

MAORI PERSPECTIVES FRESHWATER STREAM HEALTH

RESOURCE 1.

The Cultural Health Index for Streams and Waterways: A tool for nationwide use.

Gail Tipa and Laurel Teirney, April 2006. Ministry of the Environment Report

1. The Significance of freshwater to Māori

- Water is the life-giving essence
- Freshwater resources represent the connection that Māori believe humans enjoy with the spiritual forces operating, in the environment.
- Protecting the integrity of valued freshwater resources, therefore, is an important aspect of the responsibilities of those Māori who are mandated as kaitiaki.

Water may be considered tapu or sacred because because of its properties: in relation to other water, tapu places, or objects, or because of its close association with the gods. Other water bodies may be accorded taonga value because of uses of the waterway, which unlike wai tapu, are not prohibited by tapu. (D. Crengle, 1997. Ministry for the environment)

- Values associated with specific freshwater resources include:
 - a. The role of particular freshwater resources in creation stories
 - b. The role of those freshwater resources in historical accounts
 - c. The proximity of settlements and/or historical sites, in or adjacent to, specific freshwater resources
 - d. The value of freshwater resources as a source of tribal identity as well as mahinga kai
 - e. The use of freshwater resources as access routes or transport courses, and
 - f. The continued capacity to be accessed, used and treasured by future generations(Ministry for the Environment 1997)
- The Māori worldview does not separate spiritual and intangible aspects from the non-spiritual practices of resource management

2. Indicators used by Māori to assess stream health

Freshwater environmental performance indicators developed by the Ministry were restricted to the waterway itself and the riparian zone – macroinvertebrate community index, temperature. Riparian condition, clarity, periphyton, occurrence of native fish, dissolved oxygen (percent saturation) and ammonia (mg/l)

- This limited approach concerned Ngāi Tahu
- Ngāi Tahu were invited to suggest their own indicators. **(Stage 1)**. Some of these indicators include: Place names, unpleasant odours, greasiness of water, presence of riffles/white water, sounds of winds in riparian vegetation, sounds of birds present, smell, flow of river visible, abundance and diversity of birdlife, health of fish found in the waterway, foam, oils and other human pollution.
- Development of the Cultural Health Index (CHI) resulted from **(Stage 2)** and represented the assessment of a mix of physical attributes of waterways and other values that Māori ascribe to freshwater.

- There are similarities but some fundamental differences between Māori and non-Māori perspectives.
e.g. Western science perspective drinkable water may carry some contaminants at low level not toxic to humans. Māori perspective – require drinking water to be protected from spiritual pollution which means certain discharges activities, regardless of the level of physical contamination, are prohibited.
- **Stage 3 – Implementation.** The Cultural Health Index allows whanau/hapu/iwi to monitor the health of a stream and can be confidently used by any iwi at sites in streams of any size or river type.

***‘A waterbody with a healthy mauri will sustain healthy ecosystems, support cultural uses (Including mahinga kai) and be a source of pride and identity to the people.’
(G.Tipa and L. Teirney, 2006)***

EXERCISE

Use your results from the Habitat Survey and Cultural Health Survey to assess the health of Coes Ford in March 2020. Use data to justify your response.

RESOURCE 2.

Model for identifying cultural indicators

Lorraine Dixon

<https://www.sciencelearn.org.nz/resources/438-model-for-identifying-cultural-indicators>

Cultural indicators.

Cultural indicators relate to changes that occur over time from a cultural perspective. For example, the decline of taonga river species is an indicator of a problem. Kaumātua talk about the quality and quantity of taonga kai such as tuna (eels) in the river when they were children. Tuna are no longer present in these numbers. This indicates a problem with the river (the environment). It also indicates that, as a consequence of the decline in river health, there could be further problems with the culture, society, economy and health and wellbeing of the people who depend on the river in all these areas. The river is part of their identity.

