TAIPIRI

EMPOWERING KAITIAKI OF TAURANGA
MOANA WITH MĀTAURANGA FROM
AOTEAROA AND BEYOND
VIA AN ONLINE RESOURCE CENTRE

TAIPIRI 2019

"Ko Tangaroa ara rau"
Tangaroa of many paths

KARAKIA

Aio Aio
Aio mānahanaha
Aio mākohakoha
Aio mārokiroki
Tumutumu parea rākau parea
Whānui te ara ki taiao ki Te Ao Mārama

Mai e tuku
Mai e i te tipua
Mai e i te tawhito
Mai e i te kāhui o ngā ariki
Mai e tāwhiwhi atu ki a Tangaroa
E Tangaroa whakairia ki runga

Tūturu whakamaua kia tina
Tina!
Haumi e
Hui e
Tāiki e!

Cover page: The many tides of Tauranga Moana surround Motuopuhi. Source: Manaaki Te Awanui.

This page: View over Papatu point during the Oranga Tangata, Oranga Taiao Wānanga, Te Kura ā Māia, Ōtāwhiwhi, Tauranga Moana. Source: Manaaki Te Awanui.

TAIPIRI

TAHI

Background picture: Pipi monitoring,
Ōtāwhiwhi, Tauranga moana.
Source: Manaaki Te Awanui

NAU MAI

WELCOME

Tuia i runga
Tuia i raro
Tuia i roto
Tuia i waho
Tuia i te here tangata
Ka rongo te pō, ka rongo te ao
O tūi whakaputaina ki te whai ao
Ki Te Ao Mārama

Ka tū whakaotinuku
Ka tū whakaotirangi
Te manawa ko taku manawa e Tāne ka irihia
Whano whano haramai te toki
Haumi e, hui e. tāiki e!

Kia mihi atu ki te maunga a Mauao, e tū mai nei
Te wai ō Te Awanui e rere nei ki te Moana ā Toi
Tēnā kōrua

Ka tangi ake ki ngā mate kua pā mamae nei
Kia a tātou katoa, e kore e tāea te whakahuahua
Heoi anō, ko te kōrero ki a rātou haere ki te
kāpunipuni o tēnei mea te wairua ki te okiokinga
tonutanga kei te wahangūtanga o te tangata
*'Tū ana te rārangi maunga, whatungarongaro te
rārangi tangata'*
Nō reira, heare, haere, haere atu rā

Otirā, kia koutou te hunga ora
E ngā manuhiri o nga hau e wha
E ngā waka o ngā tai e whā
E ngā karangaranga maha
Tēnā koutou, tēnā koutou, tēnā koutou katoa

Tihei mauri ora!

NGĀ MIHI

Ka rere ngā mihi ki ngā iwi katoa o Tauranga Moana, he mihi mahana ki ngā hapū mōrehu me ngā marae maha o Ngāti Ranginui, Ngāi Te Rangi koutou ko Ngāti Pūkenga.

Ka huri ngā mihi nunui kia koutou e hāpai ana te kaupapa, kia koutou ngā kaitiaki mai Te Whare Tokotoru ki Katikati, tae noa ki Ngāi Tukairangi koutou ko Ngāti Kuku, tēnei te mihi atu kia koutou katoa.

Kia koutou ngā kaitiaki; ka tukuna atu ngā mihi aroha ko koutou kē te ngako o te kaupapa. Ki a Kevin Tohiariki, Tiki Bluegum, Pio Formby, Reon Tuanau, Kia Maia Ellis, Whakarongotai O'Callaghan, Hayden Henry, Riki Nelson, Chris Stokes, Tio Faulkner, Carlton Bidois, koutou ko Whitiora Macleod, tēnā koutou, tēnā koutou tēnā rā koutou katoa.

"Ahakoa uhi uhi te ngaru, ka ea ka ea Te Toka-a-Tirikawa"

"Regardless of the waves, Te Toka-a-Tirikawa remains resilient"

E mihi kau ana ki ngā tini me ngā mano i whāngaia te kaupapa. Ki a Matua Joe Briggs, Nathan James , Dean Flavell, Papa Tu Piahana, Kelly Ratana, ngā tāngata mai te iwi Heiltsuk , te rōpū mai te Paepae o He'eia, koutou ko ngā whānaunga mai Yirrganydji, kei te mihi, kei te mihi, kei te mihi.
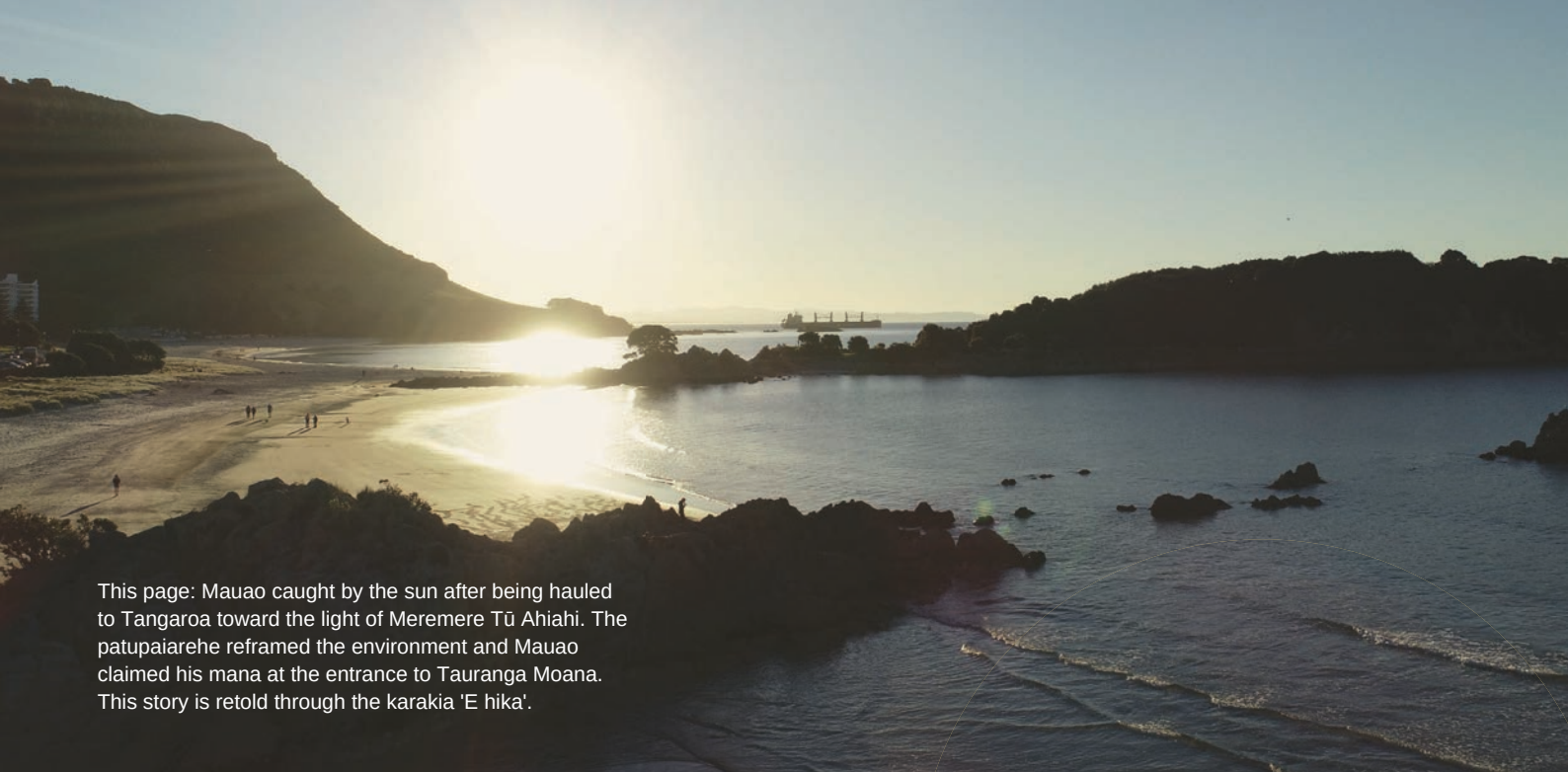
E ngā iwi, e ngā mana, e ngā karangaranga maha o te motu, ka huri ngā mihi kia koutou katoa. Tēnā koutou, tēnā koutou, tēnā tātou katoa.

