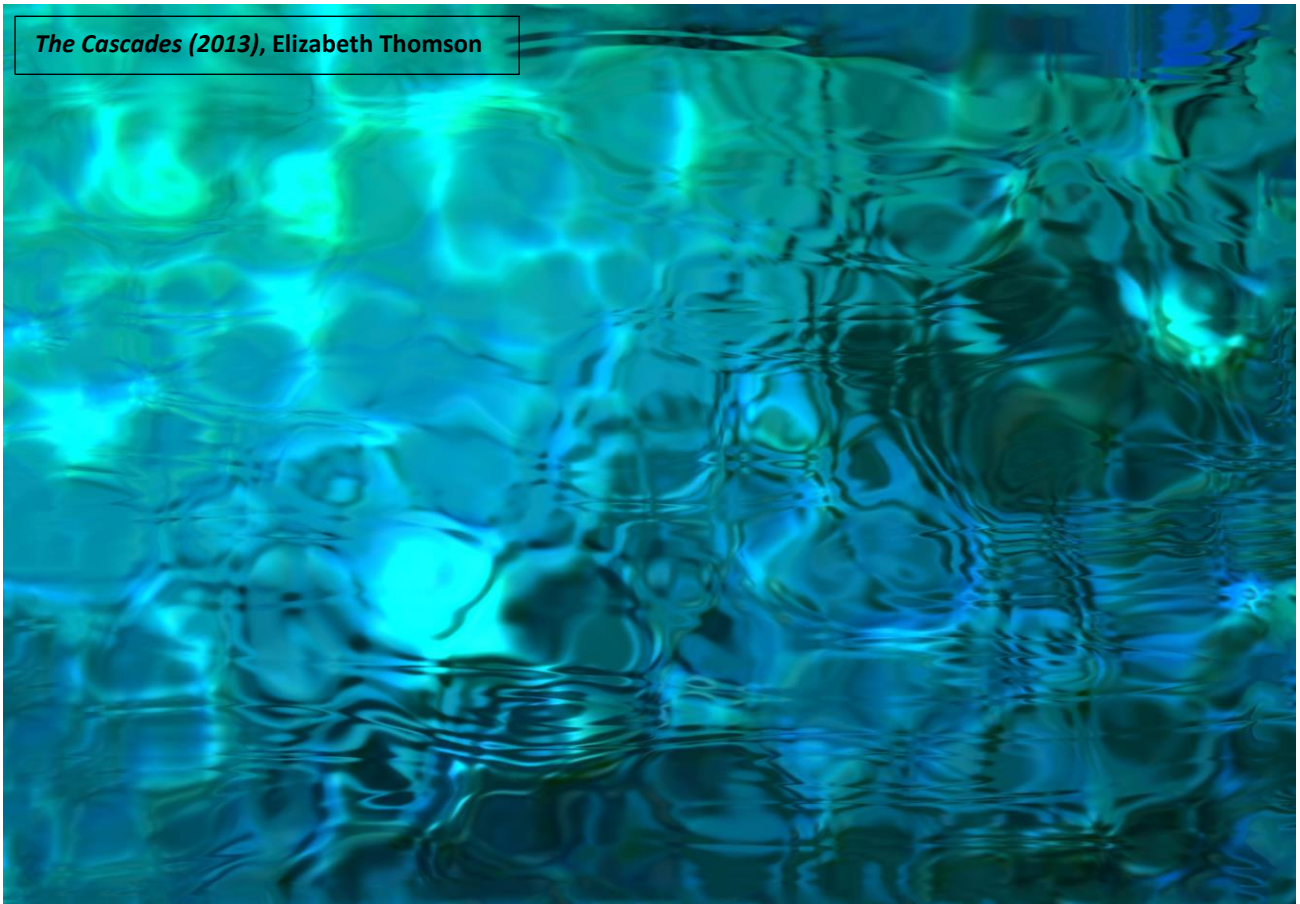


# WAI – The Water Project

8 June - 8 November 2020

*The Cascades (2013), Elizabeth Thomson*



In 2017, thirteen renowned Aotearoa New Zealand artists were invited to *be the water* and create artworks that explored the cultural, conceptual and imaginative qualities of water in the lakes and braided rivers of Canterbury. Their artworks are presented in the exhibition *WAI*. *WAI* seeks to challenge, inspire and address the declining state of our freshwater systems, not just in Canterbury but nation-wide. This resource looks at water as a taonga and uses selected artworks from the exhibition to hopefully inspire a sense of responsibility about our own local freshwater systems.

