

# WAKAPUAKA FIELD GUIDE

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**BELONGS TO**

**Healthy River - Healthy Community**

A watercolor illustration of a landscape. In the foreground, a river flows from the bottom left towards the right, with blue and green washes representing water and reflections. The middle ground is dominated by a large, rounded hill or mound of earth, rendered in various shades of green and brown, suggesting grass and soil. To the right of the hill, there are several tall, dark green trees with dense foliage. The background is a soft, pale green wash, creating a sense of distance and atmosphere. The overall style is soft and painterly, with visible brushstrokes and blended colors.

***Whatungarongaro te tangata toitū te whenua***  
***As man disappears from sight, the land remains***

## *Te Tai Tapu ki uta ki tai*

## Introduction

This field guide is a project to encourage you to trace your own path along the waterway. The field guide has been produced by the Healthy Streams Project in partnership with Ngāti Tama.

The booklet is a starter for finding different patterns in the environment, river systems, leaf veins, insect wings and bird flight paths. It invites you to look at the textures in the landscapes, plants and animals you encounter. The pages are designed for you to discover stories and make new ones to share.

### Things to take with you

A container with a good seal (for your picnic)  
Pen, pencil or crayons ~ whatever you like to draw with  
An extra washable bag to collect any rubbish you find

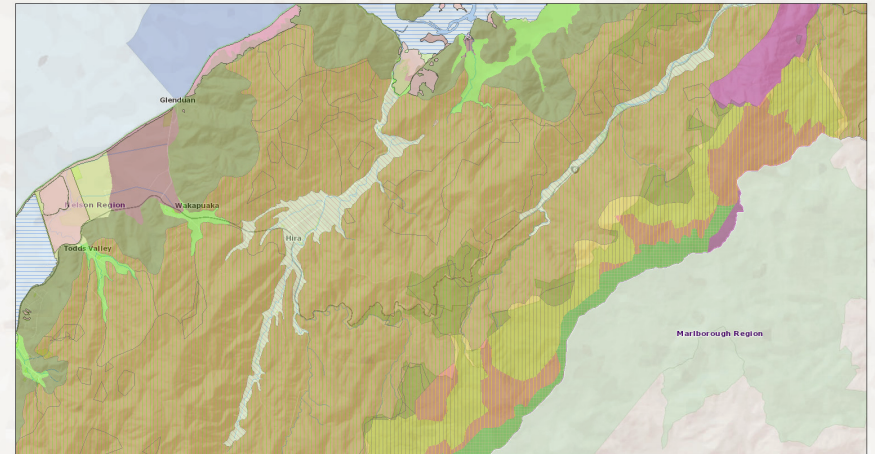
Bring all your senses and remember 'take only pictures and leave only footprints'

# Mai i te kahui maunga ki Tangaroa

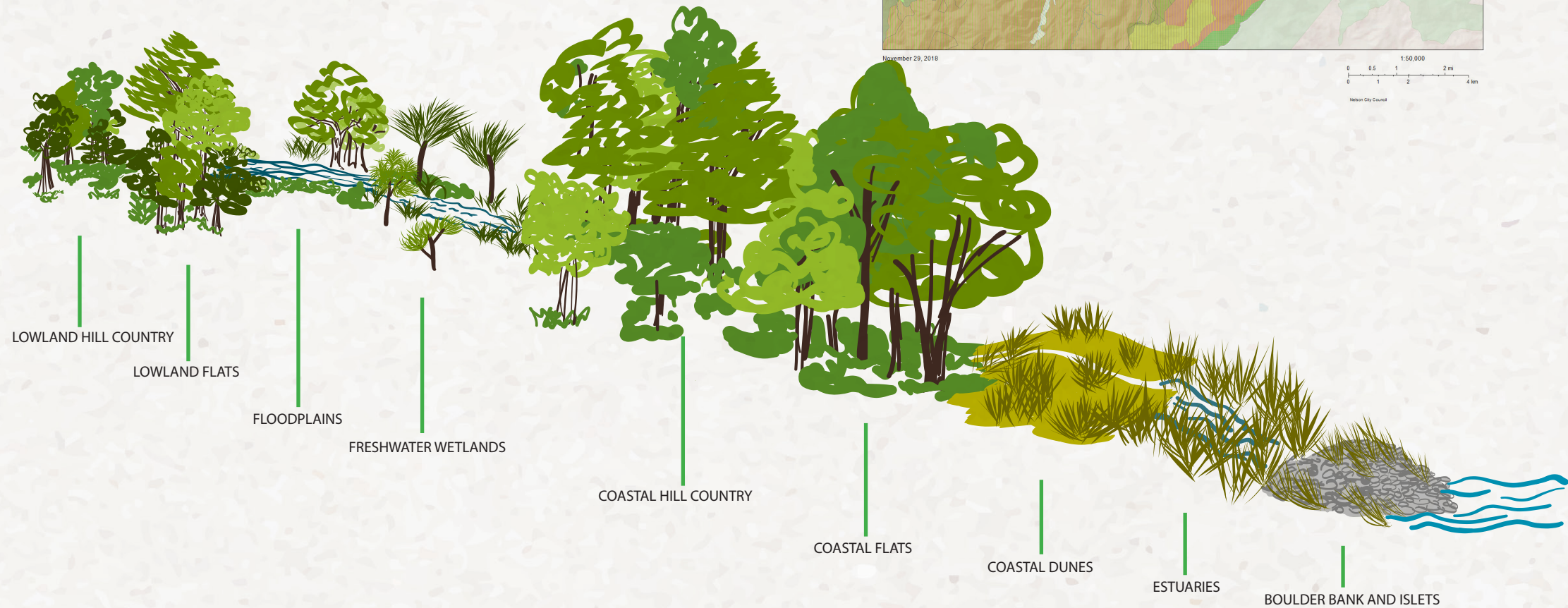
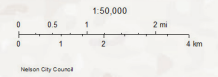
# From the mountains to the ocean