This page: Waves roll through Te Awanui at the base of Mauao, like the waves that crash upon Tirikawa, the kaitiaki of Tauranga Moana are resilient.

Pou Matua

**Guiding Principles & Core Values
for the Development of the
Online Resource Centre**

This page: Mauao caught by the sun after being hauled to Tangaroa toward the light of Meremere Tū Ahiahi. The patupaiarehe reframed the environment and Mauao claimed his mana at the entrance to Tauranga Moana. This story is retold through the karakia 'E hika'.

RECLAIMING & REFRAMING MĀTAURANGA MĀORI

The essence of this project was to empower kaitiaki of Tauranga Moana with environmental management approaches, frameworks and tools, via the development of an online resource centre.

The project focussed on the reclamation of mātauranga Māori, through hapū engagement, wānanga and kaitiaki interviews. Reframing the learnings from the reclamation process, using pou matua, enhanced the expression of kaitiakitanga by connecting kaitiaki to trusted sources of western science tools.

The development of the online resource centre utilised Māori 'core' values (following page) to guide the digital build process, which included the 'telling of kaitiaki stories' and linking these stories via digital hyperlinks based on whakapapa / genealogical links.

Reclaiming and reframing mātauranga Māori gives kaitiaki the opportunity to develop tools that are meaningful to them. These tools will help streamline kaitiaki responses to marine degradation and increase efficiencies in capture and dissemination.

> "The expression of kaitiakitanga is based on reclaiming and reframing mātauranga Māori"

E hika tū ake
Ki runga rā whitiki taua
Hei tama tū
Umea ki te uru
Kumea ki te tonga
Hiki nuku Hiki rangi I arā rā
Ka ngaru e ngaru e
Toia ki te hau marangai
Kia whakarongo e Taku kiri i
Te kikini o te rehutai
O Ngā ngaru whatiwhati
E haruru mai nei
Wī, wī wī
Wā wā wā A!
Horahia ō mata ki a Mere
Tūahiahi e Hei taki i te ara ki a Tangaroa
He atua hāo i te tini
ki te pō
E kokoia e
ara e

Arise you who slumber
Prepare ourselves
Prove our manhood
Heave to the west
Heave to the south
Move heaven and earth
It awakens, It loosens, shudders
Haul toward the stormy east wind
That the sky may feel
The tang of salt spray
Of the turbulent thundering waves
Wi Wi wi
Wa Wa Wa A! ha! ha!
Cast your eyes heavenward
Toward Venus, the evening star,
To light the path, To the ocean of Tangaroa,
The god who lures many into his embrace,
Into eternal darkness.
Alas, the birds have awakened
Dawn has come

GUIDING PRINCIPLES & CORE VALUES

Mātauranga Māori is a unique way of living that encompasses values and belief systems that explains what, how and why tangata whenua do things in a certain way. Of particular importance to this research is how mātauranga Māori influences the interactions of tangata whenua with te taiao.

Although this research project was initially structured as a stepwise process that pre-laid the development pathways for construction of an online resource centre, it was important that the project allowed the space and time to explore the process of kaitiaki mediated tool development.

The tool development process required a flexible approach and an openness to change. This method not only highlighted a number of key lessons along the way, but it also changed the face of the final product, enhancing participants expression of kaitiakitanga.

Guiding Principles
Whakapiri: Connect Kaitiaki
Whakahāpai: Enhance Kaitiaki
Whakamana: Empower Kaitiaki

The online resource centre development process was guided by the following key lessons:

Building Trust
Through kanohi ki te kanohi, kōrero, uiui and wānanga

Telling Our Stories
Acknowledging kaitiaki stories and their whakapapa connections.

Connection
Building whanaungatanga by connecting kaitiaki to knowledge, tools and people.

Ownership
Maintaining tinorangatiratanga over kaitiaki knowledge.

Protocols
Creating the space to wānanga tikanga and kawa required for the safe keeping of kaitiaki stories.

These key lessons were used to create the guiding principles of whakapiri, whakahāpai and whakamana; to connect, enhance and empower the work of kaitiaki, and to inform the developement of the core values of kanohi ki te kanohi, whakapapa, whanaungatanga, rangatiratanga, tikanga and kawa.

