TLG presentation to Community Stakeholder Group Healthy Rivers CSG6

### Nā lo te waiora

He au aio

He au aio

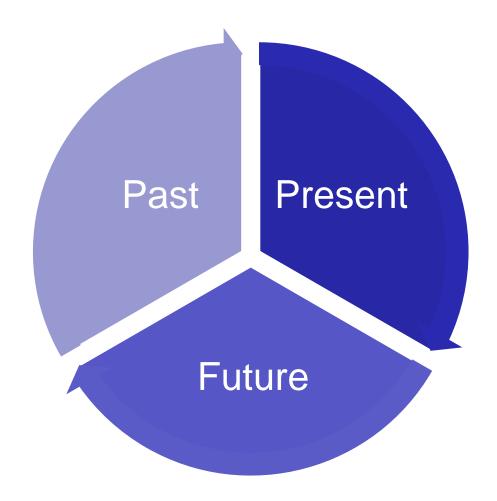
He ia aio no te waipuna ariki

He wai pū, he waipuna, he waiāriki

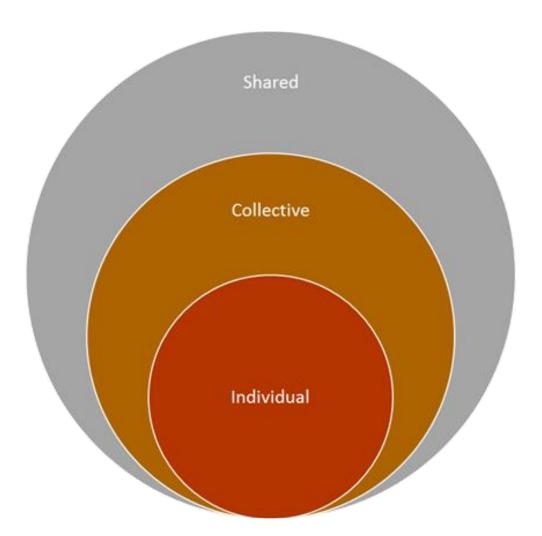
Nā lo te waiora

### **SESSION 1**

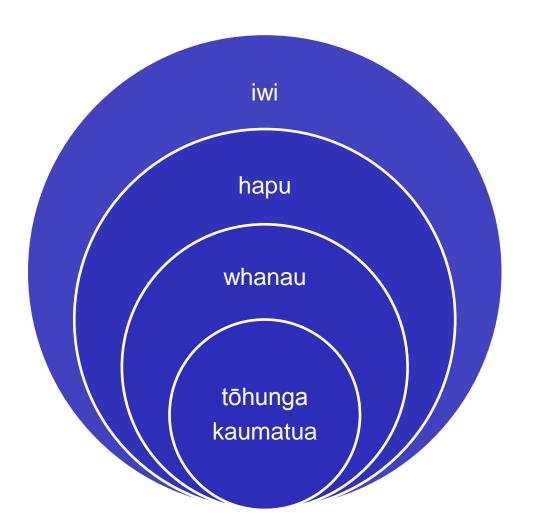
- Matauranga Māori
- Matauranga iwi / hapu / whanau
- Models and frameworks
- Work undertaken nationally and locally
- Work underway
- Preliminary approaches
- Work being commissioned









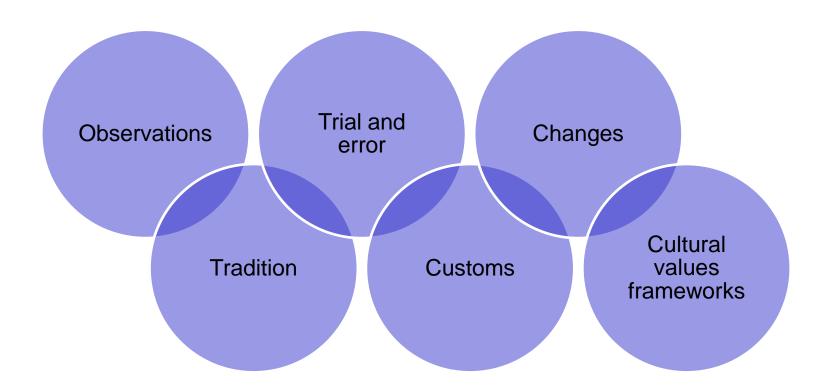




Nā te kune te pupuke Nā te pupuke te hihiri Nā te hihiri te mahara Nā te mahara te hinengaro Nā te hinengaro te manako Ka hua te wānanga.