Once an indicator is identified, iwi consider what may have contributed to the problem, for example the decline of the species. Restorative steps can then be taken. Lorraine stresses that cultural indicators are important because scientific indicators don't reflect the cultural perspective. Hapū living in this area have done so for generations – they know their own backyard better than anyone else, and they have knowledge of the area that has been handed down the generations. They are also aware of the interconnections between the environment, the species living there and themselves and their lifestyle.

Cultural indicators can also be assessed whether restoration practices are working. For example, the return of taonga species is an indicator that the health and wellbeing of the river is improving.

Lorraine developed the Ake Ake (forever and ever) model as a means to identify cultural indicators and to explore river restoration to strengthen the cultural community.

Ake Ake -forever and ever.

- Researchers developed a model (Ake Ake, which means forever and ever) to help iwi identify cultural indicators – changes that occurred over time on and around a river.
- These changes are especially noticed by iwi because they have an effect on the way they live their lives.
- For example, food that iwi have relied on for centuries becomes scarce. This is a cultural indicator because it affects cultural practice, As an example, tuna (eels) are one of the foods that has become scarce, and tuna are one of the very important food for iwi.
- The loss of important mahinga kai (food from a certain area) meant that eople couldn't provide optimal manaaki to their visitors and provide their visitors with those special foods that they were renowned for in the past. This impacts on the marae, hapū and iwi.
- The model helps iwi think about the changes from the past and the current situation in terms of – environmental, economical, cultural, social and health and wellbeing of the people.
- Iwi are then encouraged to decide what they would like for the future of the river and for future generations who might live there.

Activities

1. Write to the Taumutu Marae who are the Kaitiaki of the Selwyn River/ Lake Ellesmere
2. Read the Taumutu publication and take brief notes on the work they are doing to restore the health of their freshwater streams and lake.
3. Ask the following questions:

- Describe the environment as it was when you were boy or your grandfather or great grandfather was young (between 1900-1970)
 - Were you well off? Describe how it was for your family economically. What jobs did your father have? Your great grandfather? Was food plentiful? Was food harvested from the environment? Did you trade food for others? If so what food and how was it transported?
 - Did you feel culturally connected? Was there cultural support? Was there strong tikanga? Values?
 - Did you get together socially? Were families living independently or did they meet often? Did people work together? Share housing? Share food?
 - What was Maori health and wellbeing like? Did people get sick? What were common illnesses? What was the mana of the people like? How were people physically, emotionally and mentally?
4. Since the 1970's what has happened. Ask the following questions:
- What has happened to the local environment (land, bush, river, animals and plants) since you were young (since about 1970). How may that have affected you?
 - What mana do you have now, if any? (from land settlements? Use of land for gardens? Food from the environment? Kaitiaki?) What values are associated with this area for you?
 - Do you feel culturally connected now? What cultural support is there?
 - Do you feel socially connected? Do you share food, work, housing? Or is it just mainly at gatherings that these things are shared?
 - What is the health and wellbeing of your family now? What illnesses do iwi suffer? How are they physically? Emotionally? Mentally? Do people feel they have mana?

Video's

Discussion

Teacher led – own experience – Kaikoura Coast, Aparima/Riverton, Titi Islands

Student led – Do we have a common vision? How can we make a difference? What actions can take to improve the health of freshwater streams in our local environment? How? could we support our local Marae?

RESOURCE 3.
The Life of a River.
A Maori Cultural View of Rivers.
Kei Merito.
Bay of Plenty Conservancy.
Department of Conservation.

<http://www.seakeepers-nz.com/RIVERS/riverh.html>

As a child, I lived with my grandparents by the Whakatane river.

My grandparents taught me how the Maori regarded and respected the river, they said that the river was protected by the Atua (God) and we humans had to seek God's permission through prayer before carrying out any activity such as swimming, fishing, etc.