# WHAT IS FRESHWATER?

*Freshwater refers to water from rivers, lakes, reservoirs, underground streams, and other non-salt sources. Water is continually evaporated from the oceans and then returned to the land as ice, snow, or rain. Ice and snow melt from mountains to release freshwater to our rivers, streams, lakes, and to resupply underground streams.*

*New Zealand's freshwater habitats range from glaciers and seepages in the mountains, down to lowland rivers, streams, underground aquifers and wetlands that flow into estuaries.*

## The Braided Background

The Water Project was initiated in 2017 by the Ashburton Gallery.

The unique Canterbury landscape of braided rivers that the invited artists visited over five days became the focus of their artworks.



Photo credit: Upper Rangitata, Department of Conservation

... Braided, you tell me, I was  
upbraided, scrambled across

siphoned and run ragged by hydro-trader,  
flood-harvester, water bottler, irrigator

and resource manager. This riverbed is  
my marae, the long legs of wading birds

my acupuncture, these waters  
my only therapy....

(excerpt from Conversation with a Mid-Canterbury Braided River – Gregory O'Brien)

## What are braided rivers?

(Main Source: <https://ecan.govt.nz/get-involved/news-and-events/2019/braided-rivers-whats-the-story/> )

**Gravel-based braided river systems are found only in a few places around the world: Alaska, Canada, the Himalayan region and New Zealand** – in particular the South Island (DOC). New Zealand's braided rivers are networks of ever-changing channels weaving between islands of gravels. Canterbury's large braided rivers are unique river ecosystems. They provide an outstanding habitat for many rare birds, fish, plants and other species.

The entire Canterbury Plain was formed by gravel carried from the Southern Alps by braided rivers. The movement of gravel, and working and reworking of sediments to form islands, plains, river mouths and coastal beaches, all contribute to sustaining the mauri (life force) of that braided river system.

A key part of the braided rivers' makeup is driven by their multiple, shifting channels, varying flows and shingle layers, and their ability to move over the landscape.

Unfortunately braided rivers are under threat – from introduced species, habitat loss and the development of intensive agricultural practices and hydro-power schemes.

## Why are they so important?

### 1) **Biodiversity**

The braided rivers are an abundant supply of food and support many species that can't be found anywhere else. Braided rivers provide feeding and nesting for approximately 25 species of native birds, with the majority classified as threatened and facing increased pressures as the natural character of these dynamic systems change.

As river protection organisation BRaid says: "The biologically rich braided rivers are one of the last remaining strongholds of biodiversity in the Canterbury Plains, forming a vital ecological link from the mountains to the sea."

River margins have an important role in buffering aquatic ecosystems from effects of adjoining land use and provide habitat for indigenous flora and fauna in an otherwise highly modified landscape.

### 2) **Cultural Values**

Tangata whenua have strong links to water. Awa (rivers) are an important part of whakapapa (genealogy) and freshwater sustains taniwha and protects wāhi tapu (sacred places) and provides a habitat for species of cultural importance (e.g. tuna/eels).

Braided river-mouths in particular are culturally significant for Ngāi Tahu. The practice of kaitiakitanga (guardianship) applies to the ecological health of all waterways. The Waitaki River, as the ancestral river of Ngāi Tahu, is of paramount importance.

The Mahaanui Iwi Management Plan states: "Tangata whenua have a particular interest in the beds of lakes and rivers and their margins. River and lake beds and their margins may be significant for cultural use (eg, mahinga kai \* – customary food gathering). For Ngāi Tahu, the beds and margins of lakes and rivers are part of the waterbody, and not separate from it."

\*Mahinga kai – visit <https://youtu.be/lwQQReRreVQ>

### 3) **Recreation and tourism**

Braided rivers are also highly valuable for a wide range of recreational activities and an important tourist attraction. Fishing, boating and swimming are just some of the activities that people enjoy on the rivers. In addition, their beautiful appearance and iconic nature are a huge draw for tourists in the region.

Check out the work of such groups as Braided River Aid – ([braidedivers.org](http://braidedivers.org)) to see what river protection groups are doing to promote protection of these unique waterways.



*Confluence 1 (2018), Bruce Foster*



**The Artists** — Participating artists included: Ross Hemera, Peter Trevelyan, Brett Graham, Phil Dadson, Bing Dawe, Jenna Packer, Jacqui Colley, Dani Terrizzi, Euan Macleod, Elizabeth Thomson, Greg O’Brien, Bruce Foster and Kate Woods. The selected artists represent diverse cultural backgrounds and bring together work across different mediums such as video installation, painting, printmaking and sculpture. They spent a week onsite crossing South Canterbury and the Mackenzie Country observing, listening to iwi and experiencing the natural environment.



( [www.waterprojectnz.org](http://www.waterprojectnz.org) )

## Pātaka Education Programme

### Curriculum Links

**The Arts, Visual Arts:** Students will share ideas about how and why artworks are made and their purpose, value and context UA. Students will explore and describe ways in which meanings can be communicated and interpreted in artworks CI.

