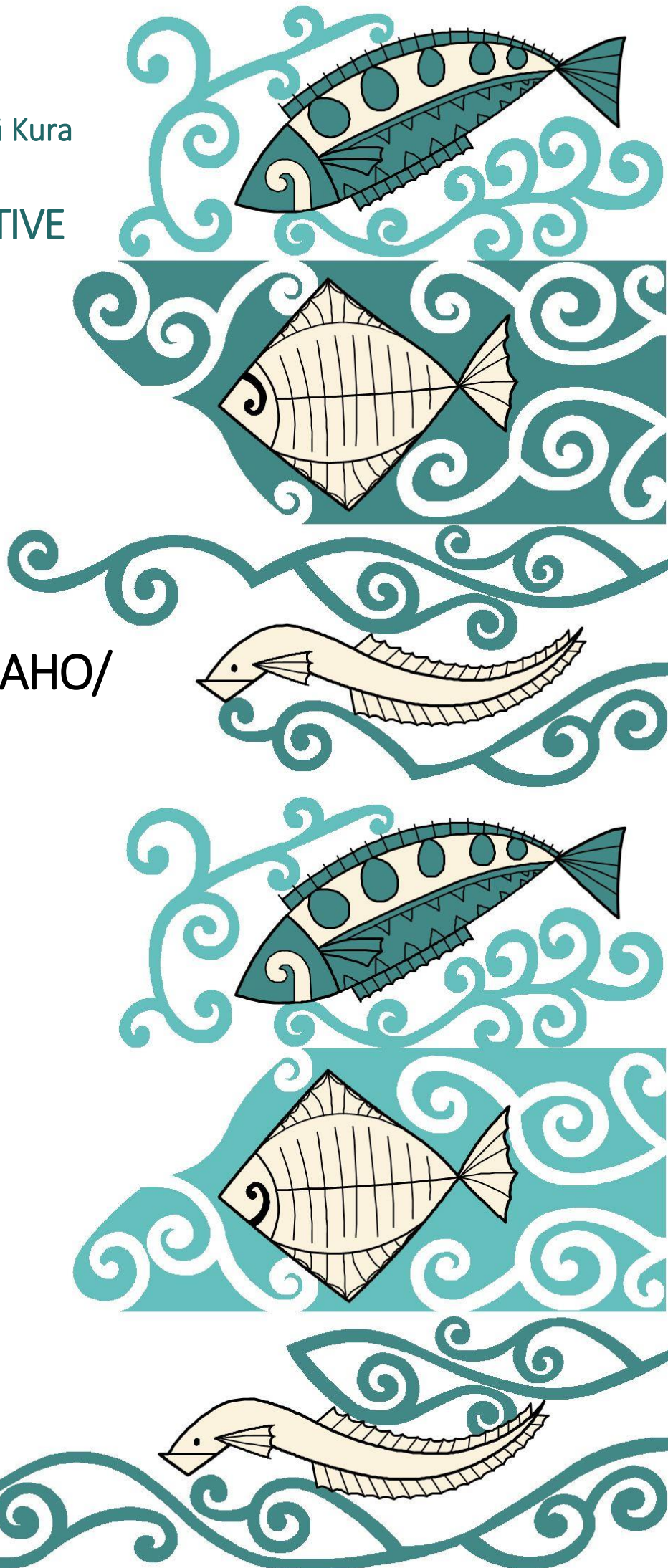


He Puna Kōrero mo ngā Kura  
EDUCATIONAL HUB  
CULTURAL NARRATIVE

TAUWHAREKĀKAHO/  
ROLLESTON



## Ngā Mihi / Acknowledgements

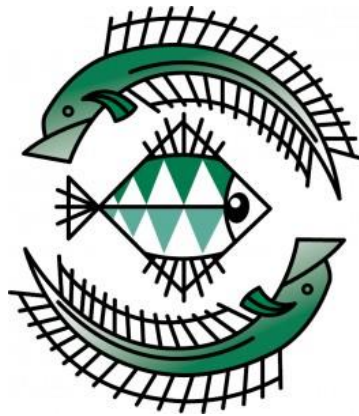
The writers wish to acknowledge the support of the following people and organisations who assisted with this report:

Liz Brown and the Te Taumutu Rūnanga Mātauranga Portfolio

Mātauraka Mahaanui

Takerei Norton and the Te Rūnanga o Ngāi Tahu Cultural Mapping Team

*Nei rā te mihi uruhau ki a tātou*



Prepared by Bridget Robilliard and Craig Pauling on behalf of Te Taumutu Rūnanga  
June 2015

# Mihi Whakatūwhera

**Hoki mai koe ki te pa a Ngāti Moki e  
Tū ana ki te taha o te kahu tai pouri o Te Waihora moana  
E rere ana ki a tatou e**

**Te tuna kohaka  
Whāriki o te piharau  
Ripo o te inaka  
Moeka o te mohoao**

**Tai timu tai pari  
kā wai o Mahaanui ki te Poupou a Te Rakihouia  
Te takiharuru ki te pīkao mumura o Kaitorete whenua**

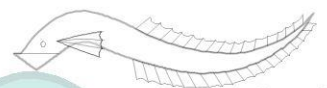
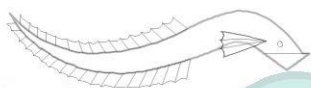
**Pūpu mai ka hau o Tawhirimatea  
i whakapurea te awa huka me te whenua pakihi Waitaha e  
Tihei mauri ora!**

Let us return to the village of Orariki  
That stands beside the darkened waters of Te Waihora  
That flows to us all

Gathering place of the eel  
Floormat of the lamprey  
Spawning swamps of the whitebait  
Sleeping ground of the black flounder

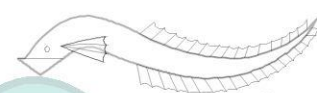
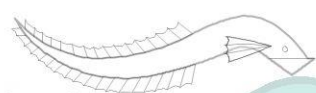
The tides of Mahaanui  
Rise and fall against the great eel weir of Te Rakihouia  
And the blazing sand sedge lands of Kaitorete

The winds of Tawhirimatea blow forth  
Cleansing the snow fed rivers and the great spread out lands of Waitaha  
Behold the life giving forces!



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# 1. Tāhuhu Kōrero

## 1.1 Report Purpose

This report has been commissioned by the Ministry of Education as one of a series of similar packages for ‘hubs’ of educational institutions around the Canterbury Region.

The purpose of this report is to provide insight into the cultural history of the educational institutions’ surroundings to allow these aspects to be incorporated into the design of existing and new educational institutions. For this report ‘design’ refers to both physical (buildings, planting etc.) and non-physical (curriculum, values, kaupapa etc.) aspects of the educational institutions.

This report was prepared on behalf of Te Taumutu Rūnanga in the expectation that this information will aid in the educational institutions’ engagement with Te Ao Māori (The Māori World), including mana whenua, as well as the whakapapa and cultural history of the Educational institution’s wider environment.

## 1.2 Educational Hub

The educational hub of Rolleston currently contains the following educational institutions:

### Primary

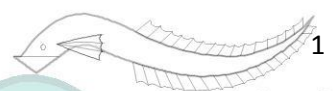
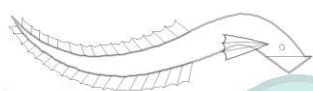
- Rolleston School
- Clearview Primary / Te Kura o Mārama
- Rolleston Christian School
- West Rolleston Primary School (Proposed - opening 2016)
- Rolleston South (Proposed - opening 2017)
- West Melton School / Te Kura o Papatahora
- Weedons School
- Burnham School / Te Kura o Tiore

### Secondary

- Rolleston College (Proposed - opening 2017)

### Early Childhood

- ABC Rolleston
- Burnham Country Montessori
- Burnham Nursery and Preschool
- Kidsfirst Kindertartens Burnham
- Paradise for little Angels
- Rolleston first learners
- Rolleston Playcentre
- Rollykids Early learning Centre
- Selwyn Toddlers Network
- Selwyn Toddlers Kindergarten
- Selwyn Toddlers Quality
- The Cats Pyjamas Preschool
- The Learning Ladder Preschool
- Bright Beginnings Montessori Brookside



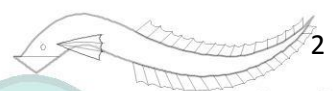
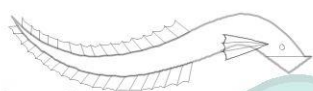


### 1.3 Process

In creating this document the following process has been undertaken:

- Gathering of information from a range of trusted references and creation of draft report;
- Consultation with educational institutions / clusters on design ideas;
- Consultation with cultural specialists;
- Integration of information from consultations into final document

It is expected that an ongoing process of engagement between Te Taumutu Rūnanga and educational institutions will assist with the implementation of ideas and recommendations from this report, particularly in relation to new educational institution development as well as the redevelopment/renewals of existing educational institutions.