## Ecosystems

- WF3, Tawa, titoki, podocarp forest
- MF22-2, Kamahi, rimu, hard beech, tawa forest
- WF14-1, Kamahi, tawa, podocarp, hard beech forest
- WF8, Kahikatea, pukatea forest
- SA2-1, Seagrass, mudflats
- CL2, Ngaio, taupata treeland/herbfield/rockland
- MF7-4, Tawa, kamahi, podocarp forest



November 29, 2018



## Ika / Fish

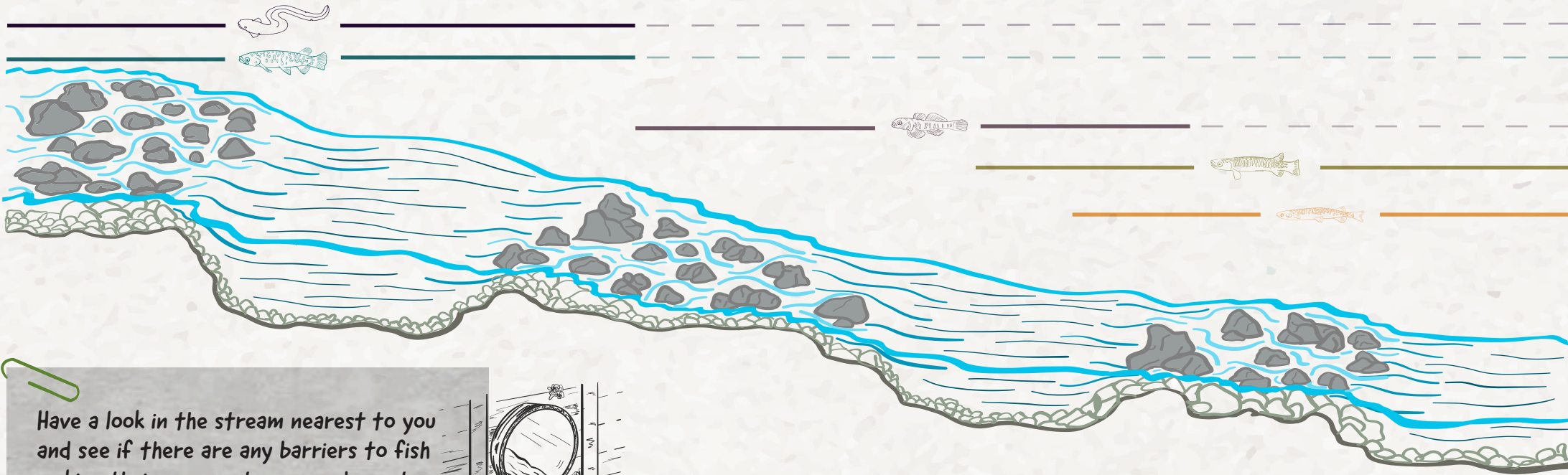
There are many types of bullies, check the Freshwater Fish guide to be sure, but you might notice the Upland Bully has an upturned nose.