**Social Sciences:** Students will understand how people make choices to meet their needs and wants L2. Students will understand how people view and use places differently L3. Students will understand how people make decisions about access and use of resources L3.

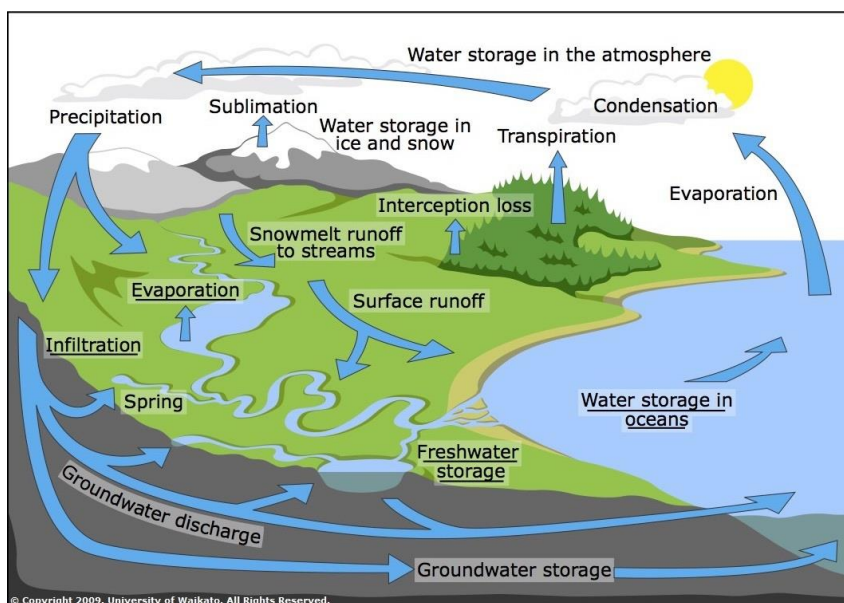
**Science: Planet Earth and Beyond** – Interacting systems L1-4. Students will describe how natural resources like water are changed and affected by natural events and human actions. Students will investigate the water cycle and its effect on climate, landforms and life. **Living World/Ecology:** Students will recognise that living things are suited to their particular habitat and explain how they respond to environmental changes both natural and man-made.

## Learning Outcomes

- 4) ARTWORKS ARE USED TO EXPLORE THE DIFFERENT WAYS TO DESCRIBE WATER AND REPRESENT WATER THROUGH SYMBOLS, TEXT, COLOURS, MOVEMENT AND SOUND.
- 5) APPRECIATE THAT WATER IS ONE OF THE EARTH'S MOST IMPORTANT NATURAL RESOURCES AND A TAONGA.
- 6) AWARENESS OF HOW WATER IS PART OF A WATER CYCLE FROM THE MOUNTAINS TO THE SEA.
- 7) ACKNOWLEDGE THAT WATER'S JOURNEY FROM THE MOUNTAINS TO THE SEA IS IMPACTED BY ENVIRONMENTAL CHANGES BOTH NATURAL AND MAN-MADE BECAUSE OF HOW WE USE IT.
- 8) UNDERSTAND THAT WATER AS A TAONGA IS OF HUGE IMPORTANCE TO IWI. ENHANCING THE MAURI (HEALTH AND WELLBEING) OF OUR WATERWAYS IS A PRIORITY AND CLOSELY RELATED TO THE PERSONAL HEALTH OF THE IWI.
- 9) KNOW THAT LESS THAN 3% OF EARTH'S WATER IS FRESH AND OKAY TO DRINK
- 10) BE ABLE TO IDENTIFY WHEN STREAMS, RIVERS AND LAKES ARE UNHEALTHY AND HOW THIS AFFECTS OUR ENVIRONMENT.

N.B. – The artists in the WAI exhibition are telling the stories of and depicting the changes in the Canterbury landscape as a result of the current use of water. Their works are based around Ngāi Tahu perspectives. PĀTAKA EDUCATION will also be using the Porirua catchment as a framework study about the impact of past man-made changes and plans for future restoration.

## The Water Cycle – Te Hurihanga Wai



[Science Learning Hub – Pokapū Akoranga Pūtaiao, University of Waikato, [www.sciencelearn.org.nz](http://www.sciencelearn.org.nz)]

The Earth has a finite amount of water. The water that is here today is the same water that has always been here and will be here in 20 or even 20 million years' time. So, if all living things use water, how is it that we don't use up all our water? The answer is that water is constantly recycled through the Earth's system through a process called the water cycle.