## 2. Manawhenua

Manawhenua refers to the mana or 'authority' held by an iwi, hapū or whanau over the land or territory of a particular area. This authority is passed down through whakapapa (genealogy) and is based on the settlement and occupation of, and continued use and control of natural resources within, an area. Manawhenua is also used to describe the people who hold this authority, and who are also considered the kaitiaki (guardian/ caregiver, steward etc.) of their particular area or takiwā.

### 2.1 Ngāi Tahu Whānui and Te Rūnanga o Ngāi Tahu

Ngāi Tahu Whānui are the iwi (Māori tribe) who hold manawhenua over a large proportion of Te Waipounamu – the South Island. The modern iwi originates from three main tribal strands; Waitaha, Ngāti Mamoe and Ngāi Tahu. Through intermarriage, warfare and alliances, these tribal groups migrated, settled, occupied and amalgamated and established manawhenua over their tribal area prior to European arrival. Specific hapū or sub-tribes established control over distinct areas of the island and have maintained their mana over these territories to this day.

Te Rūnanga o Ngāi Tahu is the mandated iwi authority established by Ngāi Tahu Whānui under Section 6 of the Te Runanga o Ngai Tahu Act 1996 to protect the beneficial interests of all members of Ngāi Tahu Whānui, including the beneficial interests of the Papatipu Rūnanga of those members. Te Rūnanga o Ngāi Tahu is governed by elected representatives from each of the 18 Papatipu Rūnanga and has an administrative office as well as a number of commercial companies.

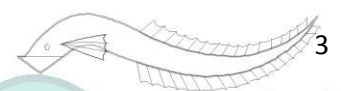
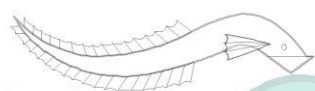
Papatipu Rūnanga are the administrative councils of traditional Ngāi Tahu hapū (sub-tribes) based around their respective kāinga / marae based communities and associated Māori reserves, pā, urupā and mahinga kai areas.

### 2.2 Ngāi Te Ruahikihiki and Te Taumutu Rūnanga

The Rolleston area falls within the takiwā of Te Taumutu Rūnanga, one of 18 Ngāi Tahu Papatipu Rūnanga, based at Ngāti Moki Marae, Taumutu. While, Te Taumutu Rūnanga and Te Ngāi Tūāhuriri (traditionally based at the Kaiapoi Pā) have shared interests in the Selwyn District as part of the Education portfolio agreement, Te Taumutu is recognised as the kaitiaki of the educational institutions in the district.

The takiwā (territory) of Ngāi Te Ruahikihiki, the hāpu who are represented by Te Taumutu Rūnanga is centred around Te Waihora (Lake Ellesmere) and extends across the central part of Kā Pākihi Whakatekateka o Waitaha (the Canterbury Plains) to Kā Tiritiri o Te Moana (The Southern Alps) to the west, the Waimakariri River in the north and to the Hakatere (Ashburton River) in the south. It shares interests with Te Ngāi Tūāhuriri Rūnanga, Te Rūnanga o Arowhenua, and Wairewa Rūnanga to the north, south and east respectively, as well as other rūnanga based on Te Pātaka o Rākaihautū (Banks Peninsula) who have traditional associations with Te Waihora.

The people of Te Taumutu Rūnanga descend from the tipuna or *ancestor*, Te Ruahikihiki and his son Moki (II) who settled at Taumutu in the seventeenth century. Te Ruahikihiki moved from Akaroa Harbour to Taumutu on the southern shores of Te Waihora. Te Ruahikihiki settled at the pā, Orariki, which is where the present day Hone Wetere church and hāpu urupā are located. Moki (II) established his pā site nearby at Taumutu, on the site where the present Ngāti Moki marae is located, near the south-western edge of Te Waihora. In 1891 a wharenuī, named Moki, was opened on the site of the original historic Pā o Moki. The meeting hall has undergone many alterations and additions and is now known as Ngāti Moki. Grass covered mounds of earth can still be seen at the Ngāti Moki pā site. These ramparts run parallel to Pohau Road and are the remains of the traditional battle defences of the original pā (Te Taumutu Rūnanga 2014).



## 2.3 Kōrero Pūrākau - History and Traditions of Te Waipounamu & Te Waihora

### Aoraki and Tū Te Raki-haunoa

According to Ngāi Tahu tradition, the South Island is formed from the wreckage of Te Waka o Aoraki – the canoe of Aoraki, the eldest son of Raki and Pokoharuatapo. Aoraki and his brothers came down from the heavens where they lived with their father Raki (Sky father) in their waka to visit their step mother Papatūānuku (earth mother). While on their visit they encountered a great storm, while reciting a karakia (enchantment) to return them to safety they made a mistake which caused their waka to be upturned. Aoraki and his brothers climbed onto the upturned waka where they turned to stone, they can now be seen as the principle mountains of the Southern Alps, of which Aoraki (Mt Cook) is the highest. It is from this story that the South Island is also referred to as 'Te Waka o Aoraki' (Te Taumutu Rūnanga, 2008)

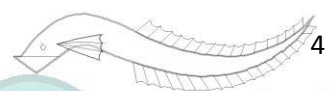
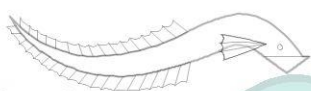
Following the wreckage of Te Waka o Aoraki, Raki sent a number of his mokopuna from the heavens to transform the waka into land that would sustain human life. Among these demi-gods were Tū Te Raki-haunoa whose job was to carve the keel of the upturned waka into mountains and valleys, Kahukura who forested the bare landscape and filled it with animals, and Marokura who carved bays, inlets and estuaries and populated them with fish of many varieties. The mana of Tū Te Raki-haunoa remains to this day given his ongoing residence as the Atua Tiaki (a supreme guardian) for Te Waihora. His resting place at Whakamātakiuru (Fishermans Point) gives the mana to the people of Taumutu as the tangata tiaki for this area.



*Whakaahua 1. Carving by Cliff Whiting depicting Tū Te Raki Haunoa and his relatives making Te Waka o Aoraki ready for human habitation. Source: E ai ki ngā korero mai i Taumutu (Te Taumutu Rūnanga, 2008)*

### Waitaha and Rākaihautū

The first people to arrive in the central Canterbury area were those on the Uruao waka under the captaincy of Te Rakihouia. Te Rakihouia had been instructed by his father Rākaihautū to seek out the rich resources of the coastal area (ki tai) while he traversed the mountain regions identifying the resources of land (ki uta). Te Rakihouia discovered the wetland of Te Waihora that teemed with fish and birds and upon reuniting with his





father took him to the lake where Rākaihautū proclaimed Te Waihora as Te Kete Ika a Rākaihautū – The Great Fish Basket of Rākaihautū. Te Rakihouia equally named the coastline of this area as Kā Poupou a Te Rakihouia.



*Whakaahua 2. Carving depicting Rākaihautū which hangs in the Ngāti Moki Marae. Source: E ai ki ngā korero mai i Taumutu (Te Taumutu Rūnanga, 2008)*

### Ngāti Mamoe and Tutekawa

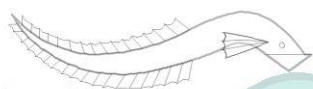
Some generations later a Ngāti Māmoe chief named Tutekawa, who had been embroiled in skirmishes with his chiefly relations in the North Island, came to live at Ōhōkana near Kaiapoi. After a time Tutekawa heard that the eels of Te Waihora were of a better quality so he moved to the shores of the lake and built the pā of Waikākahi. His son Te Rakitāmau meanwhile built his pā at Taumutu which he named Hakitai. Surrounded by his allies, and at a distance from his enemies, Tutekawa felt quite safe. After many years though his hapū were growing anxious with the rapid southward advance of Ngāi Tahu. They urged the old chief to escape while the opportunity remained but his only reply was “What will then become of the basket of flat fish spread open here?” Tutekawa was killed when the Ngāi Tahu forces arrived at Waikākahi, and the various chiefs of Ngāi Tahu set out to secure land for themselves.