Whakapiri: Connect Kaitiaki
Whakahāpai: Enhance Kaitiaki
Whakamana: Empower Kaitiaki

Background picture: Motuopuhi, Tauranga moana.
Source: Manaaki Te Awanui

These core values were developed through common themes expressed during kaitiaki interviews

CORE VALUES

WHAKAPAPA

Kaitiaki *relate* to each other and the environment through whakapapa connections

Whakapapa links are used to connect kaitiaki & tools

KANOHI KI TE KANOHI

Kaitiaki have a unique connection to the environment, a *face to face* relationship

To connect *face to face* with kaitiaki to understand their needs

WHANAUNGATANGA

Kaitiaki make *key connections* between themselves, others and the environment through whanaungatanga

Enabling *connections* between kaitiaki ā rohe, ā motu, Ao

TIKANGA & KAWA

Kaitiaki actions are governed by tikanga & kawa (lores, rules and guidelines) in accordance with Te Ao Māori

Tools utilised by kaitiaki must be governed by tikanga & kawa
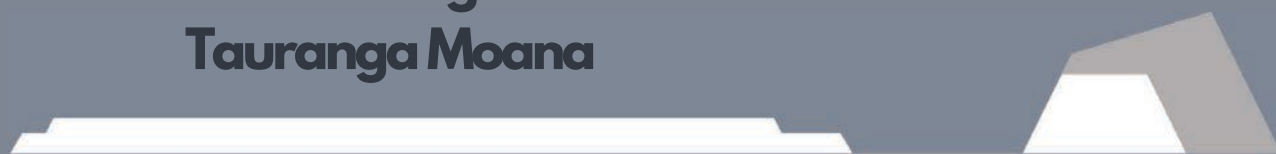
RANGATIRATANGA

To move forward, kaitiaki strive for self determination and *authority* over their rohe and taonga.

Kaitiaki mātauranga is a taonga and must be *cared* for appropriatley

Background picture: Kaitiaki kōrero at Ngā Kurī a Whārei (northern Mātaatua boundary) as the sun rises over Tūhua

Te Whare Tīrara

Learnings from Wānanga and Interviews with Ngā Kaitiaki o Tauranga Moana

"He aha te kai a te rangatira? He kōrero, he kōrero, he kōrero"

What is the food of the chief? It is to speak, it is to discuss, it is to conversate

KANOHI KI TE KANOHI

Kanohi ki te kanohi is a principle of engagement that is crucial to tangata whenua as it provides a safe environment to share information. It is also unique in the fact that as protectors of te taiao; ā-tinana, ā-wairua, ā-hinengaro, ā-whatumanawa, kaitiaki have a unique understanding of what is required to make change and so all responses should be derived from kaitiaki thoughts, wants, needs and aspirations.

Engagement throughout the project was underpinned by the principle of kanohi ki te kanohi. Wānanga, uiui, and kōrero were utilised and adapted based on the kaitiaki group dynamics. Wānanga, uiui and kōrero brought kaitiaki together to share kōrero, experiences and knowledge from their varied perspectives. It created a safe space to openly and honestly give feedback on the progress of the program.

A core component of the tool development was building trust with participant kaitiaki. Sharing and developing knowledge is an empowering process, if done in a way that upholds the mana of the participants and their stories. This project ensured that kaitiaki had time to build relationships with the tool developers, building trust and confidence in the vision and the process of tool development.

The learnings that arose from kaitiaki interviews were that any tool developed for use by kaitiaki should be based on the fundamentals of Te Ao Mārama, building on whanaungatanga, manākitanga and mātauranga.

Top: Kevin Tohiariki wānanga kōrero, Te Rereatukahia Marae

Middle: Whare Taonga Curator Dean Flavell showing exhibits during the Whareroa Wānanga

Bottom: Kaitiaki interviewees Reon Tuanau and Kia Maia Ellis

giving both a platform to work together to inform kaitiaki.

A keystone development came in the form of 'kaitiaki collections' that conveyed the stories and projects of kaitiaki, which contained direct links to trusted western science tools. These direct links were based on familiar genealogical whakapapa connections (tīpuna, mātua, tamariki).

Whakapapa explains how tangata whenua are connected to their tīpuna, to each other and to te taiao.

Early on in the program kaitiaki expressed the desire to share their own stories. The stories that articulate their unique connection to the environment, people and knowledge. Kaitiaki expressed that their world and their connection to the environment goes beyond the physical and that pepeha and whakapapa connect them to natural landscapes, ancestors and other realms.

To begin with kaitiaki were not so much interested in a tool that could communicate western science content and data, but discussions were more focused around how the online tool could facilitate the expression and collection of cultural stories, knowledge and practices.

Kaitiaki ensured that tool development first enabled and empowered kaitiaki to share knowledge and communicate their stories. Once this process was established through the online resource, the next stage saw an exploration of western science tools. This natural progression empowered both Māori and western science knowledge systems, acknowledging the value of both, and

"MĀ TE TUAKANA E TIKA AI TE TEINA, MĀ TE TEINA E TIKA AI TE TUAKANA"

THROUGH RELATIONSHIPS AND RESPECT, WE CAN FIND THE WAY FORWARD

WHAKAPAPA

This Insert:
Indigenous kaitiaki from around the world connect through their environment, in this case , the Pacific Ocean

This Insert:
Kaitiaki express their isolation from other kaitiaki and western science tools

WHANAUNGATANGA

Whanaungatanga is an extension of whakapapa whereby tangata whenua and kaitiaki are able to make links with others to share their interactions with Tangaroa.

Kaitiaki expressed concerns around disconnect and isolation from other groups of kaitiaki locally, nationally and internationally. The online resource centre helped to connect kaitiaki with the stories of other kaitiaki, connecting them to relevant and meaningful knowledge, tools, people and place.

This created a unique space to develop ways of connecting kaitiaki, and then to showcase their projects and the tools utilised throughout their work.

Kaitiaki stories have the power to inspire activate action, an example of this is highlighted in a case study based in the Waipu Estuary, Tauranga Moana.

In this example a kaitaiki utilised the online resource centre to connect to two other kaitiaki groups, through this connection a methodology for investigating Titiko was developed. This activated the participating hapū to investigate the Waipu Estuary. The story was shared via the online resource centre sparking interest from another kaitiaki group who are now planning their monitoring plan, for their estuary.

The trial illustrated that the online resource centre connected kaitiaki both virtually and physically, enabling kaitiaki questions to be answered with the support of western science tools.