- The water cycle is a true cycle with no beginning or end
- The water cycle is powered by the sun
- The sun heats stored water (lakes, seas, rivers, swamps) which evaporates and rises with air currents
- The water vapour condenses as the air gets cooler and creates clouds
- The clouds fall, get heavy and water particles fall as precipitation - rain, hail or snow

# Te Ao Māori \*

Ko te wai te ora o ngā mea katoa ..... Water is the life giver of all things

Māori have a unique perspective on environmental issues and a profound relationship with the land that has developed over many generations, through connection, observation and experience. These expressions of place are linked to whakapapa through stories. **Pūrākau** (traditional creation narratives) underpin Māori notions of identity, character, and connection with the environment.

The Māori world view is all about maintaining a balance to the whole system and a natural order of things. In Māori world view, water is pivotal and sacred.

Life began with the separation of Ranginui and Papatūānuku by their children, and aspects of the water cycle are represented in the story. Rain (precipitation) is represented as ngā roimata ō Ranginui (the tears of Ranginui) while mist (water vapour) is explained as the sighs of Papatūānuku after separation. The tears created by Ranginui and the springs welling up from Papatūānuku created the waterways. The atua (children) were so heartbroken by their separation that they shed an immense quantity of tears as well, creating the vast waterways and oceans of the Te Whai Ao (the world of light – the world as we know it today). Waterways are considered the bloodlines and the veins of Papatūānuku, which carry the vital forces to replenish life. Wetlands are often referred to by Māori as the ‘kidneys of Papatūānuku’, and act as filters to remove contaminants and cleanse receiving waters. Water must pass through Papatūānuku/the earth to be cleansed and the mauri (essence or life force) restored. All water bodies have their own mauri which should not be altered or degraded.

In the creation, it was Tāne-Māhuta (atua of the forests and birds), who pushed his parents apart to create the sky and the land as we know them today. Tāwhirimātea (atua of the winds, clouds, rain, hail, snow and storms) opposed his brothers in the venture and followed his father Ranginui to the realm above. He took revenge on his brothers and swept down in fury to lash the trees of Tāne-Māhuta until, uprooted, they fell in disarray. Tāwhiri then turned his rage on Tangaroa (atua of the sea and fish) who sought refuge in the depths of the ocean. But as Tangaroa fled, his many grandchildren were confused, and while the fish made for the seas with him, the lizards and reptiles hid among rocks and the battered forests. It was then Tangaroa felt anger. His grandchildren had deserted him and were sheltering in the forests. So it is that to this day, the sea is eating into the land, slowly eroding it and hoping that in time the forests will fall and Tangaroa will be reunited with his offspring.

The personification of earth as a mother - Papatūānuku is significant - it is similar to a maternal bond, where the land and environment provide sustenance for its inhabitants. The resources or children of Papatūānuku do not belong to tangata (people), but rather tangata are one of the many children who belong to Papatūānuku. People, animals, birds and fish all harvest the bounties of Papatūānuku but do not own them (Environmental Protection Authority–Te Mana Rauhi Taiao). Rather, the living generations act as guardians of the land, like their tipuna (ancestors) before them.

Whakapapa (genealogy) demonstrates interconnectivity and the relationship between everything - placing Māori in an environmental context with flora, fauna and natural resources and expressing their kinship with the atua and the natural world.

\*Te Ao Māori and Water Sensitive Urban Design: Activating WSUD Aotearoa NZ, September 2019, Emily Afoa & Troy Brockbank

**Ngāi Tahu creation story** – This narrative differs from the more widely held account. Tangaroa was the first husband of Papatūānuku. After the still-birth of one of their children Tangaroa went away from Papa to bury the child in a special place but while he was away Ranginui moved in on Papatūānuku and they had children. When Tangaroa returned there was a fight - but although Tangaroa won, he decided to leave Papatūānuku with Ranginui. So Tangaroa has more importance with Ngāi Tahu of Te Wai Pounamu (the greenstone waterways).

Ngāi Tahu arrived in Te Wai Pounamu/South Island about 300 years ago and after the arrival of earlier iwi – Ngāti Māmoe and Waitaha (the regional name for Canterbury shortened down).



## KO WAI KOE – Who Are You?

For Ngāi Tahu this literally means - What water do you come from?