### Ngāi Tahu and Te Ruahikihiki

Prior to the arrival of Ngāi Tahu on Banks Peninsula, a young chief Te Ruahikihiki had received reports about the abundance of īnaka, pātiki and tuna in Te Waihora and proclaimed “Tāku kāika ko Orariki” (Orariki at Taumutu is my place), thus placing a tapatapa (claim) on it. Once at Banks Peninsula though, Te Ruahikihiki claimed several places with his first landing at Wainui (Akaroa) where he commenced to dig fern root and cook it. He then passed around the coast leaving his stepson Manaia at Whakamoa, other relatives at Waikākahi, and finally took up his



*Whakaahua 3. Hone Wetere, The Taumutu Māori Church which is located at Orariki, Te Ruahikihiki's Pā. Source: Taumutu Te Wāhi me te Taiao (Te Rūnanga o Taumutu, 2008)*



permanent residency at the pā of Orariki, Taumutu. The ahi kā of Ngāi Te Ruahikihiki remains at Taumutu to this day, and together with the residence of Tūterakihaunoa at Whakamātakiuru, instils the responsibility of kaitiaki for Te Waihora.

### **Taumutu and Ngāti Moki Marae**

A place of occupation for over 600 years, Taumutu has a longstanding cultural history and has been the site of much archaeological interest for this reason. Borrow pits are visible in the paddock across from Ngāti Moki marae. These large depressions in the ground are the result of the removal of earth for use in what are considered to be some of the southernmost kūmara gardens in the South Island.

Taumutu means the 'end of a ridge', or a 'high ridge'. The name may also be a shortened version of Te Pā o Te Ikamutu - a traditional site in the area. The swampy environs of Te Waihora including Waiwhio (Irwell River), Waitātari (Harts Creek) and Waikekewai provided the prime environment for tuna (eels), pātiki (flounder), kanakana (lamprey) and waterfowl such as pūtakitaki (paradise duck). This bounty provided for those living at Taumutu but also afforded them a ready currency for bartering with other hapū all over the South Island.

The 19th century saw the kāinga at Taumutu embroiled in the turmoil of the Kai Huaka feud from 1825-28. The kāinga was then doubly threatened by Te Rauparaha's invasion of the south and the arrival of increasing numbers of European farmers and fishermen.

European immigrants worked to harness the bounty of the lake and develop its surrounding lands into pasture. Ngāi Tahu influence in the area was rapidly eroded culminating in the 1848 Kemp Purchase that saw much of the land at Taumutu passing out of Ngāi Tahu control. Although Ngāi Tahu reserved Te Waihora from the sale, and sort the guarantee of access to mahinga kai, exploitation of the lake and its resources continued and the European presence led to the population at Taumutu being in serious decline by the end of the 19th century.

Despite the decreasing population, a new meeting hall was built and officially opened on 7 May 1891. It replaced an earlier structure that had stood on the same site. The hall was named Moki after the tipuna whose original historic pā had stood on the same ground. Moki has undergone extensive modernisation and additions over the years and so bears little resemblance to its original 1891 form. Since the 1980's there has been a gradual resurgence in the Ngāi Tahu population at Taumutu, with the marae being frequented for monthly Rūnanga meetings, as well as wānanga, whānau events, educational institution visits and other hui. The marae is a favoured spot for wānanga and educational hui and Te Taumutu Rūnanga has invested much time and energy in restoration of the riparian margins of the two streams that meet up at, and run past the marae into Te Waihora.



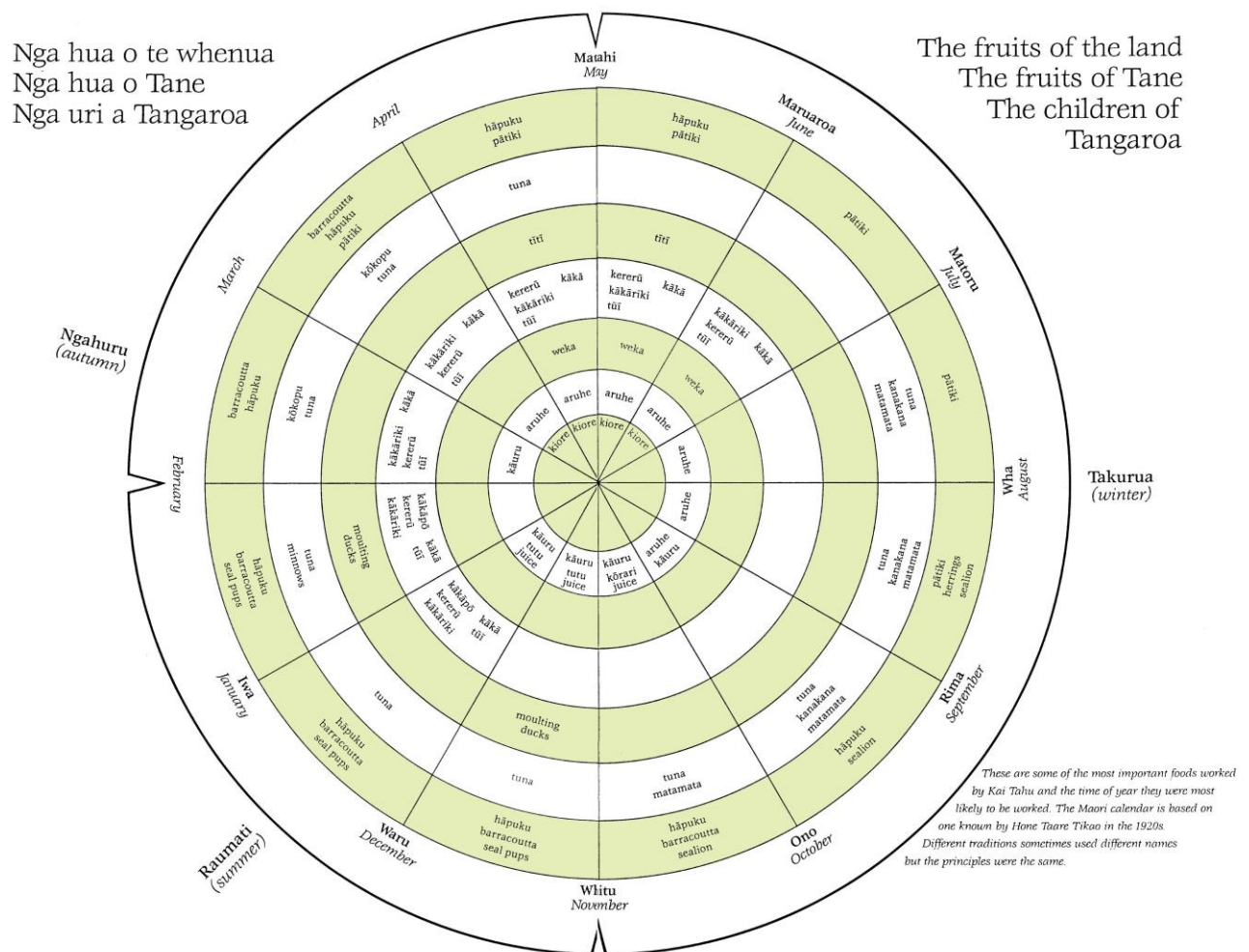
*Whakaahua 4. Ngati Moki Marae. Source: Taumutu Te Wāhi me te Taiao (Te Rūnanga o Taumutu, 2008)*



## 2.4 Mahinga Kai - Working the Land

Mahinga kai, and the associated custom of kai hau kai (exchange of food/resources), is of central importance to Ngāi Tahu culture and identity. Literally meaning 'to work the food', it refers to the gathering of food and resources, the places where they are gathered and the practices used in doing so. Traditional mahinga kai practice involved the seasonal migration of people to key food gathering areas to gather and prepare food and resources to sustain them throughout the year. These hīkoi also provided opportunities to reinforce relationships with the landscape and other whanaunga (relations), develop and share knowledge and provide the resources that could be used for trade.