As a result of the Atua's influence certain qualities were placed in the river and the Maori referred to these qualities as:

1. *Mauri* – or life giving principle. Each river has had its own mauri, and the mixing of water from two different sources such as two different rivers or water that contains or has contained human, animal, toxic, or industrial waste is dangerous and could affect the productivity of the river.
2. Mana - spiritual power and authority originating from the Atua. Permission to use the river had to be obtained through prayer.
3. Tapu – ceremonial purposes which have been placed on some part of the river by a tohunga or priest such as:
 - A death caused by drowning – rahui
 - Ceremonial purposes
 - The making of fish nets or building a canoe.

Failure to respect tapu (intentionally or unintentionally) results in trouble, sickness, or even death and the help of a tohunga or ritual expert is required. There were certain degrees of tapu and tapu was either temporary (in the case of rahui) or permanent tapu. Tapu could be lifted through the process of *whakanoa* (to make common).

My grandparents showed me places where taniwha or river guardians lived and in most cases these places were dangerous. Humans especially children were forbidden to swim or fish there.

The Maoris named rivers after events or persons, for example the river where we lived was called Whakatane river because the river mouth is by the Whakatane township. The naming of Whakatane occurred when the Mataatua waka (canoe) reached the shore from Hawaiki many centuries ago. When the waka made for shore, all the men left the waka to explore the new land and the women remained in the waka. In those days women were forbidden to carry out any manual task on the waka.

Unfortunately the waka was not secured properly and it began to drift out to sea with the outgoing tide. Wairaka, the daughter of the chief of the canoe realised that the waka was in danger of being swept onto some rocks, so she stood up and shouted "*Kia Whakatane au i ahau*" meaning "I will carry out the task given to man". The women grabbed the oars and rowed the waka back to safety and since then the area has been known as Whakatane,

My grandparents also told me that the Maori classified water into categories each based on spiritual and geographical features, The Maori word for water is *wai* and the following classification of water is offered:

- Wai-ora (pure water). This is water in its purest form. It is used in rituals to purify and sanctify and has power to give life, sustain wellbeing and counteract evil, Waiora also means health.
- Wai-maori (freshwater). This is referred to as ordinary water which runs free or unrestrained and it has no sacred associations.
- Wai-kino (polluted), The mauri of the water has been altered through pollution or corruption and has the potential to do harm to humans,

- Wai-mate (dead water). This class of water has lost its mauri and is dead. It is dangerous to humans because it can cause illness or misfortune. Geographically it refers to sluggish water, stagnant or back water. Some tribes refer to it as waikawa.
- Wai-tangi (grieving waters). Refers to a river or part of a river which through some mishap has caused death, much pain and grieving to the tribe.
- Wai-ariki (hot springs and curative waters). The term “ariki” means chief in English and they are referred to as the chiefs or patriarchs of all waters.

There are many rivers with names that begin with wai (water) e.g, Waikato (full flowing river), Wairakei (the place where pools were used as mirrors), and Wairarapa (the glistening waters).

My grandparents told me that Maori regarded the river like the human body, if it is not kept clean it will become sick and may lose its mauri and die,

Modern industrial and agricultural practices have used rivers as a way to dispose of wastes. This has harmed the mauri (life essence) of the water. Maori traditional knowledge and spirituality provides guidance on how we should view our waterways, how we can protect and heal the waters and ourselves through the principle of kaitiakitanga.

**Kaitiakitanga is caring for the whole of nature
with reverence for people and all of earth’s resources as
gifts from God to be treasured and safeguarded.**

EXERCISES

1. Find out the Maori name of a river near your school and its meaning. You may have to ask the kaumatua (respected elders) of the local Iwi. Your teacher may be able to help.
2. Find out if there are places sacred to Maori on that river which you would need to respect.
3. Is the river being polluted? If so, by whom and what can your school do to stop the pollution.
4. Ask the Kaumatua of the local Iwi about the cultural significance of the river.
5. **Your Study Site Coes Ford – Lower Selwyn River**
 - ◆ **Complete the above exercise for the Lower Selwyn river**
 - ◆ **Using the classification of water in this article how would you classify the water at Coes Ford?**