YOU HAVE TO KNOW WHERE YOUR WATER COMES FROM AND WHERE IT GOES IN ORDER TO UNDERSTAND AND MAKE THAT CONNECTION WITH THE ENVIRONMENT



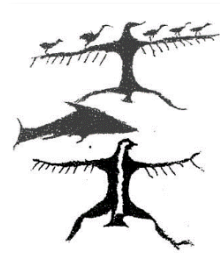
*Hue Wai (2019),*  
Ross Hemara – Ngāi Tahu,  
Waitaha, Ngāti Māmoē

Ngāi Tahu artist Ross Hemara feels a special connection with wai. Within the Ngāi Tahu rohe/region, there are five major waterways: the Waimakariri, the Rakaia, the Rangitātā, the Waitaki and the Mata-au (Clutha) Rivers. The five lengths of plastic piping are arrayed on the floor like five fingers of a hand. They are attached to anchoring stones just as the rivers are attached to the Southern Alps. The Hemara whānau lived around Omarama and, as a child, Ross would copy some of the ancient rock paintings in a cave while on eeling trips with his father along the Ahuriri River. That cave is now 90 metres underwater in Lake Benmore. The Waitaki River was dammed in the 1960s. Hemara speaks of these ancient ancestral drawings and motifs as his much beloved tipuna.

Check out: Te Ara – the  
Encyclopedia of New Zealand  
<https://teara.govt.nz/en/maori-rock-art-nga-toi-ana>



Gallery –  
Te Ana  
Ngāi Tahu  
Māori  
Rock Art





Elvers wriggling across rocks

### *Downstream Under Aoraki Tuna with Barrier (2018), Bing Dawe*

Bing Dawe is a keen fisherman so his work is often associated with the threats to the environment and endangered species. In this artwork, Dawe highlights the threat to our native tuna/eel species by the four major dams which have been built on the Waitaki River since 1928. At certain times of the year, mature tuna (anywhere between 20 to 60 to 100 years) migrate downstream from streams and lakes to the sea where they swim thousands of kilometres to spawn and die near Tonga. If their access downstream is blocked, they are unable to migrate and spawn to keep their species regenerating. When young eels/elvers (tunariki) return to Aotearoa they need to be able to migrate back upstream to our freshwater headwaters to grow into adults. Dams - stylised here as curved discs - stop both downstream and upstream migration and the native long-finned tuna is becoming endangered. Dawe dedicated this sculpture to the tireless work of John Wilkie, who transports mature tuna to below the dams and tunariki to above the dams on the Waitaki River. The use of positive and negative (space) forms in his sculpture is a kind of symbolism for the presence and absence of life and the threat of losing something altogether.

Tuna in our freshwater awa are an indicator of the health of the waterways. Tuna are a valued taonga and need clean clear water and a healthy habitat to survive and thrive. The degradation of freshwater is being reflected in the decline of our tuna numbers, especially the endemic long-finned tuna (only found in Aotearoa New Zealand).

#### Explore more:

A video from the University of Waikato about native tuna: [www.sciencelearn.org.nz/videos/1760-eels](http://www.sciencelearn.org.nz/videos/1760-eels)

A Stuff article on longfin eels: <http://www.stuff.co.nz/national/blogs/in-our-nature/8613492/showing-love-for-longfins>



## *Ode to the Preservation Of Southern Waterways*

Gregory O'Brien

According to Gregory O'Brien, this painting is about honouring water and how it sustains life. Within a strong pyramidal (mountain-like) structure we can see the flowing/fall of water down from the Southern Alps - through rocks, waterfalls and waterwheels to the urban scene at the bottom. What does this tell us about water? How has water been represented? - Where does it start? - Where does it go? - How has it been used? Many of O'Brien's artworks in the exhibition, and those worked in collaboration with artist Euan Macleod, deal with the man-made impediments to the flow of water. The water-wheel in this painting is a benevolent kind of intervention because it does not change the nature of water in anyway or take it elsewhere. But the circle motif, used in his other works, reference the huge green irrigated pasture circles now seen on the plains of Canterbury created by centre pivot irrigation schemes taking water from the braided rivers.



Collaborative artwork between Euan Macleod and Gregory O'Brien exploring the precarious balancing act between using water as a public resource (hydro-power schemes, irrigations schemes, gold dredging etc) and disrupting the quality and quantity (well-being/mauri) of water. These schemes have changed the natural course(s) of water as well as the surrounding environment and landscape.

In one of the paintings above (the lowest one) Macleod has painted the river as a ghostly figure beside a dredging factory. Around the time these works were created, a Treaty of Waitangi settlement, Te Awa Tupua (2017), gave the Whanganui River the rights of a 'legal person'.

**Ko au te awa, Ko te awa ko au (I am the river, the river is me)** – Whanganui River iwi expression.





*Conversation with a Mid-Canterbury Braided River*, Gregory O'Brien (2020)

O'Brien has brought a braided river to life. In the poem he personifies the river and tries to identify with and relate to the river as it makes its way from the mountains to the sea. Images of mountains, trees, raindrops, aerial views of braided rivers and the floodplains are patchworked with pivot irrigators, dam walls, power-poles and electric lights. These are great designs and graphics for students to identify and use as symbols of nature and industry, growth, progress and destruction.