"Ehara taku toa i te toa takitahi; engari, he toa takitini"

Success is not the work of one, but the work of many; Together we are more

*Foster the pathway of knowledge to strength,
independance and growth for future generations*

RANGATIRATANGA

Rangatiratanga is the manifestation and acknowledgement of the unique knowledge kaitiaki have and the mana and authority they have as rangatira in their own right. It was imperative that this project upheld the rangatiratanga of all knowledge. Specific consideration was therefore given to kaitiaki autonomy and authority over data, collection, storage and dissemination.

Wānanga is a place where tangata whenua deliberate and discuss information that creates and enhances mātauranga Māori. Manaaki Te Awanui acknowledge the special opportunities that whānau and hapū have given to assist in the digital capture and storage of kōrero during hapū wānanga. This project involved kaitiaki from a number of different hapū, and indigenous nations. With such a wide scope of kaitiaki it was critical that each grouping maintained control over their knowledge and the telling of their stories. Wānanga, uiui and kōrero facilitated in-depth examination and analysis of each development stage, where kaitiaki were able to make informed decisions for the safety of their knowledge, based on the tikanga of each grouping.

It was important that the program development followed an iterative feedback loop, whereby each stage was developed, tested, refined, and reviewed by kaitiaki. Constant feedback loops required immediate response from tool developers and ensured that the program was progressing in the desired direction, fostering trust in the researcher, development process and tool.

Top
Ngāi Tukairangi and Ngāti Kuku kaitiaki discuss with MTA researchers the importance of securing digitally captured wānanga kōrero

Middle
Whānau collecting pipi during wānanga

Bottom
Hapū kaumatua discuss traditional fishing grounds with kaitiaki and rangatahi during a wānanga field excursion

TIKANGA & KAWA

Tikanga are the procedures and lores that govern a Māori way of life and are deeply embedded in Te Ao Māori. **Kawa** are customs that govern formal procedures such as pōwhiri, karakia and removing tapu.

The analogy shared by kaitiaki to explain tikanga and kawa with regards to western science tools, was that of a taiaha:

The taiaha is a tool, a weapon, there are tikanga surrounding its proper and safe use. If it is not used correctly it can be dangerous. Just like western science tools, there are safe ways to use them if the right tikanga are put in place

Tikanga and kawa have served as a protective mechanism to ensure tools and data have safety protocols in place for kaitiaki. Kaitiaki expressed the need to secure private hapū information. The online resource centre was tested in-house by participating kaitiaki and hapū, to ensure sensitive information wasn't shared without the correct tikanga and kawa.

"MOEA TŌ POI, MOEA TŌ TAIAHA"

SLEEP WITH YOUR POI, SLEEP WITH YOUR TAIAHA BE PREPARED TO EXPECT THE UNEXPECTED

Two areas that were identified as being sensitive, were spatial mapping and knowledge dissemination. It was made clear by all participants that tikanga and kawa are needed to ensure the safety of all stories. It is imperative that this stage be given sufficient time to discuss and wānanga the key components of knowledge protection and preservation. Tikanga and kawa will not only determine the levels of trust and confidence but they will also determine how kaitiaki will interact with the story telling journey.

.
This Page:
Canadian kaitiaki welcomed onto Hungahungatoroa Marae under the tapu and kawa of the pōwhiri process

TEKAU MĀ WHĀ

Rārangi Wā

Timeline for the Development of the Online Resource Centre

Timeline: The Development of the Online Resource Centre

Literature Review

- Reviewed 154 scientific papers for the first 3 themes
- Developed excel spreadsheets to create common themes for resource tagging
- Identified gaps relating to content being applicable to kaitiaki needs
- Developed Māori values and Māori words that were likely to be searched by kaitiaki
- Found that the keywords from the scientific papers were not correlating with kaitiaki keywords
- Realisation that the online resource centre will need to have the ability to share more than scientific papers to help fill the gaps

Created excel mock ups of resources to review with kaitiaki

- Overly complicated
- Hard to understand
- Tagging individual resources becoming a long arduous task
- Issues with retagging resources if kaitiaki wanted them changed
- Urgent redesign of this process was needed before presenting to kaitiaki
- Development of word file upload system trialled and abandoned quickly due to format complications creating upload bugs

New folder tagging system

- Resources (PDFs, websites, video and photos) can now be uploaded directly to the online resource centre rather than through excel files
- Folders formed the tagging themes and resources could be easily moved between folders if need be
- Folders could also be linked to other resources quickly
- 300+ resources uploaded to the online resource centre
- 60+ tags created to organise resources

Search engine created for kaitiaki to find resources

- Developed search engine for kaitiaki to find resources quickly
- First quick trials with kaitiaki found that search engine could only find folder names and not keywords within documents
- Search engine assumed kaitiaki would know what they were looking for
- Online training centre missing a link between kaitiaki and resource

Decision made to conduct kaitiaki interviews to find the missing link

- Efforts to review content with kaitiaki abandoned
- Progress toward finding the missing link between kaitiaki and resources implemented

Learnings from kaitiaki interviews

- The missing link, let kaitiaki 'tell their story'
- Connect to other kaitiaki
- Connect to trusted and successful tools used by other kaitiaki
- Base the online tool on the fundamentals of Te Ao Mārama
- Ecosystems Based Management is a more holistic approach that kaitiaki can relate to
- Marine spatial mapping can be dangerous without tikanga and kawa
- Marine spatial mapping comes in the form of pepeha

Timeline Continued:
The Development of the
Online Resource Centre

First mock up created to 'tell kaitiaki stories'

The first mock up created to show kaitiaki how a possible skin layer could look to 'tell kaitiaki stories'. This was a step in the right direction, away from the original 'search engine'. This was the first development of the Māori framework links to tools. At this stage kaitiaki feedback included:

- Need for original photography highlighting mana moana
- More interactive carousel screens rather than dropdown tables
- A fresher colour palette
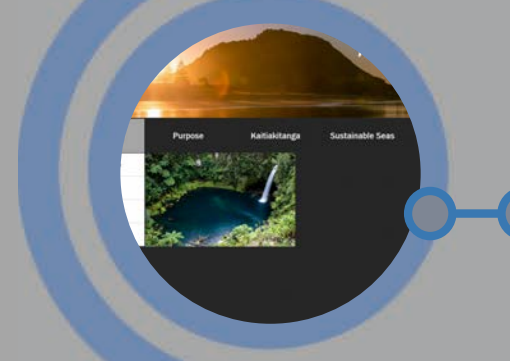
Second mock up with improved layout