From the conception the increase From the increase the thought From the thought the remembrance From the remembrance the consciousness From the consciousness the desire. Knowledge became fruitful.

- Matauranga Maori is a term that describes the body of knowledge originating from Māori ancestors, including the Māori world view and perspectives, Māori creativity and cultural practices (Te Aka Maori-English).
- Matauranga Maori embraces individual, local and collective knowledge, Maori values, cultural expressions, perspectives, observations, being traditional, historical and contemporary.



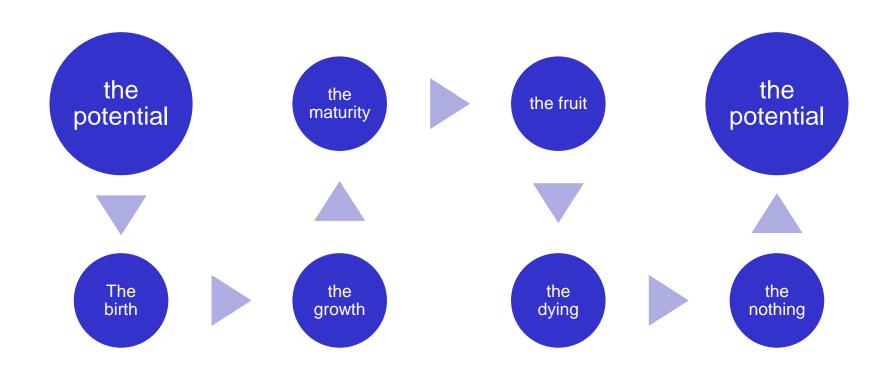


### Questions

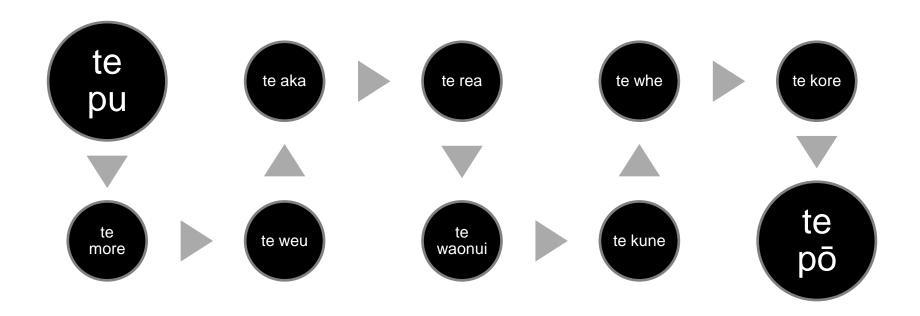


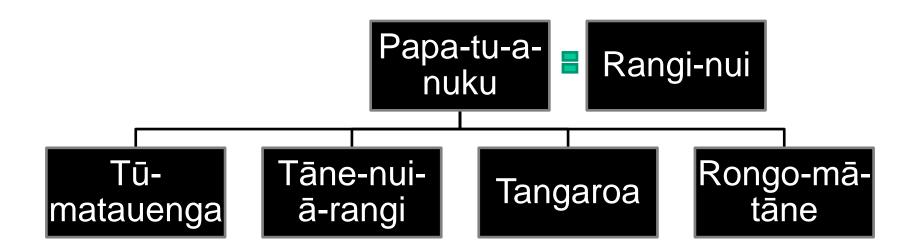