Check out: <https://carcanetblog.blogspot.com/2020/04/gregory-obrien-painting-poem-during.html>





## A Pivotal Concern

### Pivot Irrigation Systems in South Canterbury (and Otago)

In the world of irrigation, pivot irrigation systems are the state-of-the-art way of growing crops to feed dairy cows.

Dozens of centre-pivot irrigation machines installed in the past couple of years are turning the dry plains of Southern Canterbury and Central Otago into lush meadows. Canterbury is now using two thirds of all New Zealand's irrigation intake. A single big corporate farm can use the same amount of water as a town over a year.



The spindly metal devices pump water from beneath the ground and send it along pipes, supported by metal trusses, to sprinkler heads. The whole thing pivots moving around slowly in a circle or half circle.

Central pivots were devised in the United States Midwest after World War 2 for growing corn, and the dairy boom brought them to New Zealand in large numbers. Before that Farmers relied on flood irrigation.

## OTHER CONCERNS



VOLUME      VALUE      VELOCITY

Corporate/big business phrases e.g. Fonterra

*After Petrus Van der Velden,*  
Euan Macleod & Gregory O'Brien

The 100% Pure, Clean and Green image of Aotearoa New Zealand is being tarnished by the fact that we can't drink, swim or eat food from most of our streams, lakes and rivers.

Throughout the nation we have warning signs along our waterways preventing us from enjoying and engaging with our local waterways. The signs in this painting are actual signs found along the river.

Euan Macleod has referenced paintings of the Otira Gorge by Van der Velden in the 1890s (which also impacted on Colin McCahon with a white river of light falling down through the dark oppressive Gorge).



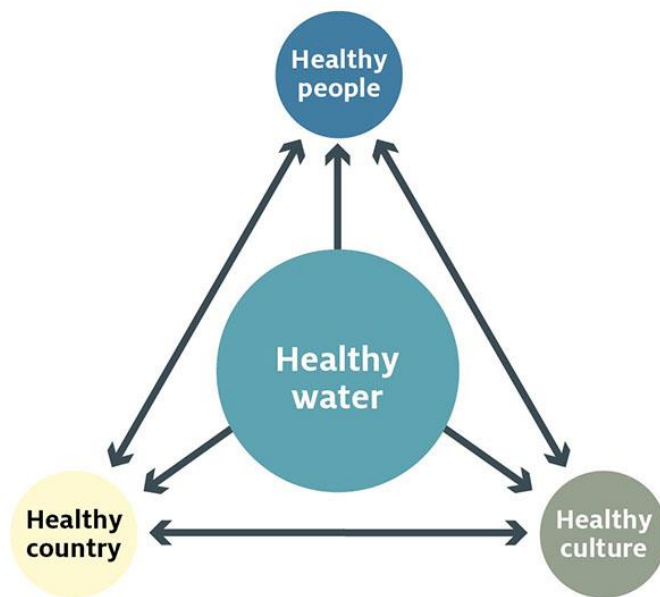


*Tiakina te whenua i tenei ra, hei oranga tangata mō ngā rā e heke mai nei*

**Caring for the land today, so that the land cares for us tomorrow**

**“...The science is clear – New Zealand’s fresh waters are under stress because of what we do in and around them.”**

Sir Peter Gluckman – Prime Minister’s Chief Science Advisor (April 2017)



### ***Kaitiakitanga***

- *exercising guardianship over all things special to Aotearoa NZ including the land, our flora and fauna, and our precious things, such as, culture, water, sea, knowledge, people and our character.*

Water is a taonga/treasure of huge importance. Enhancing the mauri (health and wellbeing) of our waterways is a priority. Māori often consider their personal health and the health, both spiritually and physically of their iwi to be closely linked to the health of their waterways.

**Ki uta ki tai** (mountains to sea) acknowledges connections between the atmosphere, surface water, groundwater, land use, water quality as well as the connections between people and the water.

## **The Porirua Catchment**

Every waterway is part of a catchment - within which there may be many different ways people are using the land. In the Porirua catchment there are both rural and urban uses of land with streams running down through both forested and unforested hills, through farmland and urban subdivisions and past industrial areas.

**Here in Porirua** - Urban and rural development in the Porirua catchment over the past 150 years has had a big impact on the health of the two estuaries that constitute Te Awarua-o-Porirua/Porirua Harbour. Urban expansion, stormwater/sewer infrastructure, forestry, rural intensification and roading continue to negatively affect the harbour ecology. We have many concerns about our waterways in the form of Sediment and silt (from erosion caused by deforestation, animal grazing and land development), Pollution (nutrients - nitrates and phosphates from farming, chemicals from urban areas, accidental cross contaminations of our water systems) and Ecological degradation (the loss of vegetation and habitats along our streams and rivers).