The second mock up included a new colour scheme, cleaner tabs with carousel splash pages, and original photography. At this stage kaitiaki feedback included:

- Addition of videos highlighting mana moana and kaitiaki work
- Addition of map flyovers in a pepeha format
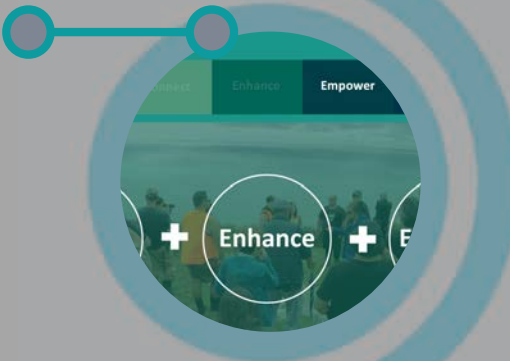
First online version of the new 'tell kaitiaki stories' skin layer

The first online skin layer created using the improvements made from the second mockup, with the additions of linking the main skin layer to a 'video' layer and a 'map' layer. At this stage kaitiaki feedback included:

- Add Māori tab names
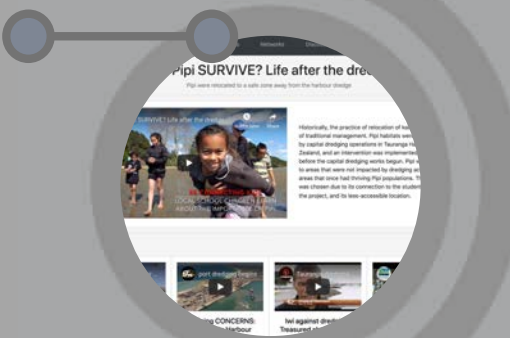- Add web application name and logo

New online video layers added

The online resource centre now has the ability to insert and play youtube videos
Most videos were edited based on current social media trends

- Videos less than three minutes
- Videos contain subtitles
- Video titles and descriptions ask engaging questions

TEKAU MĀ WHITU

TAIPIRI | 2019

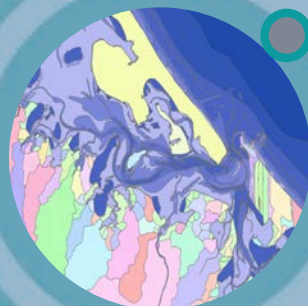# Timeline Continued: The Development of the Online Resource Centre

New collections layer added to 'showcase kaitiaki work'

This layer was designed to showcase the work of kaitiaki in the form of collections. The main purpose of the design was to ensure that kaitiaki had a space where their work was highlighted, and it gave the opportunity for other kaitiaki to link to their work and be inspired by their stories.

Keystone feature 'whakapapa style links' made between kaitiaki work & successful tools

With the addition of the kaitiaki collections to inspire and connect users, the all important keystone feature was developed to ensure that the link was made to the successful western science tools. These were made in the form of 'whakapapa style links'

- Ability to link to PDFs
- Ability to link to websites
- Ability to make geospatial links
- Ability to link to videos

Map layer designed with geospatial links to projects and 'whakapapa style links' to tools

This layer was created to give kaitiaki access to ARC GIS map layers. This has been a popular feature amongst kaitiaki. The map layer was refreshed to link projects with geospatial tags adding photos and successful western science tools to the same page.

Original search function was refreshed and added in as the 'discover' layer

This function was the very first online development made, which utilises key themes to search for content stored within the online resources centre. It was reintroduced as a function for kaitiaki aware of the content themes.

Uploading and editing function for kaitiaki to administer the site

The site can be administered by kaitiaki, reinstating their autonomy and rangatiratanga. This function enables a kaitiaki administrator to upload the content that is applicable to their needs.
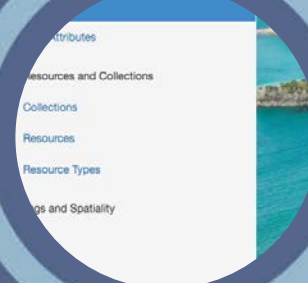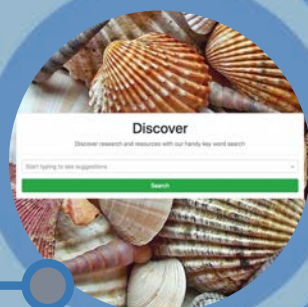
Rauemi Ipurangi

Introduction of the
Online Resource Centre

Connect
whakapiri

LIVE ONLINE RESOURCE CENTRE: FEATURES

TELL KAITIAKI STORIES

The welcome page is home to all the inspiring kaitiaki stories and they link directly to all the western science tools that were used in their projects

INSPIRING STORY COVERS

Captivating footage, engaging titles and descriptions used to inspire and connect kaitiaki
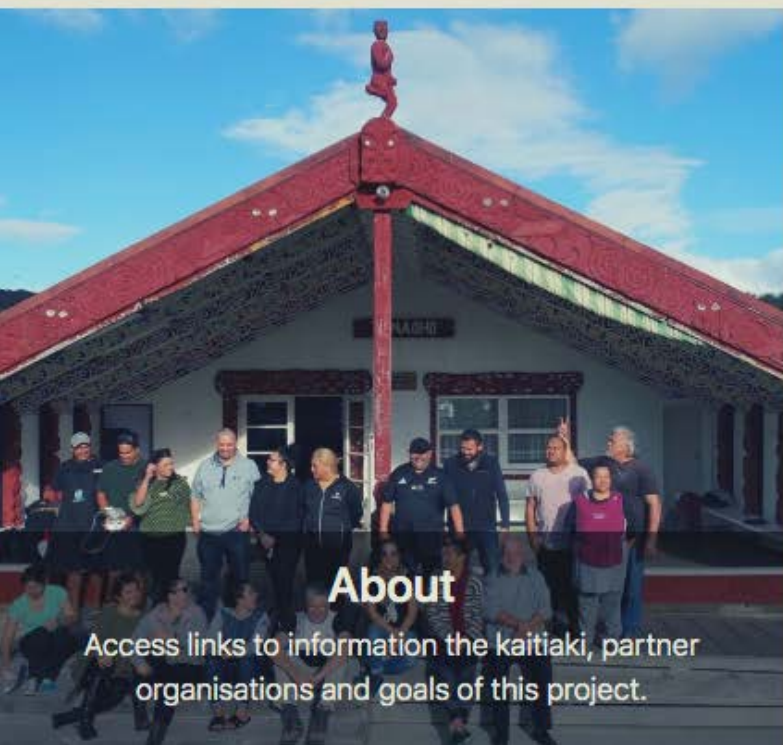
KAITIAKI STORIES CAROUSEL