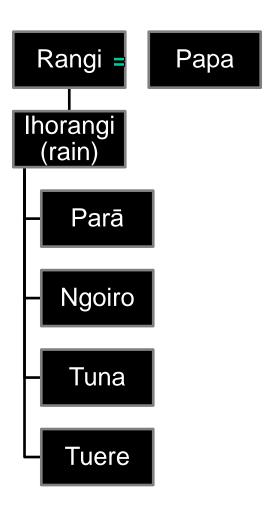




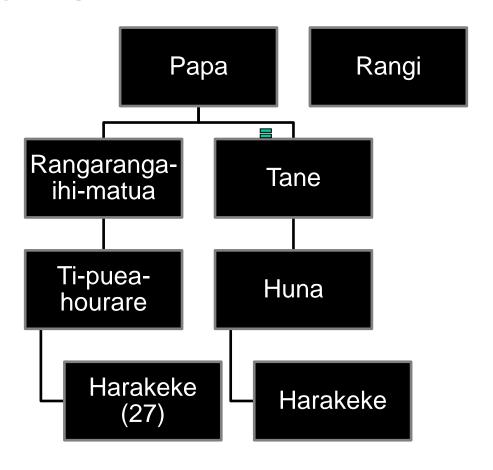




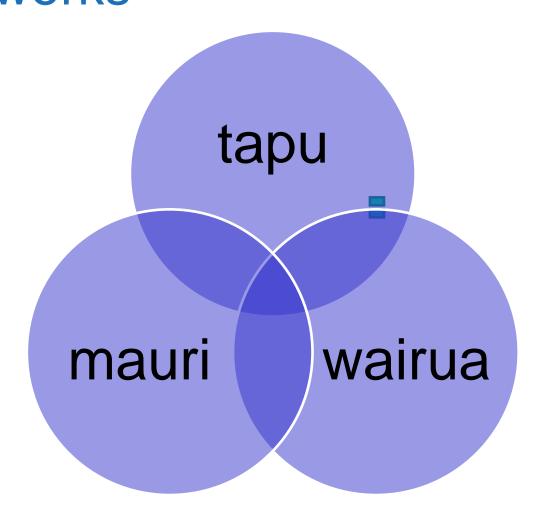














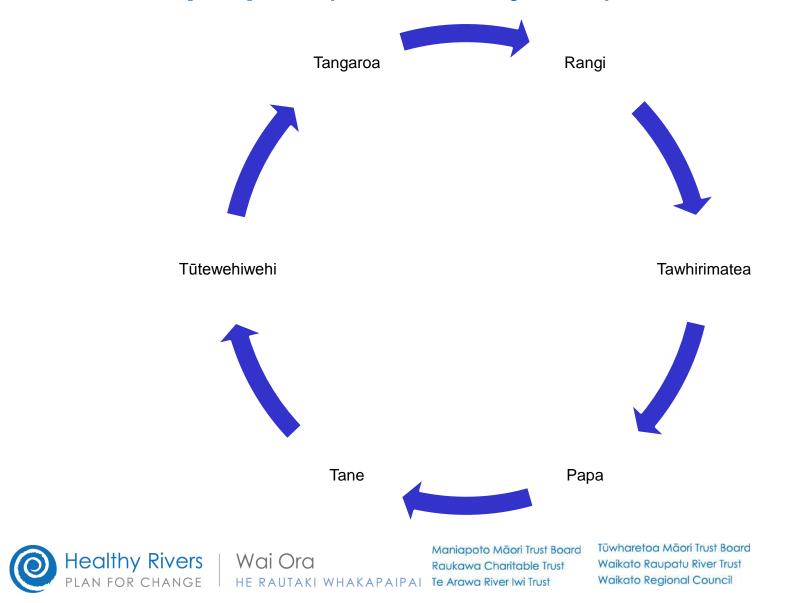
### Questions



### Cornerstone water concepts

- Mauri life essence
- Tapu divine force
- Whakapapa genealogical relationship
- Wairua consciousness
- Hononga connections
- Tikanga values, principles and rules

## Whakapapa (water cycle)



### Cornerstone river concepts

- Te Mauri
- Te Ahua
- Te Rere tere, mangere, rererua,
- Te rongoa
- Te timu me te pari
- Nga tohu taniwha, tipua
- Te koiora
- Ngā rawa (resources)

### He wai – he awa ranei

### He Wai

- Source of life
  - Sustenance
  - cleaning
  - Cooking
  - Preparing
  - gardens
- Cleansing