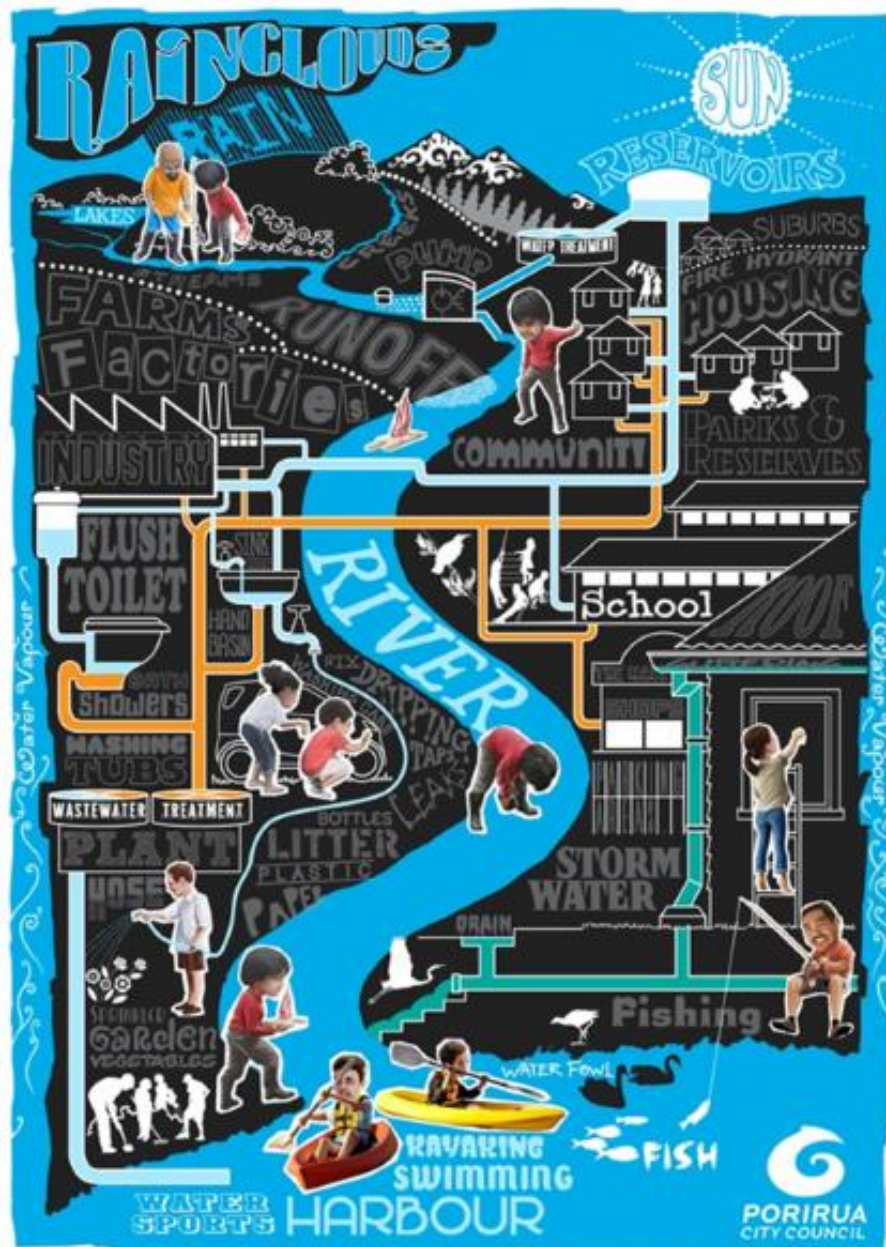
The Greater Wellington Regional Council and the Porirua City Council are working to monitor and manage these issues. They welcome the involvement of schools to learn about and help with some restoration (planting) work.





**The Porirua Harbour and catchment** is just under 200 km<sup>2</sup>, comprising a land area of about 185 km<sup>2</sup> and a harbour area of about 14 km<sup>2</sup>. Pāuatāhanui Inlet awa/streams are Pāuatāhanui; Horokiri, Kakaho, Browns, Ration Point Creek and Duck Creek. Onepoto Arm awa/streams are Porirua, Kenepuru, Mahinawa, Kahotea and Hukutai.