The mahinga kai chart shown below, based on one known by Hone Taare Tikao in the 1920s and developed by Bill Daker (1990), outlines the major foods worked by Ngāi Tahu, including tuna (eels), matamata (whitebait), tītī (muttonbirds), kererū (wood pigeon), aruhe (fernroot) and kāuru (cabbage tree root), and the time of the year they most were likely to be gathered.



Whakaahua 5. Mahinga kai chart.

From their settlements in and around the Te Waihora, Ngāi Te Ruahikihiki gathered and utilised natural resources from the network of sites across their takiwā that provided food as well as material for housing, garments, adornments and tools. Te Waihora was the key mahinga kai (food source) and the following whakatauki encapsulates the significance and abundance of these food resources:

Ko ngā hau ki ētahi wāhi;  
Ko ngā kai kei Orariki  
*No matter which way the wind blows (season),  
one can always procure food at Taumutu*

## 3. Ngā Tūtohu Whenua - Cultural Landscape Values

The area now known as Rolleston is situated within a traditional network of Ngāi Tahu settlements and mahinga kai areas spread across the central part of Kā Pākihi Whakatekateka o Waitaha (the Canterbury Plains), which are of particular significance to Ngāi Te Ruahikihiki. This network played an important role in the traditional lifeways of manawhenua and remain significant to the heritage and ongoing identity of Ngāi Te Ruahikihiki. These places include numerous wāhi tapu and wāhi taonga such as pā (fortified villages), kāinga (villages), urupā (burials), ara tawhito (trails) as well as mahinga kai. Collectively, these places, along with their associated creation, migration and settlement traditions, form a cultural landscape which reflects the ongoing and enduring relationship Ngāi Tahu and Ngāi Te Ruahikihiki have with the land.

Of particular importance to this network were the travelling routes and connections between the main settlement of Taumutu, the numerous mahinga sites spread around the shore of Te Waihora and along each of the lakes tributaries, as well as those across the plains and linking to the Waimakariri River in the north and the foothill forests and mountain passes to the Tai Poutini (West Coast). Links were also maintained to the key Ngāi Tahu pā and kāinga on Te Pātaka o Rākaihautū (Banks Peninsula), such as Rāpaki and Wairewa, as well as those in Ōtautahi (Christchurch) and further north to Kaiapoi.

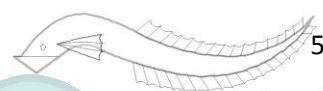
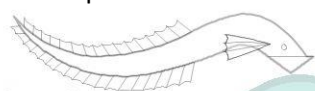
The map on the following page shows the extent of this network as well as some of the features of the landscape that existed in the past. Further information on landscape change is given below, followed by details of the key culturally significant sites known to exist in the Rolleston area.

### 3.1 Whenua Tāwhito – understanding landscape change

Prior to European arrival, the area surrounding Rolleston was very different to the highly modified agricultural and industrial landscape that now exists.

Te Waihora, for example, was much larger than its current extent, with the lake level being much higher and its associated repo or wetlands forming an extensive buffer that reached up towards current day Lincoln and Springston. Critically it provided an abundance of native freshwater fish and waterfowl which made it one of the most significant traditional food sources within Te Waipounamu. The Canterbury Plains or Kā Pākihi Whakatekateka o Waitaha were covered with a mixture of dryland vegetation such as tussock grasslands and kōwhai groves as well as forest patches and a network of snow, spring and rainfed rivers, wetlands and waterways. The Waimakariri was known to flood across the plains with several old river beds, channels and braids providing evidence of this, including the former 'South branch' which formed the islands known today as Mcleans and Coutts Islands. The plains were also home to several flightless native birds including the Eastern buff weka, koreke (native quail) as well as the kiore (polynesian rat), all valuable food species, but now either locally or totally extinct. The foothills and mountains making up part of Kā Tiritiri o Te Moana (the Southern Alps) and Te Pātaka o Rākaihautū (Banks Peninsula) were extensively forested providing for an abundance of native forest birds such as kākā, kererū and kiwi, which provided both food and feathers for adorning korowai (cloaks).

The landuse change which followed European settlement, largely associated with agriculture and urban settlement, along with the introduction of exotic animals and plants, altered the landscape and lifestyle that Ngāi Tahu tūpuna enjoyed. Most significant was the gradual draining of wetlands and the lowering of the level of Te Waihora, as well as the removal and/or displacement of native vegetation on the plains, foothills and the peninsula. This resulted in a degradation of both habitat as well as the species Ngāi Tahu relied on for food and other resources. In particular, several inland wetlands, such as Tararerekautuku (Yarrrs Lagoon) and Ahuriri were completely drained and turned into farmland. Combining with a loss of access to mahinga kai areas following the 1848 Crown purchase of Canterbury meant the traditional network was gradually broken down. The importance of this network and the sites within it, however, remain significant to manawhenua.







### 3.2 Tauwharekākaho and Nihototo

There are two key culturally significant sites that are known to be associated with the Rolleston area and which are important in understanding the cultural heritage and values associated with the area. These sites were part of those recorded by Ngāi Tahu tūpuna Hori Kerei Taiaroa in the 1870s as part of the 1879 Smith-Nairn Commission investigating Ngāi Tahu claims against breaches of the 1848 Kemps Purchase.

#### **Tauwharekākaho**

Tauwharekākaho is a mahinga kai area associated with the Rolleston district. The species gathered there included tuna (eel), numerous waterfowl such as pūtakitaki (paradise ducks), taata (spoonbill) as well as kōrari (harakeke/flax stalks) (Beattie, 1995).

#### **Nihototo**

Nihototo is a former settlement site and mahinga kai area located between Rolleston and Springston. Nihototo was a kāinga (village) with a fortified pā and associated mara or gardens, where taewa (potatoes) and pora (turnips) were grown. The species gathered from the area included aruhe (fern root), tutu (corirua berries), tuna (eel), īnaka (adult whitebait), kōkopu (native trout), pārerā (grey duck), kukupako (black teal/scaup), totokipio (New Zealand dabchick) and taata (spoonbill) (Tau T. M., 2003).

Tauwharekākaho and Nihototo were also part of an inland trail/travelling route leading from Te Waihora, along the Ararira/LII River, through the modern day areas of Lincoln, Rolleston, Templeton and West Melton and linking to the Waimakariri River. This trail included key mahinga kai and/or settlement sites at Tarerekautuku (Yarres Lagoon), Makonui (Clay Bar Lagoon), Te Huaparu (Ruapuna) and Ōkakea (West Melton area).

### 3.3 Other sites

#### **Te Huaparu**

Te Huaparu is the name recorded for a mahinga kai site associated with the Templeton area and what is known today as Ruapuna. The species gathered there included tuna (eel), waterfowl such as pūtakitaki (paradise ducks), aruhe (fernroot) and kōrari (harakeke/flax stalks) (Taiaroa 1880; Beattie 1995).

#### **Ōkakea**

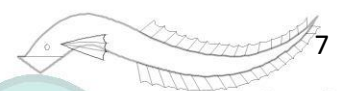
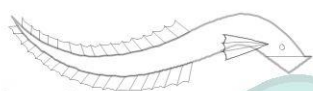
Ōkakea is another former settlement and mahinga kai area, located in the West Melton area, near where the southern branch of the Waimakariri used to flow. Like Nihototo, Ōkakea was a kāinga (village) with a fortified pā and associated mara (gardens) for growing taewa (potatoes) and pora (turnips). Other food and resources gathered there included (eel), birds, kōkopu (native trout) and kōareare (the edible part of raupō/bulrush) (Tau T. M., 2003). (Taiaroa 1880; Beattie 1995).

#### **Te Koara o Te Ūpoko**

Te Koara o Te Ūpoko is a mahinga kai site associated with the Kirwee area and known for the gathering of tuna (eels) (Taiaroa 1880; Beattie 1995).