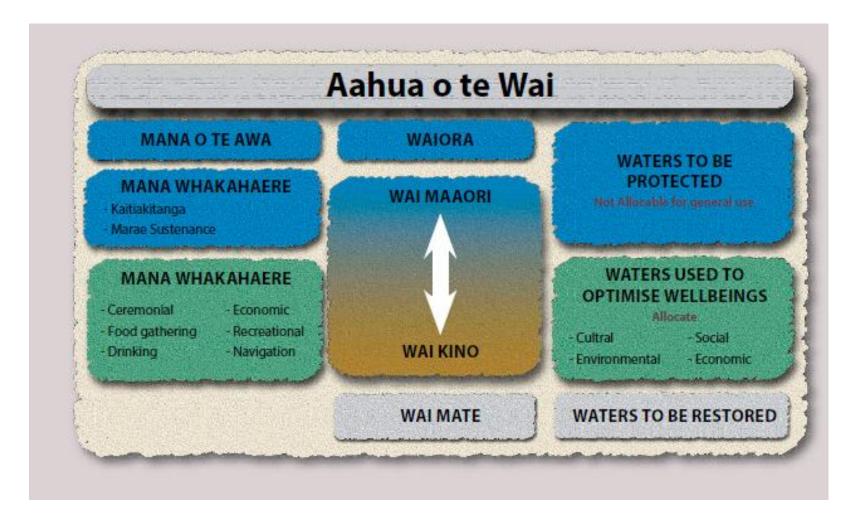
#### He Awa

- Source of life
  - Food
  - Resources
- Transport
  - Moving from place to place
- Source of identity
- Sense of place
- Source of knowledge

### Current models and frameworks

- Tapu and noa framework
- Mana Atua, Mana whenua, Mana Tangata
- Mauri model
- Cultural health index
- Whakapapa
- Function and significance
- Ecosystem (knowledge networks)
- 1840 baseline

### Tapu and noa

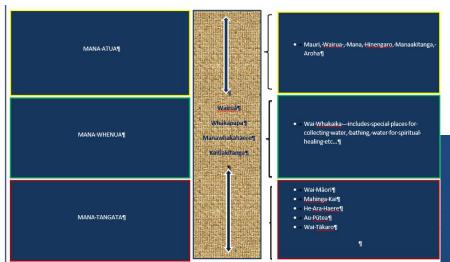


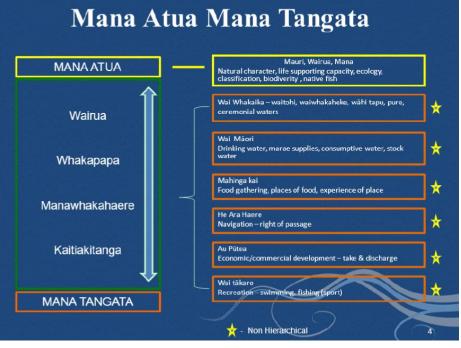


### Tapu and noa

Waiora	
Wai puna	
Wai whakaika	
Wai Māori	
Wai kino	
Wai mate	Wai tai

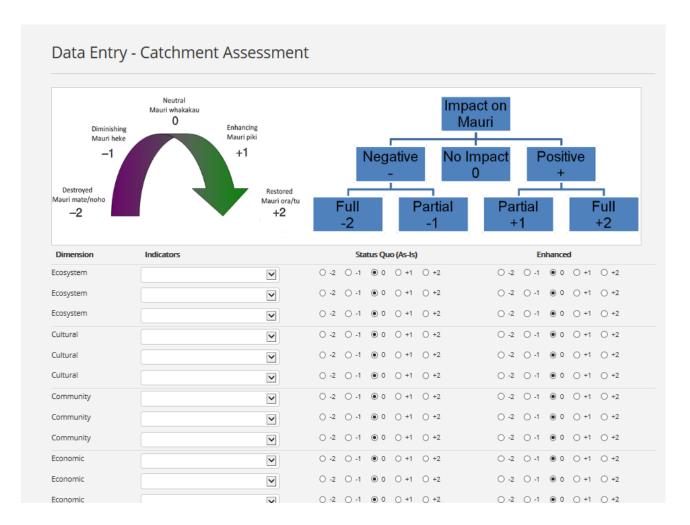
### Mana Atua, Mana Whenua, Mana Tangata