- Inanga 
- Kōkopu 
- Bully 
- Kōaro 
- Eel Tuna 

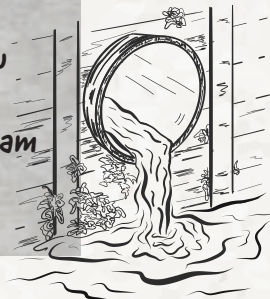





This awa also has Brown Trout which aside from their recreational interest are good indicator species as they don't like sediment or poor water quality.

Galaxiids are named for their sparkly starlike appearance. There are five species we call whitebait – they include Kōaro, Inanga and three types of Kōkopu (they vary from threatened to endangered all are declining).



Have a look in the stream nearest to you and see if there are any barriers to fish making their way upstream or downstream – let Council know if you find any –



-  Riffle is shallow and broken around cobbles and boulders
-  Pool has depth and slow flow
-  Run smooth flowing connections between riffles and pools

## How to look at plants

Look carefully at the shape of the leaves and the edge of the leaf. Is the underside different from the top and how do they attach to the branch (are they opposite or alternate?) and what is the bark like?



### Pukatea

Pukatea is one of the forest giants, a large subtropical tree that you can see down by Paremata flats. It grows in swampy areas, has buttresses to help support it and some of its roots breathe air above ground. Pukatea has male and female flowers on the same tree, its seeds are wind dispersed and its bark can provide pain relief.

## What is your favourite tree?

Make an impression of some interesting bark by holding the paper against it and rubbing over it with your pencil or crayon.



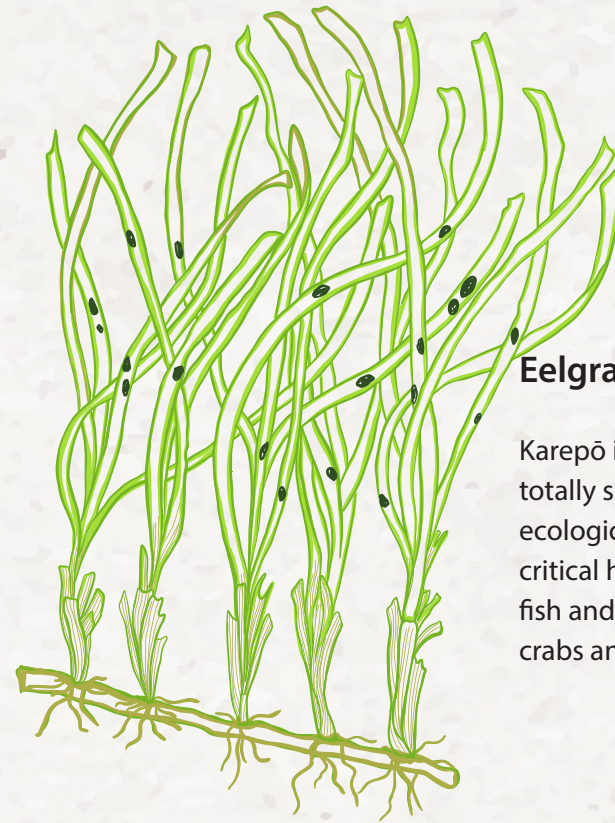
### Raukawa

The Raukawa is associated with a love story especially because of its beautiful scent. It has different leaves as a young plant to that of the adult and the seedling prefers to start off on the trunk of a tree fern. Raukawa is under threat from deer, goats and possums.

## Harakeke

Found from the mountains to the sea; this plant is a taonga (treasure) because every part of it can be used, for everything from construction and containment to adornment, health and food.

Often called flax, Harakeke is really a lily, the flowers are specially shaped to be pollinated by birds.



## Eelgrass / Karepō

Karepō is the only flowering plant that is totally submerged at every tide. It is an ecologically important species forming critical habitat and foraging areas for fish and invertebrates (juvenile flounder, crabs and cockles).

## Pīngao

A once common plant, Pīngao is found along active sand dunes. Pīngao is highly prized by weavers for the beautiful colour and is the subject of several stories of the boundaries between land and sea.