Kaitiaki stories slide past automatically so users can engage without having to navigate through the site
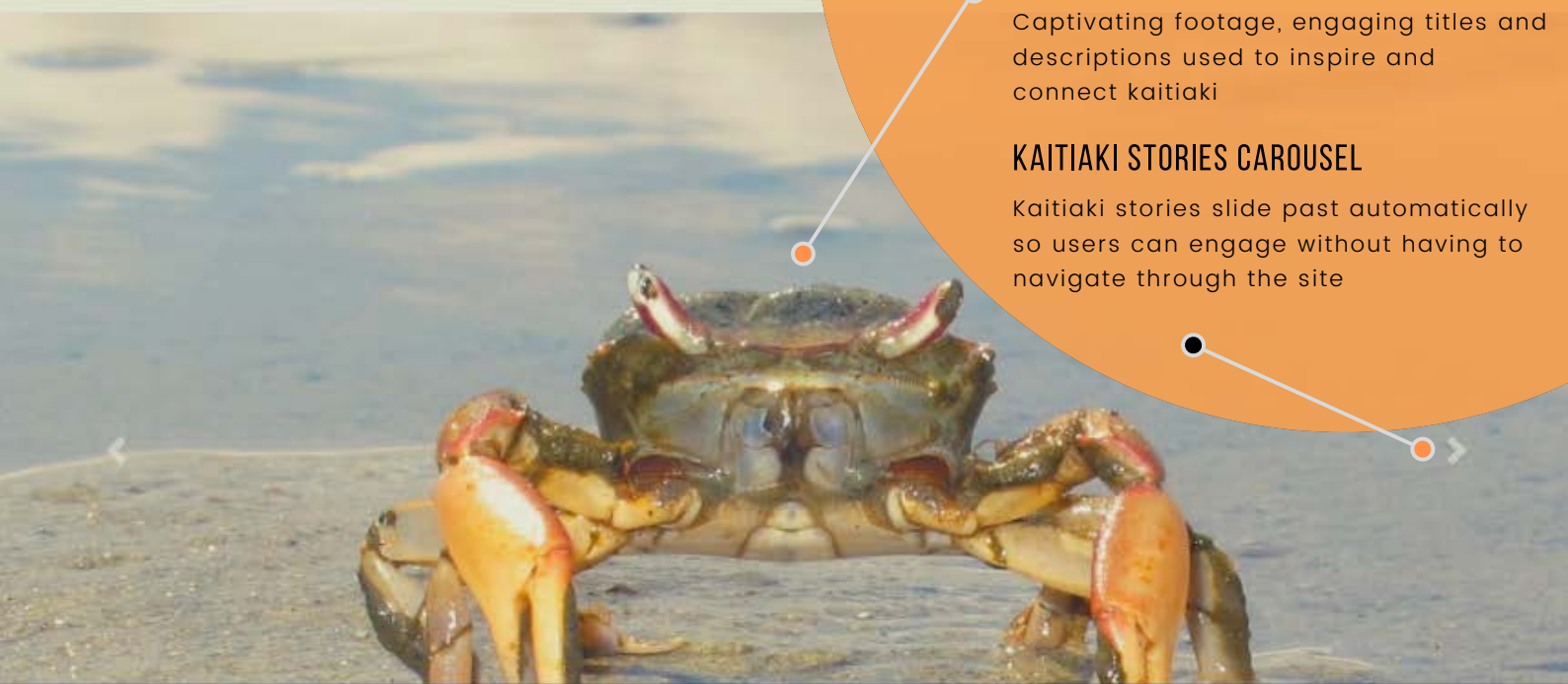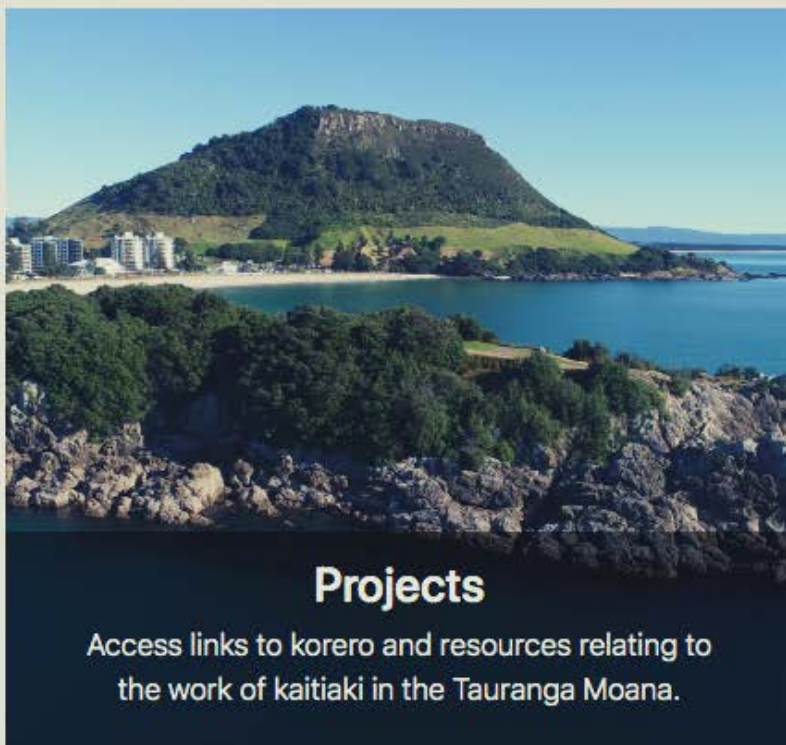
How HEALTHY is Tauranga Moana?

Large scale survey on the ecological health of Tauranga Moana from an Iwi/Hapu perspective

About

Access links to information the kaitiaki, partner organisations and goals of this project.

Projects

Access links to korero and resources relating to the work of kaitiaki in the Tauranga Moana.

Enhance
whakahāpai

VIDEO CAPABILITIES
Video capabilities were added at the request of kaitiaki. Video meant that all projects required an opening video to help tell each story.