#### **Tiori**

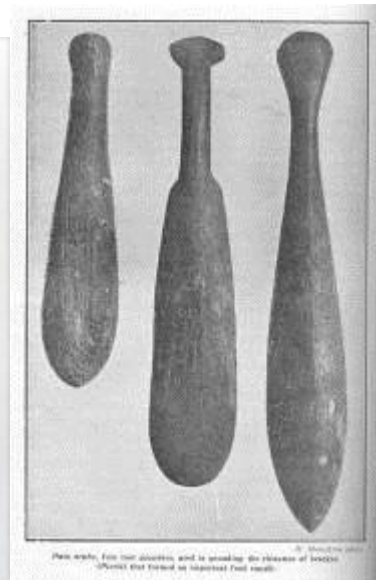
Beattie (1995) records the name Tiori for the Burnham area, and states that it means “to call out loudly, to shout messages or instructions” (Beattie, 1995)







Whakaahua 7. Rauaruhe and Aruhe (source:www.teara.govt.nz).



Whakaahua 8. Patu-aruhe or fern root beater (source: Eldon Best)



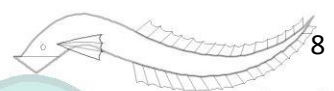
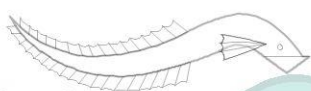
Whakaahua 9. Catching a weka using the whakaki method (source: Heaphy, 1846)



Whakaahua 10. Hinaki or eel trap (source: Te Papa Tongarewa).



Whakaahua 11. Drying tuna on whata at Wairewa (source: Bigwood, 1948).



## 4. Whakaaro Toi – Design in the educational institution environment

This section provides an overview of some of the key ways cultural values can be incorporated into the design of educational institutions within the hub.

### 4.1 Mana – Relationship with Manawhenua

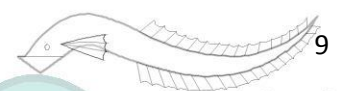
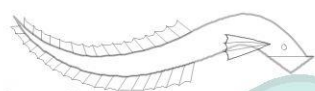
One of the most important aspects of incorporating cultural values into educational institution design is through maintaining a functional relationship with Te Taumutu Rūnanga, and in particular the mandated Mātauranga (Education) Portfolio of the rūnanga. The rūnanga also employ an Education Coordinator who can be contacted in the first instance about any issues relating to advice on working with the rūnanga around incorporating cultural values into educational institutions.

Considering the funding of any projects, events or meetings to ensure adequate resourcing is available to cover peoples time and expertise to be involved is critical. Setting up formal cultural advisory groups or regular resourced engagement is one consideration along with developing joint work programmes/project plans to achieve particular agreed outcomes. Initiating and/or maintaining annual or regular noho marae (marae stays/visits) of students at Ngāti Moki marae is also important. Working with the rūnanga on environmental restoration projects around Te Waihora is another opportunity to foster relationships.

### 4.2 Whakapapa – Identity, Names and Naming

The integration of cultural values, including a reflection of the whakapapa (genealogy) and history of the educational institution and the surrounding landscape into the educational institution's identity is something that Te Taumutu Rūnanga encourages and supports. Doing this creates an authentic sense of heritage and builds an understanding of both Māori and European history and values. Some suggested ways of doing this include:

- Adoption/use of an appropriate Māori name and whakataukī (proverb) for the educational institution. Educational institutions are encouraged to approach Te Taumutu Rūnanga regarding the gifting of a name. If Te Taumutu Rūnanga gifts a name to an educational institution it is expected that this name is honoured by having the same status as the English name of the educational institution, meaning it will be displayed on signage, logos, letterheads, website, newsletters and other material. Te Taumutu Rūnanga also request that staff and students are able to pronounce the name correctly.
- 
- Considering the naming and branding of the educational institution, buildings and elements of the educational institution through the use of Te Reo Māori (Māori Language), and the use of bilingual signage throughout the educational institution;
- Adoption of an appropriate bilingual name and whakataukī (proverb) for the educational institution and incorporating this into educational institution logos, websites and other material;
- Developing a educational institution waiata and/or haka to be used at appropriate events;
- Adoption of elements such as traditional mahinga kai species, plants, birds, fish and traditional stories as symbols or logos for the educational institution, houses, yards, blocks and/or other parts of the educational institution.
- Developing a kaupapa (policy) as well as projects/work programmes which articulates and recognises the commitment of the educational institution to manawhenua and incorporating cultural values into the educational institution; and
- Integrating tikanga practices into the educational institution and educational institution environment





### 4.3 Tikanga – Protocol including mihi whakatau

The integration of cultural practice within educational institutions is something that has been regularly used in educational institution communities for a number of years. In relation to the built design and arrangement of an educational institution, allowance for a space which will comfortably and appropriately host mihi whakatau for a large range of participant numbers is important. Some aspects to consider for this include:

- Providing a suitable space for manuhiri (visitors) to gather before being welcomed on;
- Having a space for the manuhiri to be called through. This may be a waharoa or a space within the building layout;
- Having suitable areas for both the manawhenua (home side) and manuhiri to be seated during whaikōrero (speeches) and waiata/haka. Consideration should be given to the arrangement so that the whare/ educational institution building(s) is/are always open to manuhiri.
- Having suitable access to kai and wai following the formalities.

### 4.4 Whare – Cultural Buildings

Educational institutions are encouraged to provide a whare space, as well as whanau rooms. A whare space could be incorporated into the design of an educational institution hall or other central building and should be positioned where it will be visible to the community. This space does not need to be set aside for solely tikanga practice, but can facilitate a number of uses including wānanga (discussion/learning), hui (meetings) and performances. Although capable of facilitating a wide range of uses it is important that the observation of appropriate protocol is considered and that the space is designed to foster tikanga. Within the layout of the educational institution a space that can act as whānau rooms/space which provide privacy and seating should also be considered. Specific factors for the design of whare and whanau space include:

- Access to kitchen, either within the building in a space that is partitioned off from the main room or with the cafe or food tech room adjacent.
- Positioning of the wharepaku away from food preparation areas.
- Allowance for indoor-outdoor flow, preferably with a verandah space leading off from the whare.
- Narrative of the Educational institution's whakapapa within the whare. This is traditionally done with tukutuku and carvings.

### 4.5 Te Reo Māori – Use of Māori language

The integration of Te Reo Māori through bilingual naming, signage and wayfinding across the educational institution is a valuable symbol of the educational institution's identity. It also supports the integration of cultural values and fosters recognition and use of an important element of New Zealand culture and identity. Educational institutions are encouraged to consult Te Taumutu Rūnanga about the gifting and use of names and Te Reo. Generally, tūpuna or ancestor names are not used but the use of concepts, species and values associated with culturally significant sites in the vicinity of educational institutions are favoured. A list of general names and terms that can be used around the educational institution are shown in table 1 below.

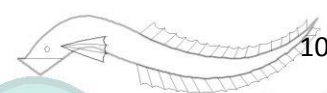
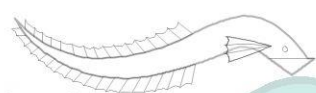


Table 1. Te Reo Names for Educational institution Elements

English	Te Reo Māori
Welcome to .....	Nau mai, haere mai ki .....
Hall	Whare-hui (and/or specific name)
Library	Whare-pukapuka (and/or specific name)
Office	Tari (and/or specific name)
Staff room	Ruma-kaiako / Kāuta-kaiako /
Learning centre	Akomanga (generic) or Give each a specific name
Carpark	Tauranga-waka
- Visitor (park)	- Manuhiri
- Courier (park)	- Karere
- Special needs (park)	- Pararūtiki
- Principal / Deputy Principal	- Tumuaki / Tumuaki tuarua
- Staff/Teacher	- Kaimahi/Kaiako
- Family	- Whānau
Playground	Papa-tākaro
Field/oval	Ātea-purei or papa-purei
Court (basketball/netball)	Papa-utoka or papatau-pōro
Courtyard	Tahua / Ātea
Toilet	Wharepaku or Heketua
- Male/Boys	- Tāne / Tama
- Female/Girls	- Wāhine / Kōtiro
Drinking fountains / taps	Puna-wai
Entrance/Gateway/Fence	Waharoa (for main gate/entrance) / Kūwaha (for other gates/entrances) / Taiapa (fence)
Path/Pathway	Ara / huarahi
Garden (vege)	Māra-kai
Raingarden	Riu-uaia
Stormwater basin	Hāpua-āwhā
Directions	
- North / East / South / West	- Raki / Rāwhiti / Toka / Uru

#### 4.6 Mahi Toi - Artwork and Graphic Integration / Representation

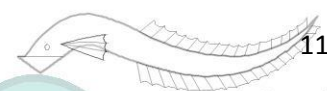
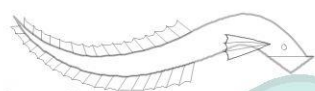
Embracing and utilising design details and ideas drawn from Māori artwork and traditional stories and histories can allow a educational institution to appropriately represent and celebrate Māori identity. Again, utilising themes, concepts, species and values associated with culturally significant sites in the vicinity of educational institutions is favoured and working with the rūnanga is important. Suggestions for ways to these are:

- Selection of educational institution colours which relate to specific stories, kaupapa, history of the area and Te Ao Māori;
- Use of traditional mahi toi (art/craft) such as kōwhaiwhai/ tukutuku either in its literal form or as design inspiration such as paving patterns, frosting patterns on glass;
- Integration of built forms such as waharoa, pou whenua which can also tie in with the narrative/ identity of the educational institution;
- Inclusion of appropriate symbology in educational institution logos and symbols which represent the whakapapa of the educational institution.