**Great if you can find the Dobsonfly**



**Archichauliode Dobsonfly - Ngaro parirau**  
 An endemic taonga species here in Aotearoa. They curl up in a ball and play dead when threatened. Often described as looking like a centipede, it has only 6 legs at forefront, the rest are gills. 7/10

**but even better if you find the stenoperla (large green stone-fly)**

**Stenoperla Stonefly (Large Green) - Ngarongaro wai nunui**  
 The highest scoring indicator species, only present where conditions are A grade water quality. These guys are endemic to Aotearoa and crawl rather than swim. Look for these handsome specimens in fast flowing, clear forested streams, where urban impacts like stormwater are not an issue. 10/10



**Ameletopsis Mayfly Piriwai**  
 Only found in the southern hemisphere, and the only carnivorous mayfly in existence! The head appears similar to a human skull. These pirates of the awa stalk their prey, hiding behind rocks waiting to strike. The adult is a bright yellow. 8-10/10

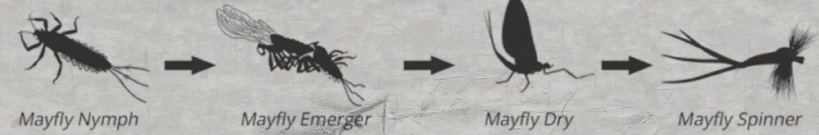


**Macro - Invertebrates**

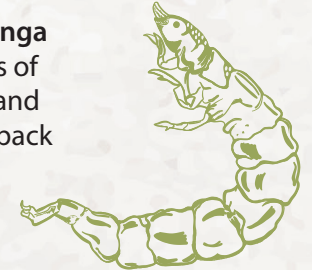
They tell us about water quality; in cold, clear, flowing water in good condition you may find Mayflies! Look under a few rocks and see what is there (don't forget to put the rocks back).



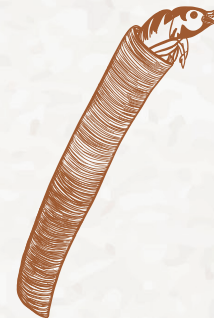
**Mayfly life cycle**



**Hydrobiosis Caddis (Uncased) Ngaro waiwaianga**  
 Identify this bug by the round segmented parts of the body. On close observation note the head and what appears to be a tail, which is actually the back legs known as pro-legs. 5/10