SHORT CONCISE DESCRIPTIONS
The advantage of an opening video meant that descriptive passages of texts could be kept to a minimum

WHAKAPAPA STYLE LINKS TO WESTERN SCIENCE TOOLS
The keystone feature and link to the successful western science tools that were uitilised in each kaitiaki project

Welcome   About   Projects

Do Māori KAIMOANA reserves exist?

Te Maunga ō Mauao Mātaitai Reserve arose as a result of the port dev

CULTURAL marine reserves exist in New...

Watch later   Share

Modern Methods
Electronic calipers, SCUBA and GoPro cameras used to capture data

He Mahinga Mataitai o Te Awanui. The need to establish a long-term sub-tidal monitoring programme of customary marine species in the Te Maunga ō Mauao Mātaitai Reserve arose as a result of the port developments within Te Awanui (Tauranga Harbour). Customary marine species can be described as those species which have been harvested by generations of Māori. This monitoring programme looked at the population, distribution and shell sizes of Kina, Paua, Kutai and Pūpū.

4 Pdf

Paritaha Pipi Monitoring - Full Report
This document contains all the methods, results and discussi...

Paritaha Pipi Monitoring - Abstract & Conclusion
Abstract & Conclusion from the Paritaha Monitoring project...

Paritaha Pipi Monitoring - Methods
Methods from the Paritaha Pipi monitoring project...

Paritaha Pipi Monitoring - References
References for Paritaha Pipi monitoring project...

Empower
whakamana

INTERACTIVE GIS LAYERS

Preloaded ARC GIS layers added to assist kaitiaki in reclaiming mātauranga Māori through visual land and marine information.

VISUAL TAIAO MAP LAYERS

Map layers showing pre-1840 land use and habitat cover. These features illustrate old wetlands, rivers & lakes to help assist in conservation projects.

LINKS TO MANAGEMENT TOOLS

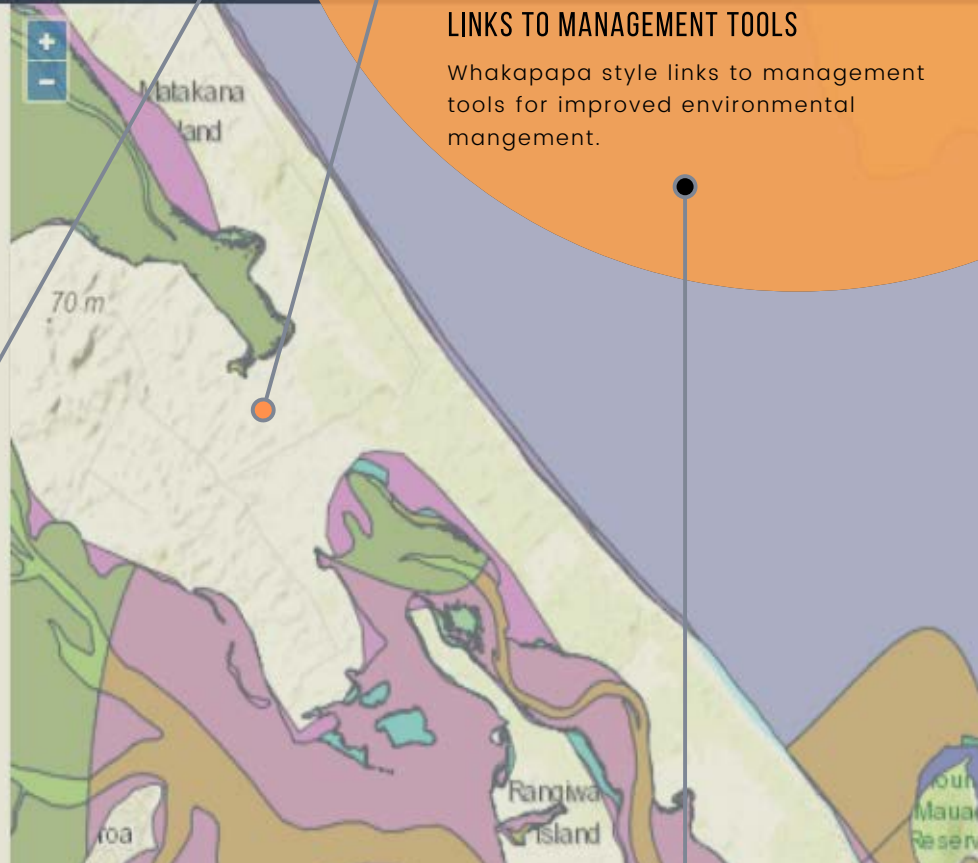Whakapapa style links to management tools for improved environmental mangement.

Welcome   About

Here are displayed the map layers and features we have available, toggle them on to display them

Map Layers

Map resource (vector-based GIS shapefile)
10 results

River ecosystem polygons of the Tauranga Moana

Co-management
Maori and government agencies managing resource equally toge...

Marine species biology
Understanding marine species biology...

Sustain Customary Harvest
What tools exist that help kaitiaki sustain customary harves...

Identify rapid change
Tools and methods to assist identifying causes of rapid chang...

Anamata

Future Development of the Online Resource Centre

GROWTH FOR THE FUTURE

"TITIRO
WHAKAMURI,
KŌKIRI
WHAKAMUA"

LOOK BACK AND
REFLECT, SO YOU CAN
MOVE FORWARD

This Page:
Kaitiaki from Ngā Whare Tokotoru ki
Katikati reflect on the degradation
they've witnessed in the waters near
Ōtāwhiwhi Marae, Tauranga Moana.

Throughout the development process of the online training centre it was evident from the start that there were limited resources available for kaitiaki that were developed by Māori for Māori.

Reclaiming and reframing mātauranga Māori gives kaitiaki the opportunity to develop tools that are meaningful to them. These tools will help streamline kaitiaki responses to marine degradation and increase efficiencies in capture and dissemination.

Wānanga and kaitiaki interviews highlighted the importance of these engagement and discussion processes to tangata whenua and poses the question of; how might Māori tikanga inform western science researchers and academics? Ecosystem Based Management will rely heavily on researchers and academics being well versed in negotiations with tangata whenua and kaitiaki.

Looking toward the future, it is important that any online developments take into account the fast-changing and trending technologies such that the tools will be applicable at the time of release.