#### 4.7 Taiao – Landscaping and Cultural Planting

Landscape design and planting around the educational institution provides an opportunity to enhance the educational institution's identity and foster an understanding of cultural values, particularly associated with mahinga kai. There are number of ways in which this can be done, including:

- Using species which traditionally grew in the area (such as those listed in Appendix 1).
- Using mahinga kai related species which provide an opportunity for learning outside the classroom and about the lives and traditional ecological knowledge of manawhenua (such as those in Table 2.)



- Using rongoā (medicinal) plant species which provide opportunities for learning about traditional medicine (including some of those in Table 2.)
- Using and arranging plants that allow students to engage in manaaki whenua (care of the land) through projects such as revegetation, riparian planting, stormwater filtering, erosion control and carbon sequestration.

Table 2. Suggested Cultural Plants

SCIENTIFIC NAME	COMMON NAME	USE	SUGGESTION FOR INCORPORATION
Phormium tenax	Harakeke/ flax	The leaves of harakeke and muka, the fibre from the leaves, were used extensively for the weaving, the creation of ropes, fishing nets, clothing, kete and more. It was also used in rongoā (the medicinal use of plants) such as the sap being used to treat wounds and burns.	A pā Harakeke which is a collection of harakeke varieties which are chosen for their muka (fibre) or raranga (weaving) qualities would encourage the incorporation of raranga into the curriculum. Consultation with the Rūnanga and/or landcare research will help in selection of suitable plants.
Ficinia spiralis	Pikao/ Pingao	Used in weaving and for the creation of tukutuku panels. Young shoots were also a food source. Note: Pikao grows along Kaitōrete Spits near the pā at Taumutu, it is highly valued by the Rūnanga	Plantings in any suitable, sandy areas would allow the leaves of pikao to be used alongside harakeke leaves in raranga projects
Cordyline australis	Ti Kōuka/ cabbage tree	Parts of the Ti Kōuka trees were an important food source while the leaves also provided another weaving material. They were also a common marker tree.	
Leptospermum scoparium	Mānuka/ Tea tree	The bark, timber and leaves of Mānuka were all valuable resources, used in various forms for rongoā, as a fuel source and for building and implements.	
Corynocarpaceae laevigatus	Karaka	Groves of karaka were often planted at the establishment of a pā. Their orange berries were an important food source although they were not eaten fresh as the kernels of the fruit are highly poisonous. The fruit was steeped in water and baked allowing the fruit to be eaten. Leaves were also used in Rongoā	The establishment of karaka groves has been successfully used in modern urban design, however careful consideration of the implementation given the poisonous nature of the fruit must be used.
Sophora microphylla	Kōwhai	Flowering signalled for the planting of Kūmara- a relevant narrative as Taumutu was the furthest south that Kūmara was able to be cultivated, while Rolleston was an important area for growing root crops. Also used for rongoā, as a dye and valuable as timber for fence posts.	Kōwhai was suited to naturally occur in the Rolleston area. Its bright colour would allow it to be an attractive smaller specimen tree while helping to represent the narrative of the area's history.
Podocarpus totara	Tōtara	Timber valuable for building waka and whare. Berries also eaten and bark used in rongoā.	
Coprosma propinqua  Coprosma juniperina	Mikimiki/ Mingimingi	Kai- white, pink and blue berries can be eaten (Marlene, 2015)	Create a mahika/ mahinga kai garden where students can forage and learn what plants are edible.
Asplenium bulbiferum	Mauku / hen and chicken fern.	Kai- Young fronds can be eaten	As above.
Pseudopanax crassifolius	Horoeka / Lancewood	Tree stems were used as spears for hunting.	Incorporation in planting palette.

(Landcare Research/ Manaaki Whenua, 2015)

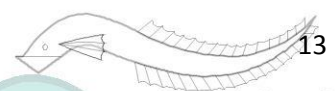
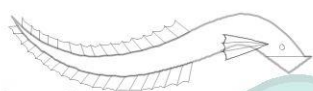
## 4.8 Mauri Tū – Sustainable Design

Kaitiakitanga and the protection and enhancement of the natural environment, particularly indigenous species, habitats and natural resources such as lakes and rivers is of fundamental importance to manawhenua. The Mahaanui Iwi Management Plan 2013 includes numerous policies and objectives to support sustainable design aimed at achieving kaitiakitanga. This includes considering the following aspects through educational institution design:

- Water supply and use
- Waste treatment and disposal
- Stormwater treatment and disposal
- Earthworks, landscaping and open space
- Cultural Landscapes – including wāhi tapu/taonga (cultural significant sites)

In general the rūnanga supports the use of technology and systems that reduce impacts on natural resources as well as those that can lead to the enhancement of natural resources. This includes:








- Low energy and water use appliances and fittings (including lighting, toilets, showers etc);
- Grey water recycling and rainwater collection (particularly for watering grass/gardens and re-use in toilets) as well as accredited wastewater treatment systems and land based disposal;
- Land based vegetated stormwater swales, raingardens, wetlands and retention basin devices that result on zero stormwater discharge off site and into local streams and that provide for multiple benefits, including educational opportunities;
- Solar passive design, insulation, double glazing as well as solar and wind energy generation;
- Recycling and composting facilities and low impact washing and cleaning products;
- Sediment and erosion control plans and accidental discovery protocols during construction; and
- The use of locally sourced and/or recycled materials that provide a connection to the landscape.





## 4.9 Te Aranga Māori Design Principles

The Te Aranga Māori Design principles developed by Ngā Aho (the national network of Māori design professionals) provides a useful framework for considering design ideas for educational institutions. The principles are shown below and are also used in the following section to structure recommendations for educational institutions to consider.