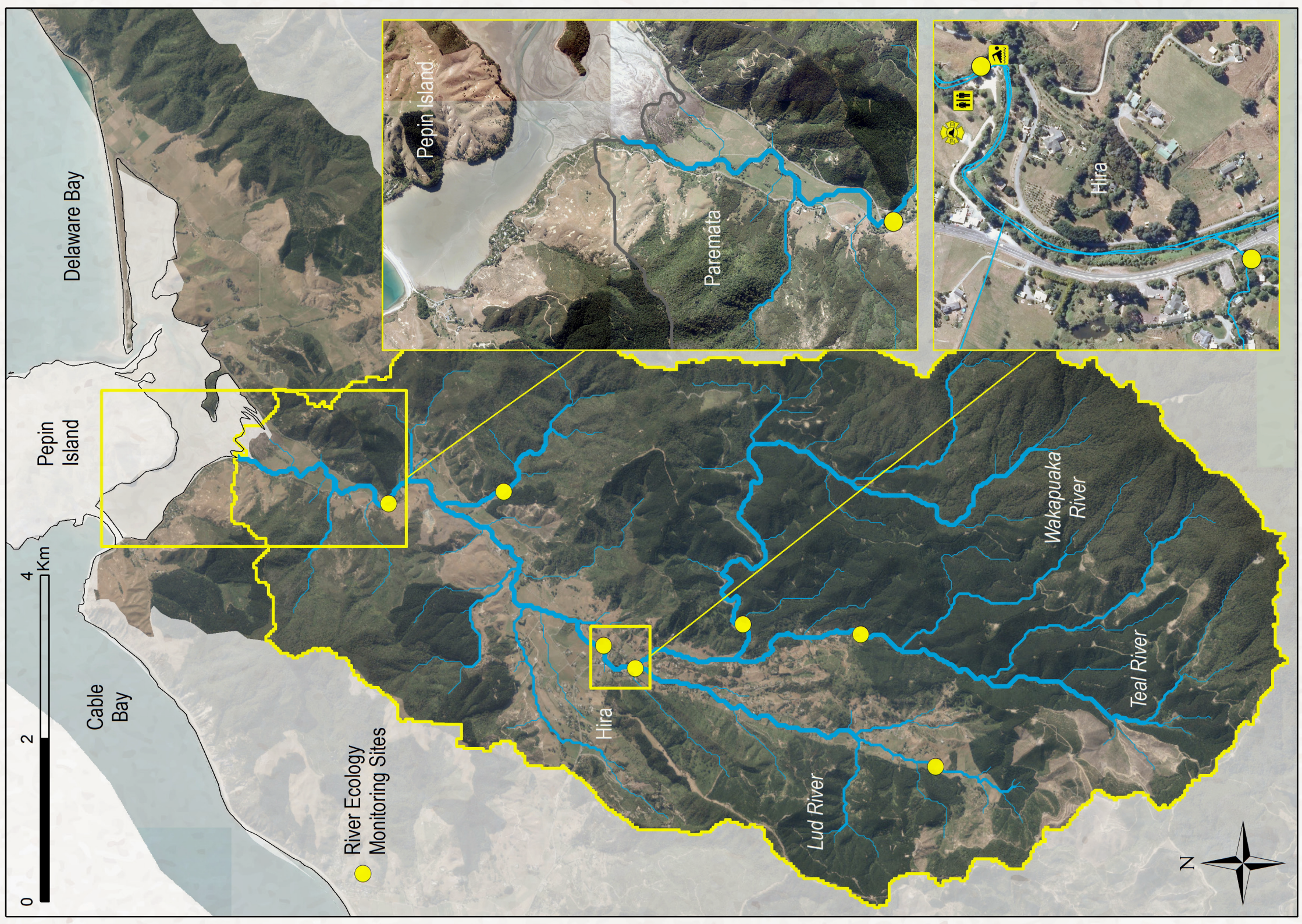


**Olinga Caddis (Cased) - Ngaro pū**  
 One of 260 types of caddis found in NZ! The cased caddis consists of a variety of caterpillar like critters that form a protective case around their soft body. Many use fine granules of mineral or plant bits to acquire this protection but the Olinga secretes a glue-like fluid that forms a smooth case. 9/10



NAME	SPECIES	INGOA MĀORI	SENSITIVITY SCORE
Stonefly (Large Green)	Stenoperla	Ngarongaro wai nunui	10/10
Dobsonfly	Archichauliode	Ngaro parirau	7/10
Mayfly	Ameletopsis	Piriwai	8-10/10
Caddis (Cased)	Olinga	Ngaro pū	9/10
Caddis (Uncased)	Hydrobiosis	Ngaro waiwai anga	5/10