Porirua City Council : 'The diversity of fish populations appears to be declining. Sediment movement and pollutants adversely affect the water quality in both stream and harbour, and harm aquatic wildlife. The piping of streams and other development that restricts surface permeability, threaten natural values.' [PCC pdf : Your Stream Your Catchment]



Explore more:

DVD *Living Waters – The Urban Catchment* (9m45s), part of a series of 12 short documentaries about Te Awarua-o-Porirua/Porirua Harbour produced by the Pāuatāhanui Inlet Community Trust and Wild Thyme Films Ltd :

<http://www.livingwatersdoco.co.nz/episodes/8>

Radio New Zealand Audio – *FROM HILLS TO SEA PORIRUA* (28m13s)

From hills to the sea - a community thinks about freshwater - Our Changing World 1 November 2018

[https://www.rnz.co.nz/audio/player?audio\\_id=2018669022](https://www.rnz.co.nz/audio/player?audio_id=2018669022)





### Identify and Engage with your local/nearest waterway

Get in touch with groups like the [Mountains to Sea Organisation](#) to engage your students, both physically and outdoors, with the stream/river nearest your school [see video clip below].

<https://youtu.be/vBPEhq1jmzY>

Stream Study kits are also available from the Greater Wellington Regional Council for students to help assess the health of the stream by studying the stream water and life – fish and macroinvertebrates.

## CARE FOR YOUR LOCAL STREAM - IT CARES FOR YOU!

### Healthy/Unhealthy Indicators of life in our Waterways.

The number of fish and types of fish species are ways to assess the state of health of a stream.

The aquatic insects you find living in a stream can help to indicate the health of the stream. Some aquatic insects cannot tolerate any pollution (mayflies), whereas snails can live in quite polluted streams.

**Riparian Vegetation** – A lack of vegetation along the edges/margins of a stream can impact on stream health. Planting vegetation/plants helps to prevent sediment going into the water; provides shelter, shade (to help keep the water cool) and produce and release oxygen (through the leaves).

**Water Quality** – Sometimes it is easy to see whether stream water is clear or not. Discoloured water may be polluted with films, scums and sediments.

**Flow of Water** – Healthy streams need pools, runs, riffles and rapids to provide different habitats for stream life and helps to get oxygen into the water.



Banded kokopu – a good sign in any stream.  
Tuna – an even better sign!

## Pre & post visit ideas

- **Google** [www.thewaterprojectnz.org/thewaterproject/](http://www.thewaterprojectnz.org/thewaterproject/) and learn more about the artists and their year-long project.
- **Find out** what a catchment is and where your catchment area is located on a map
- **Find out about** and locate your school's nearest stream. Are there any stories or legends about your local stream?
- **Discover** where your local stream comes from and where it starts (its headwaters)
- **Experience** your local stream by visiting it and looking closely to see what is living in and around the water
- **Collect** a sample of the water from your local stream in a lidded container/bottle (about 300mls). How clear does it look? What other tests can you do with it?
- **Look up** what stormwater and wastewater networks are
- **Discuss** the importance of fresh water and the different ways people use it and can get it
- **Investigate** the water cycle from a science perspective and mātauranga Māori
- **Contact** your local Council or Wellington Water and find out where water is stored in your area. Are there people able to come and talk to your class from these organisations?
- **Locate** where Canterbury is and some facts about the braided rivers there
- **Talk** about how we can work together to become water heroes

## RESOURCES AND USEFUL WEBSITES

<https://www.gw.govt.nz/stream-health-assessment-kits-for-schools/>

A Stream Health Assessment Kit can be borrowed from the Greater Wellington Regional Council and usually includes: scoop nets, magnifying lenses, plastic trays and containers, ID charts, thermometer, PH stick, clarity tubes.

<https://waicare.org.nz/Resources/forteachers.aspx>

Resource unit for teachers based around water monitoring

<https://www.doc.govt.nz/globalassets/documents/getting-involved/students-and-teachers/themes/wet-feet/wet-feet.pdf>

A Teaching Resource, Wet-feet Investigating Fresh Water

<https://www.doc.govt.nz/globalassets/documents/getting-involved/students-and-teachers/habitat-heroes/habitat-heroes-education-resource-streams.pdf>

Explore Your Local Stream Resource by Dept of Conservation

<http://www.gw.govt.nz/take-action-for-water/>

Resource developed by the Greater Wellington Regional Council for Teachers which focuses on water catchments and freshwater stream ecosystems

<https://poriruaharbourtrust.org.nz/catchment/>

Maps and information about the Porirua Catchment

<https://www.livingwatersdoco.co.nz>

DVD *Living Waters* - Tiakina Ngā Taonga/Protect the Treasure

A series of 12 short documentaries about the unique ecology, diversity and beauty of Te Awarua-o-Porirua/Porirua Harbour - [produced in 2011 by the Pāuatāhanui Inlet Community Trust and Wild Thyme Films Ltd]

<http://www.mountaintoseawellington.org>

Creating young kaitiaki for our rivers, harbours and coasts. Check out their fresh water education programmes.