to support whānau harvest		
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Manawatu Urban Eels Implementation Plan (2018) Joint tuna restoration plan between Councils, mana whenua, and Massey University.	Outlines traditional tuna fishing methods (weir, stands, hīnaki, eel bob, blind stream channels, hand catching) and role of tapu and maramataka.
Te Arawa River Iwi Trust (2019) Te Arawa River Iwi Trust Fish Plan.	Includes information about traditional methods for fishing (rama, matarau, rapu) and traditional fisheries management tools (rahui, size limitations).
Maniapoto Māori Trust Board (2015) He Mahere Ika: Maniapoto Upper Waipa River Fisheries Plan	Includes information about native fish, significance of tuna, traditional fishing methods and practices, as well as traditional use of tuna.