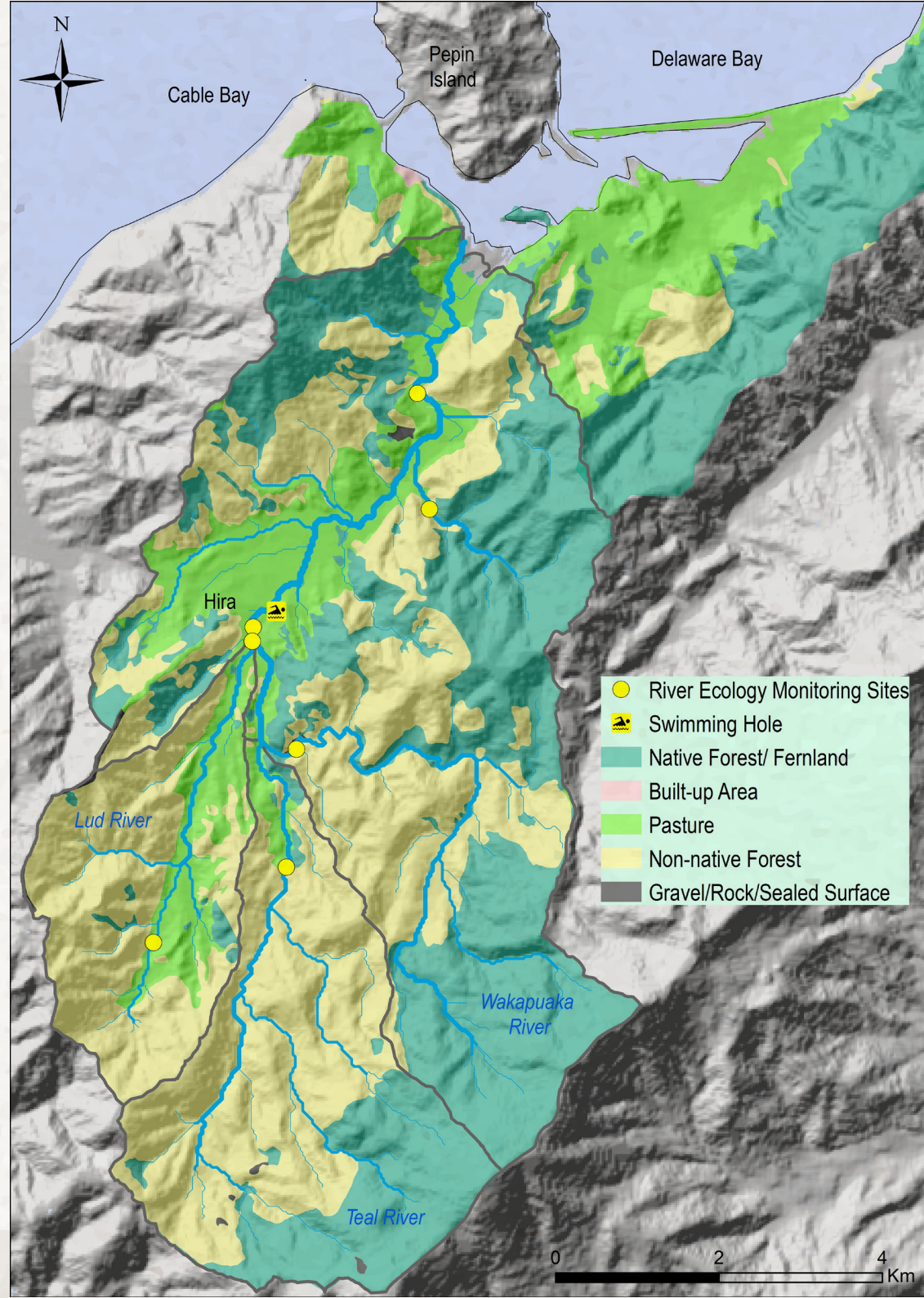
YOUR MAP KEYS

YOUR OWN MAP LEGEND

Blank green area for map keys.

Blank lined area for your own map legend.

Map Legends are a group of symbols to describe important features on the map. Create some symbols of things important to you about your awa. Create your own legend of Wakapuaka and tributaries.

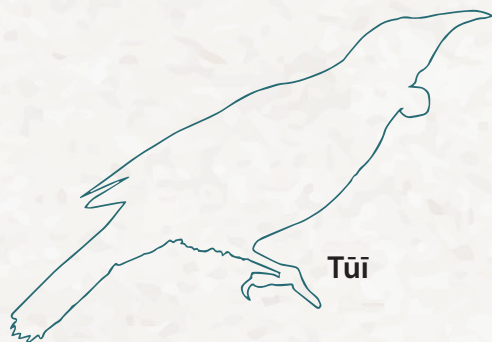


## Manu / Birds

Take part in the Great Kererū Count  
– [www.greatkererucount.nz](http://www.greatkererucount.nz) –  
every September  
(and plant trees birds love).



Kererū



Tūi



kōtare

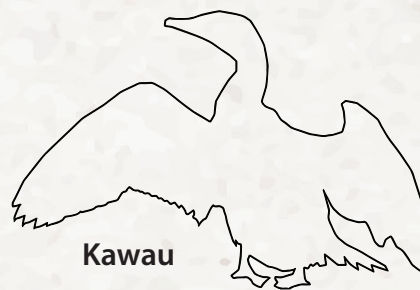


Korimako

## Manu Moana / Seabirds

Regular visitors to the estuary and shoreline areas include species that were important tohu (signs) for the early navigators.

It is important to remember to keep dogs on leads and try not to stress or disturb birds when they are nesting (between October and May).



Kawau



Karoro



Tōrea



Matuku

Use the excellent New Zealand Birds Online for bird identification.  
[www.nzbirdsonline.org.nz](http://www.nzbirdsonline.org.nz)

## Places to listen

Check the legend on the map to find where you can access the waterway and find a spot to experience the water and surrounds.

Look at the texture of the water where you are; draw lines to describe how it flows. What does it sound like?

What can you smell?

Make a list of all the sounds you hear  
Check [www.whatbird.co.nz](http://www.whatbird.co.nz)

Remember to take  
away everything you  
brought with you

## Write your own story of the waterway

### Human Stories

There have been many people here before us, you may have heard of some of them. Some have left lasting legacies and their children, grand and great, great grandchildren still live in the area.