		Nga Hua / Outcome	Ahuatanga / Attributes	He Tauria / Application
TE ARANGA MĀORI DESIGN PRINCIPLES	<b>MANA</b> Rangatiratanga Authority 	The status of iwi and hapū as mana whenua is recognised and respected	<ul style="list-style-type: none"> <li>Recognises Te Tiriti o Waitangi / The Treaty of Waitangi and the Wai 262 Ko Aotearoa Tenei framework for Treaty Partnerships in 21st Century Aotearoa New Zealand as the basis for all relationships pertaining development</li> <li>Provides a platform for working relationships where mana whenua values, world views, tikanga, cultural narratives and visual identity can be appropriately expressed in the design environment</li> <li>High quality Treaty based relationships are fundamental to the application of the other Te Aranga principles</li> </ul>	<ul style="list-style-type: none"> <li>The development of high level Treaty based relationships with mana whenua is essential prior to finalising design approaches and will maximise the opportunities for design outcomes.</li> <li>Important to identify any primary mana whenua groups as well as wider mana whenua interests in any given development.</li> </ul>
	<b>WHAKAPAPA</b> Names & Naming 	Māori names are celebrated	<ul style="list-style-type: none"> <li>Recognises and celebrates the significance of mana whenua ancestral names</li> <li>Recognises ancestral names as entry points for exploring and honouring tūpuna, historical narratives and customary practises associated with development sites and their ability to enhance sense of place connections</li> </ul>	<ul style="list-style-type: none"> <li>Mana whenua consultation and research on the use of correct ancestral names, including macrons</li> <li>Recognition of traditional place names through signage and way-finding</li> <li>Use of appropriate names to inform design processes through careful attention to naming</li> </ul>
	<b>TOHU</b> The Wider Cultural Landscape 	Mana whenua significant sites and cultural landmarks are acknowledged	<ul style="list-style-type: none"> <li>Acknowledges a Māori world view of the wider significance of tohu / landmarks and their ability to inform the design of specific development sites</li> <li>Supports a process whereby significant sites can be identified, managed, protected and enhanced</li> <li>Celebrates local and wider unique cultural heritage and community characteristics that reinforce sense of place and identity</li> </ul>	<ul style="list-style-type: none"> <li>Recognition of tohu, including wāhi tapu, maunga, awa, puna, mahinga kai and ancestral kainga</li> <li>Allows visual connection to significant sites to be created, preserved and enhanced</li> <li>Wider cultural landmarks and associated narratives able to inform building / spatial orientation and general design responses</li> <li>Heritage trails, markers and interpretation boards</li> </ul>
	<b>TAIAO</b> The Natural Environment 	The natural environment is protected, restored and / or enhanced	<ul style="list-style-type: none"> <li>Sustains and enhances the natural environment</li> <li>Local flora and fauna which are familiar and significant to mana whenua are key natural landscape elements within urban and / or modified areas</li> <li>Natural environments are protected, restored or enhanced to levels where sustainable mana whenua harvesting is possible</li> </ul>	<ul style="list-style-type: none"> <li>Re-establishment of local biodiversity</li> <li>Creating and connecting ecological corridors</li> <li>Planting of appropriate indigenous flora in public places, strategies to encourage native planting in private spaces</li> <li>Selection of plant and tree species as seasonal markers and attractors of native bird life</li> <li>Establishment and management of traditional food and cultural resource areas allowing for active kaitiakitanga</li> </ul>
	<b>MAURI TU</b> Environmental Health 	Environmental health is protected, maintained and / or enhanced	<ul style="list-style-type: none"> <li>The wider development area and all elements and developments within the site are considered on the basis of protecting, maintaining or enhancing mauri</li> <li>The quality of wai, whenua, ngāhere and air are actively monitored</li> <li>Water, energy and material resources are conserved</li> <li>Community wellbeing is enhanced</li> </ul>	<ul style="list-style-type: none"> <li>Daylighting, restoration and planting of waterways</li> <li>Contaminated areas of soil are remediated</li> <li>Rainwater collection systems, grey-water recycling systems and passive solar design opportunities are explored in the design process</li> <li>Hard landscape and building materials which are locally sourced and of high cultural value to mana whenua are explored in the design process</li> </ul>
	<b>MAHI TOI</b> Creative Expression 	Iwi/hapū narratives are captured and expressed creatively and appropriately	<ul style="list-style-type: none"> <li>Ancestral names, local tohu and iwi narratives are creatively reinscribed into the design environment including: landscape; architecture; interior design and public art</li> <li>Iwi / hapū mandated design professionals and artists are appropriately engaged in such processes</li> </ul>	<ul style="list-style-type: none"> <li>Mana whenua assist in establishing design consortia which are equipped to translate iwi/hapū cultural narratives into the design environment</li> <li>Civic / shared landscapes are created to reflect local iwi/hapū identity and contribute to sense of place</li> <li>Iwi/hapū narratives are reinscribed in the environment through public art and design</li> </ul>
	<b>AHI KĀ</b> The Living Presence 	Iwi/hapū have a living and enduring presence and are secure and valued within their rohe	<ul style="list-style-type: none"> <li>Mana whenua live, work and play within their own rohe</li> <li>Acknowledges the post Treaty of Waitangi settlement environment where iwi living presences can include customary, cultural and commercial dimensions</li> <li>Living iwi/hapū presences and associated kaitiaki roles are resumed within urban areas</li> </ul>	<ul style="list-style-type: none"> <li>Access to natural resources (weaving species, mahinga kai, waterways, etc) facilitates, maintains and /or enhances mana whenua ahi kā and kaitiakitanga</li> <li>Civic/iwi joint venture developments ensure ahi kā and sense of place relationships are enhanced</li> <li>Iwi/private sector joint venture developments enhance employment and ahi kā relationships</li> </ul>

[http://www.aucklanddesignmanual.co.nz/design-thinking/maori-design/te\\_aranga\\_principles](http://www.aucklanddesignmanual.co.nz/design-thinking/maori-design/te_aranga_principles)

## 5. Whakamutunga / Conclusion

The Rolleston area is rich in cultural narrative and history which can be drawn upon as inspiration in creating an educational institution which is multicultural and in tune with its whakapapa.

Tauwharekakaho/ Rolleston and nearby pā at Nihototo where an important part of Ngai Tahu iwi and Ngāi Te Ruahikihiki Hapū's Mahika kai network.

Te Taumutu Rūnanga strongly encourage the incorporation of Te Ao Māori and tikanga into the educational institutions in their Takiwā. There are number of ways this can be done and the Rūnanga are willing to engage in specific consultation where necessary.

This following section provides recommendations for educational institutions to consider that will assist with the incorporation and integration of manawhenua cultural values within their educational institutions and communities.

### 5.1 Ngā Marohi / Recommendations

#### Mana - Engagement and Relationship with Manawhenua

- Te Taumutu Rūnanga have processes in place to allow for educational institutions to contact them where required. This can be done by contacting the Rūnanga office who will organise consultation with the Education Committee and/or coordinator.

#### Whakapapa - Identity, Names and Naming

- The use of Te Reo around the educational institution is strongly encouraged. As well as the use of general names given in table 1. The giving of specific names is a valuable tool for building educational institution identity and pride.
- For this Te Taumutu Rūnanga should be consulted to arrange gifting of names.
- It is important that names of tīpuna (ancestors) are not used in any naming.
- The incorporation of the whakapapa both of the area and of the educational institution/ learning environment is important to the educational institution identity and should be incorporated into all aspects of the educational institution wherever possible.
- Reference should be made to the legends and history of both the local tribe and hapū but also the whakapapa of the educational sector, the history of wānaka/wānanga and the pursuit of knowledge in the Māori culture.

#### Taiao - Environment

- Manaaki for the environment is highly valued by Ngāi Te Ruahikihiki. As kaitiaki for Te Waihora and its catchment, Te Taumutu Rūnanga greatly encourage maanaki whenua (care for the land).

A number of suggestion for this are made in 4.7 for site specific interactions. The Rūnanga also strongly encourage the educational institutions integration with projects such as Te Ara Kakariki to help install the concept of maanaki whenua in the students.

#### Mauri Tū - Sustainable Design (Facilities/Buildings/Landscaping/Energy/Water)

- The following Ngāi Tahu whakataukī encapsulates the tribe's view of the importance of sustainability and resource management:

Mō tātou, ā, mō kā uri ā muri ake nei - For us and our children after us



- In Te Ao Māori (the Māori world) all elements of the natural world contain mauri (life force). In the development of the educational institution it is important that suitable steps are made to help retain and where possible increase the mauri of the surroundings.
- This can be done through practical measures such as storm water treatment, restoration of planted areas, improvement of biodiversity, using locally sourced material etc.
- The Rūnanga encourages the educational institution to pursue sustainable and ecological design standards such as Greenstar.

#### **Mahi Toi - Creative Expression (via landscape and building/space design and artwork)**

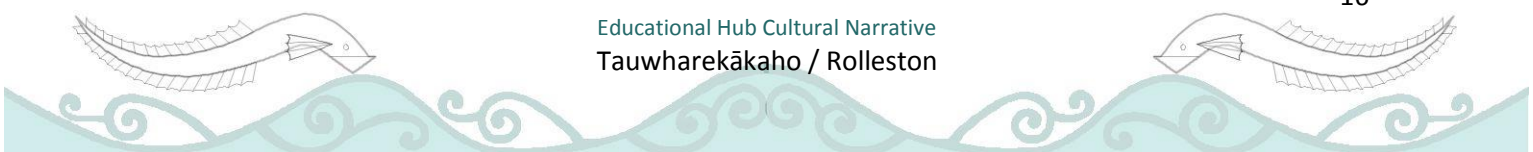
- The Rūnanga views the representation of narrative of the educational institution's whakapapa as key part of the educational institutions identity.
- The educational institution is encouraged to both incorporate forms of mahi toi into the built form of the educational institution and provide space and time for the students to continually engage in mahi toi practices.
- Suggestions for ways this could be done are listed in 4.6.