Most importantly, much work is needed to develop tikanga and kawa for all the tools developed in this project.
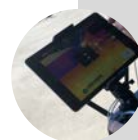
Recommended Future Developments
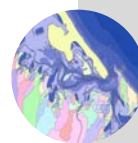
Improved visual mapping for efficient reclamation of mātauranga Māori

Develop new digital mediums for capturing scientific knowledge

Investigate Māori tools and frameworks for use by western science researchers

Investigate the fast-changing technologies of information capture and dissemination

RUA TEKAU MĀ WHA

NGĀ PUNAWAI

NĀ TŌ ROUROU, NĀ TAKU ROUROU, KA ORA AI TE IWI
WITH OUR BASKETS OF KNOWLEDGE COMBINED, OUR PEOPLE WILL THRIVE

Background: The sun shines over Te Maunga o Mauao Mātaitai Reserve, Tauranga Moana

Previous Page:

Insert Top Left: Hayden Henry kōrero at Whareroa whānau wānanga, Tauranga Moana

Insert Top Middle: Kaitiaki Whakarongotai O'Callaghan talks to Paepae o He'eia Hawaiian leaders Hiʻilei Kawelo and Keahi Piʻiohiʻa, Matakana Island, Tauranga Moana

Insert Top Right: Kaitiaki Reon Tuanau, Kia Maia Ellis and Mane Ngatai address manuhiri onboard Mata-Rua, Tauranga Moana

Insert Middle Left: NIWA Researcher Kelly Ratana farewells Yirrganydji aborigonal tribal leader Brian Singleton at the Te Waharoa Indigenous Biosecurity Noho

Insert Centre: Hiʻilei Kawelo talks about the challenges of reinstating the mana to the He'eia community through the restoration of their ancient fishponds in Hawaii

Insert Middle Right: Ngā Whare Tokotoru ki Katikati kaitiaki Kevin Tohiariki and Tiki Bluegum show Manaaki Te Awanui researchers their rohe

Insert Bottom Left: Tuapiro kaitiaki Riki Nelson discusses the Online Resource Centre during an evaluation interview

Insert Bottom Middle: Ngā Whare Tokotoru ki Katikati kaitiaki share stories about their moana

Insert Bottom Right: Te Rereatukahia kaitiaki Tiki Bluegum shows Manaaki Te Awanui researchers the degradation of a local pipi bed

Further Information

This project relied heavily on the reclamation of mātauranga Māori, through hapū engagement, wānanga and kaitiaki interviews. The rangatiratanga and sovereignty of the knowledge shared throughout that time remain with kaitiaki. It is important to stay true to our core values and uphold *kanohi ki te kanohi* as an intergral part of mātauranga Māori knowledge development, and as such, anyone requiring further information about any of the topics stated within this report can be put in contact with the appropriate kaitiaki involved. Please contact Manaaki Te Awanui for further information.

For more information contact:

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Tauranga, New Zealand

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Manaaki Te Awanui is a Māori Environmental Research Group based in Tauranga Moana, Bay of Plenty, New Zealand

POROAKI

According to Mohi Turei, this karakia was recited by Kahukura as Toi-te-Huatahi tasted the sweetness of kūmara. Toi asked if Kahukura could return to Hawaiki to retrieve more kūmara, and presented Kahukura with his waka Horouta! This is my connection to the people of Te Moana-a-Toi!

Ko Hikurangi te maunga,
Ehara tēnei i te maunga neke he maunga tū tonu
Ko Waiapu te awa, e rere ana ki Te Moana-nui-a-Kiwa
*Ko **Horouta** te waka, ko Ngāti Porou te iwi*
Ko Te Whānau-a-Ruataupare rāua ko Te Aotāwarirangi ōku hapū
Ko Te Toka-a-namu a Mihimarino (Tokomaru) taku ūkaipō
Ko Regan Pahewa Fairlie tōku ingoa

My family and I have been extremely privileged to live amongst the wonderful people of Tauranga Moana. Through the years we have had much support from our whānau at Te Kura Kaupapa Māori o Te Kura Kōkiri, te whānau o te waka hourua o Ngahiraka Mai Tawhiti, rātou ko ōku hoa mai Manaaki Te Awanui. It is with this in mind that we have strived to be servants of your people and to support and awhi the challenges you face in protecting your beautiful rohe. Heoi anō, ka huri ngā mihi rangatira kia koutou te whānau whānui o Tauranga Moana, mai ki tērā moka o Ngā Kurī a Whārei, tae noa ki tērā atu moka o Te Timu, tēnā ra tātou katoa.

To the team at Maanaki Te Awanui, a special thank you for being true to your whānau and hapū and working to enable them to move forward in Te Ao Hurihuri, it has and will continue to be a pleasure to work amongst such positive and driven people. To our friends at Ipansophy Ltd and Epiphron Ltd, Dr Anthony Coles and Aaron Coles; thank you Anthony for having the vision to develop digital technology to help our whānau, and to Aaron for being such an amazing talent that took our requests and produced something in cyberspace that exceeded our expectations, again amazing! To Linda Faulkner and the Sustainable Seas Leadership Team, we sincerely thank you all for having the courage to help our whānau navigate this project in a way that truly reflects the challenges they face everyday as kaitiaki.

I'll sign off in the words of the Ngāti Porou Rangatira Tā Apirana Ngata, whos words I feel resonate well with the work being created in the Tangaroa Programme of Sustainable Seas:

Ko tō ringa ki ngā rākau ā te Pākehā hei ara mō tō tinana
Ko tō ngākau ki ngā tāonga a ō tīpuna Māori
Your hands to the tools of Pākehā to provide physical sustenance,
Your heart to the treasures of your Māori ancestors

Ngā mihi maioha, noho ora mai
Nā Regan Pahewa Fairlie
Kairangahau Taiao
Manaaki Te Awanui

♪ *Tauranga Moana*
Mauao Maunga
Ngāti Ranginui,
Ngāi Te Rangi
E mihi nei e tau nei
Rapua e tā e
Puritia e hine
Ngā wawatatanga
a ngā tīpuna,
I roto i tēnei ao hou
Puritia kia mau,
kia mau
Ngā taonga Māori e
Māori e ♪

National SCIENCE Challenges

SUSTAINABLE SEAS | Ko ngā moana whakauka

KA KITE ANŌ

FAREWELL

Unuhia, unuhia
Unuhia ki te uru tapu nui a Tāne
Kia wātea, kia māmā,
 te ngākau, te tinana,
 te wairua ki te ara tangata
Koia rā e Tangaroa,
 whakairia ake ki runga
Kia tina! TINA!
Hui e! TĀIKI E!