Huria Matenga

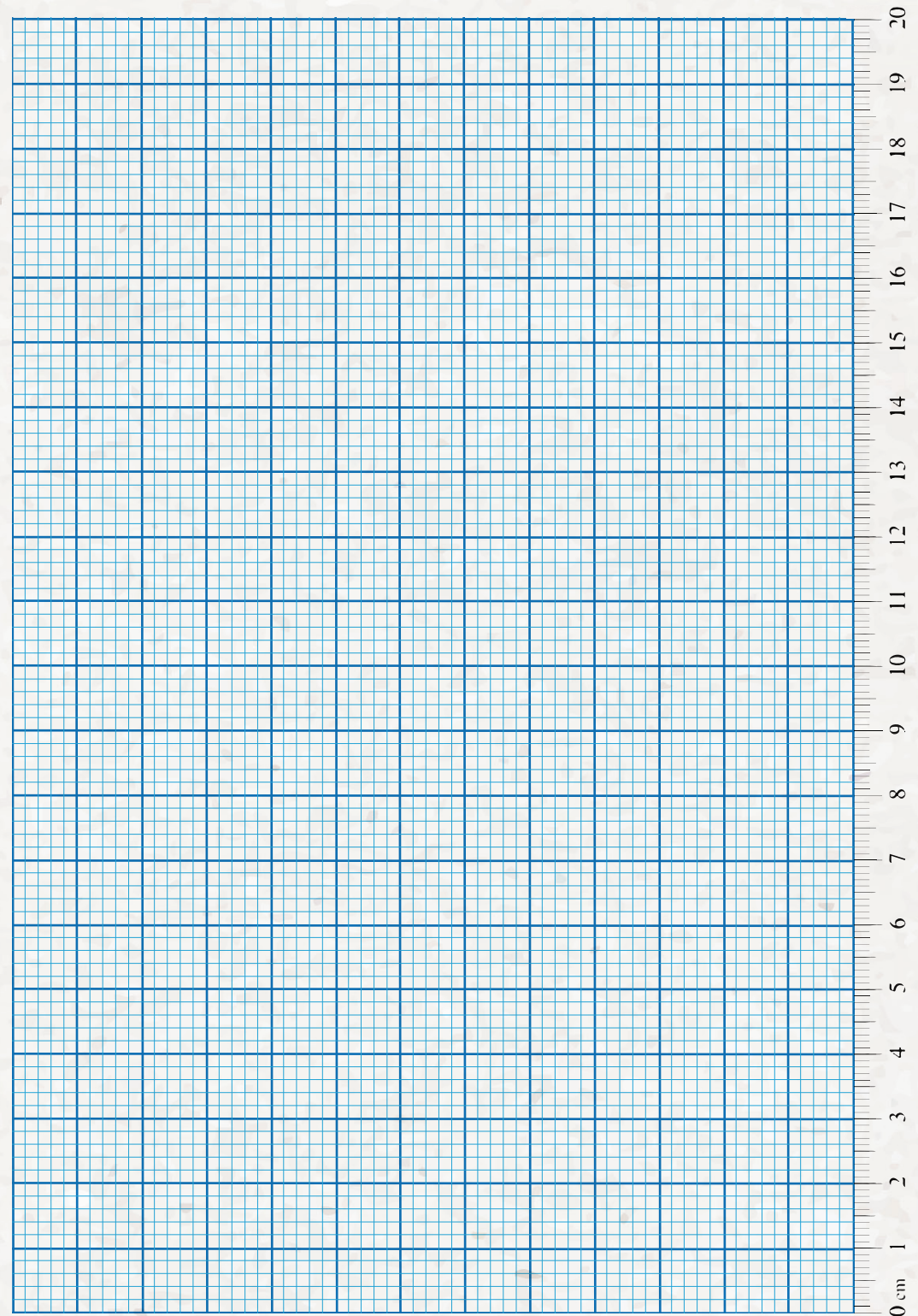


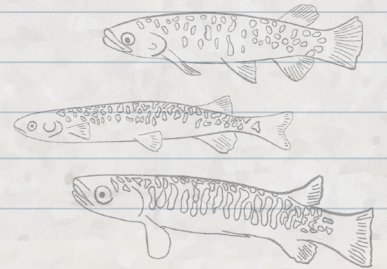
## Blue Print

Record your plans to act in a way that will improve the waterway for those who come along after you.