#### **Tohu - Cultural Landscape**

- To foster the creation of a multicultural learning environment it is important that the educational institution proudly display and integrate their different cultures into all aspects of the educational institution community.
- Having clear acknowledgment and integration of the educational institutions culture, whakapapa, and kaupapa helps to clearly direct the students through their learning experience and engagement with Te Ao Māori.

#### **Ahi Kaa - Living Presence**

- Ngāi Te Ruahikihiki take pride in the growth and learning of the tamariki in their rohe.
- They encourage an ongoing relationship between them and the educational institution and look forward to helping guide the educational institution's embracement of Te Ao Māori.



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## 7. Appendices

### Appendix 1: Indigenous Plants for the Rolleston Area

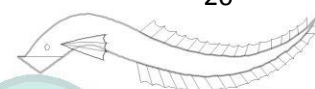
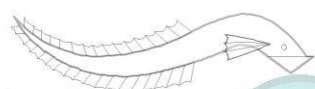
Species likely to have occurred in the Rolleston area prior to clearing by European settlers.

SCIENTIFIC NAME	COMMON NAME (Māori and English)
<b>TREES &amp; TALL SHRUBS</b>	
<i>Carpodetus serratus</i>	Putaputaweta/ marbleleaf
<i>Coprosma linariifolia</i>	Linear-leaved coprosma/ yellow-wood
<i>Coprosma robusta</i>	Karamu
<i>Cordyline australis</i>	Ti Kōuka/ Cabbage tree
<i>Dodonea viscosa</i>	Akeake
<i>Griselinia littoralis</i>	Kapuka, broadleaf
<i>Hoheria angustifolia</i>	Houhere/ Narrow-leaved Lacebark
<i>Kunzea ericoides</i>	Kanuka
<i>Leptospermum scoparium</i>	Manuka/ tea tree
<i>Lophomyrtus obcordata</i>	Rohutu/NZ Myrtle
<i>Melicytus micranthus</i>	Manakura/ Shrubby mahoe
<i>Melicytus ramiflorus</i>	Mahoe/whiteywood
<i>Myoporum laetum</i>	Ngāio
<i>Myrsine australis</i>	Mapau/ Red Mapau
<i>Olearia paniculata</i>	Akiraho/ Golden akeake
<i>Pennantia corymbosa</i>	Kaikomako/ Ducksfeet
<i>Pittosporum eugenioides</i>	Tarata/ Lemonwood
<i>Pittosporum tenuifolium</i>	Kohuhu/ Black matipo/Mapau/Tawhari
<i>Plagianthus regius</i>	Manatu/ Lowland ribbonwood
<i>Podocarpus totara</i>	Totara
<i>Prumnopitys taxifolia</i>	Matai/ Black pine
<i>Pseudopanax arboreus</i>	Whauwhaupaku/ Five finger
<i>Pseudopanax crassifolius</i>	Horoeka/Lancewood
<i>Sophora microphylla</i>	South Island Kowhai
<b>CLIMBERS &amp; VINES</b>	
<i>Clematis forsteri</i>	Yellow clematis
<i>Clematis quadribracteolata/ marata</i>	Clematis
<i>Parsonsia capsularis</i>	Kaiwhiria/ NZ Jasmine
<i>Parsonsia heterophylla</i>	Kaiwhiria/ NZ Jasmine
<i>Rubus schmidelioides</i>	Taramoa, narrow-leaved lawyer
<b>SCHRUBS &amp; SCRAMBLERS</b>	
<i>Calystegia tuguriorum</i>	Powhiwhi
<i>Carmichaelia australis</i>	Makamaka/ Nz Broom
<i>Clematis afoliata</i>	Leafless clematis
<i>Clematis quadribracteolata/marata</i>	clematis
<i>Coprosma acerosa</i>	Sand coprosma



Coprosma crassifolia	Thick leaved mikimiki
Coprosma intertexta	Open mikimiki
Coprosma propinqua	Mikimiki/ Mingimingi
Coprosma virescens	Green coprosma
Coriaria sarmentosa	Shrub Tutu
Corokia cotoneaster	Korokio
Discaria toumatou	Matagouri
Helichrysum lanceolatum	Niniaio
Leptecophylla juniperina	Prickly mingimingi
Leucopogon fasciculatus	Mingimingi
Melicytus aplinus	Porcupine Shrub
Muehlenbeckia astonii	Shrub pohuehue
Muehlenbeckia complexa	Scrambling pohuehue
Myrsine divaricata	Weeping mapou
Olearia adenocarpa	Canterbury shrub daisy
Ozothamnus leptophyllus (Cassinia)	Tauhinu/ Cottonwood
Pomaderris ericifolia	Tauhinu
Rubus squarrosus	Leafless lawyer
Sophora prostrata	Prostrate kowhai
Teucrium parvifolium	NZ shrub verbenas
GROUND COVER HERBS & GRASSES	
Acaena novae-zelandiae	Piripiri/Bidibidi
Dianella nigra	Turutu/ blue berry
Dichondra repens	Dichondra
Hypnum cupressiforme	Moss
Juncus distegus	Wiwi/ Tussock rush
Leucopogon fraseri	Patototara/ a dwarf heath
Libertia ixioides	Mikoikoi/ NZ iris
Microlaena stipoides	Meadow rice grass
Parietaria debilis	NZ pellitory
Stellaria parviflora	NZ stitchwort
Thuidium sparsum	Moss
Urtica incisa	Dwarf nettle
GROUND FERNS	
Asplenium flabellifolium	Necklace fern
Asplenium terrestre	Ground spleenwort
Blechnum penna-marina	Kiokio, little hard fern
Hypolepis ambigua	Rough pig fern
Pellaea rotundifolia	Tarawera/ Button fern
Microsorium pustulatus	Maratata, hounds tongue fern
Polystichum zelandica/richardii	Pikopiko/Tutoke/ Shield fern
Pteridium esculentum	Rahurahu/ bracken fern

(Lucas Associates, 2011)



## Appendix 2: Mahinga kai and taonga species associated with the Taumutu takiwā

Ika (fish)	
Māori name	English name
Tuna	Eel
Kanakana	Lamprey
Aua	Yellow eyed mullet
Īnaka	Adult whitebait
Mako	Shark, rig
Upokororo	Grayling
Kōkopu	Native trout
Mata	Juvenile whitebait
Pātiki totara	Yellow-belly flounder
Mohoa	Black flounder
Pātiki	Sand flounder
Nihomakā	Barracoutta
Pāraki	Smelt
Kākahi	Freshwater mussels
Waikōura	Freshwater crayfish
Manu(Birds)	
Māori name	English name
Pūtakitaki	Paradise duck
Pārere/ māunu	Grey duck
Pāpango	New Zealand Scaup
Pārera	Grey duck
Kā hua	Eggs
Karoro	Black backed gull
Kotuku	White heron
Ruru koukou	Morepork
Tarāpuka	Red billed gull
Toroa	Albatross
Pūkeko	Swamp hen
Whio	Blue duck
Kuruwhengi	Shoveller
Kaki anau	Swan
Kōau	Shag
Kereru	Wood pigeon
Matuku	Brown bittern
Kūaka	Bar-tailed godwit
Tarawhatu	Brown duck
Kā rakau (plants)	
Māori name	English name
Whiwhi/wewe	Reeds and sedges
Ti kouka	Cabbage tree
Rāupo	Bullrush
Rongoā	Medicinal plants
Harakeke	Flax
Aruhe/tauhinu	Fern root (bracken)
Tikumu	Mountain daisy
Pīngao	Sand sedge
Wārakirihi	Watercress
Kōkaho	Reeds
Toe toe	Sedge grass
Kumara	Sweet potatoe
Katote	Tree fern
Wi	Tussock grass



Marine mammals	
Māori name	English name
Kekeno/pakake	Fur seal
Parāoa	Sperm whale
Toharā	Right whale
Aihe	dolphin

(Te Taumutu Rūnanga , 2003)