### Some suggested actions

- Try to help minimise rubbish to landfill
- Consider our precious water resources (could you start collecting rainwater?), try using dishes water in the garden.





## Glossary

**Whakapapa** – Ancestral connections, inter-related web of life

**Papa** – Ground, floor

**Rangi** – Sky, heaven, day

**Whenua** - Land

**Tangata** - People

**Whakarongo** – Listen

**Titiro** – Look/observe

**Manu** – Bird

**Ika** – Fish

**Ngahere** – Forest/bush

**Taiao** - Environment

**Harakeke** – Phormium tenax/flax

**Pua** - To bloom, produce flowers

**Rongoā** – Healing methods and substances, apply medicines, to treat

**Rakau** – Tree, wood, stick

**Rau** – Leaf

**Awa** – River, creek, stream

## NGĀ ATUA – Supernatural Kaitiaki/Guardians

<b>Papatūānuku</b>	Earth Mother and wife of Ranginui
<b>Ranginui</b>	Sky Father
<b>Tāne Mahuta</b>	Atua of forests, trees, wvegetation and associated environment
<b>Tāwhiri Mātea</b>	Atua of wind, storms, powerful weather events
<b>Tūmatauenga</b>	Atua of War, Man
<b>Tangaroa/Hinemoana</b>	Atua of Ocean, all waters
<b>Rūaumoko</b>	Atua of earthquakes, youngest unborn child of Rangi & Papa
<b>Haumia-tiketike</b>	Atua of uncultivated foods (Mahinga Kai)
<b>Rongo-mā-Tāne</b>	Atua of kumara and cultivated foods

\* (Reference) <https://maoridictionary.co.nz>

## How to help?

Check out Healthy Streams for local activities and opportunities help take care of our waterways. Wakapuaka Bursting with Life area under Healthy Streams has information specific to this awa.

[www.healthystreams.nz](http://www.healthystreams.nz)

Lots of great information can be found at;  
<http://www.nelson.govt.nz/environment/nelson-nature/community/volunteers/>

Wakapuaka River Group  
Contact: Jim Sinner - [jim.sinner548@gmail.com](mailto:jim.sinner548@gmail.com)

Healthy Streams [www.healthystreams.nz](http://www.healthystreams.nz)  
Wakapuaka Bursting with Life

Paremata Flats  
<http://www.paremataflats.co.nz/>

**Hotline (for spills or discharge) 0800 No Pollute**

**If you see a bird or any other native animal entangled in rubbish, or in unnatural danger, please call the DOC hotline: 0800 362 468**

## Resources

Go to [www.healthystreams.nz](http://www.healthystreams.nz) and check the resource section for the Field Guides for further reading and online resources. Some great sites with lots of great information to get you started are listed below

Nelson City Council: [www.nelson.govt.nz](http://www.nelson.govt.nz)

Department of Conservation: [www.doc.govt.nz](http://www.doc.govt.nz) Forest and Bird: [www.forestandbird.org.nz](http://www.forestandbird.org.nz)

Land, Air, Water, Aotearoa (LAWA) [www.lawa.org.nz](http://www.lawa.org.nz)

NIWA - SHMAK (stream health monitoring)

[www.niwa.co.nz/freshwater/tools/shmak](http://www.niwa.co.nz/freshwater/tools/shmak)

Manaaki Whenua Landcare Research:

[www.landcareresearch.co.nz/resources/identification/](http://www.landcareresearch.co.nz/resources/identification/)

### Some Reading:

Remember to have a look at the Library for a wide range of reference books about this area specifically and about our local flora and fauna.

A list of the superb fieldguides by Andrew Crowe is provided on this site

[www.bookcouncil.org.nz/writer/crowe-andrew/](http://www.bookcouncil.org.nz/writer/crowe-andrew/)

A Photographic Guide to Freshwater Fishes of New Zealand by Stella McQueen and Rod Morris is a handy resource for adventures to the waterways

A beautiful new book worth looking out for is TREASURES OF TANE Plants of Ngai Tahu. By Rob Tipa.





**Healthy Streams**

From the Mountains to the Sea  
ki uta ki tai



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KI TE WAIPOUNAMU  
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Nelson Marlborough Institute of Technology  
Te Whare Wānanga o Te Tai Pūnaha Te Mātahi o Aotearoa



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te kaunihera o whakatū