### Mauri model - Mauriometer





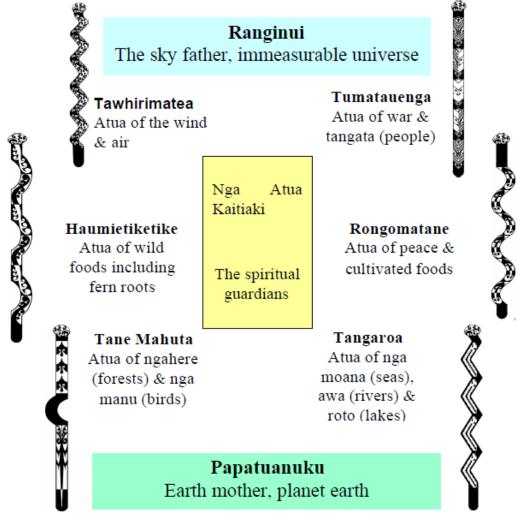
### Cultural Health Index

- Western Science
  - Small organisms
  - Clarity
  - Turbidity
  - Temperature
  - Dissolved oxygen
  - In-stream habitat quality
  - Algae

- Matauranga Māori
  - Smell, Colour, feel
  - Clarity, Flow
  - Flora and fauna
  - Wai tapu
  - Access
  - Use of customary resources
  - Special characteristics
  - Physical change
  - Abundance
  - Mana



## Whakapapa



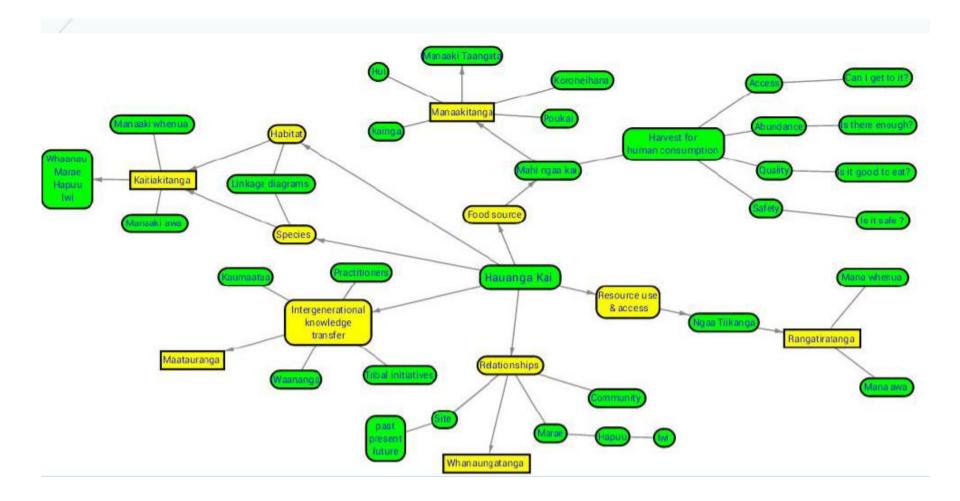
Atua (departmental gods) domain framework Source: Tiakina te Taiao, Dean Walker.



## Function and Significance

- The name of the river
- Taniwha
- Settlement
- Special places and resources
- Special characteristics of the river

### Knowledge networks





### 1840 baseline

- Historic baseline
- Compared to present day
- Often natural, pristine, abundant
- e.g. He Maimai aroha o Kīngi Tāwhaio

## Work being undertaken

- Cultural Health Index
- Māori environmental performance indicators
- Te Mauri Model
- Nga Atua Domain Framework
- **WRISS**
- Knowledge Networks for Waikato River Restoration
- Nga tohu o te wai national project
- Tai Timu, Tai Pari Tai Ao -Waikato Iwi Environmental Management Plan
- Raukawa Environmental Management Plan
- Ngati Maniapoto



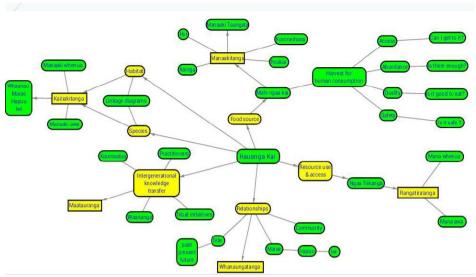
### Nga tohu o te wai

- Develop knowledge and tools to enhance kaitiakitanga of mahinga kai/hauanga kai by supporting the setting of freshwater limits.
  - Identify knowledge gaps and existing tools in maatauranga and contemporary science that can be used for limit- setting;
  - Integrate maatauranga and science knowledge to understand what affects kai species;
  - Work through the process of setting bands for one of those species;
  - Identify locations for future work to test this process at a scale and in a way that is appropriate for tangata whenua and council processes;
  - Provide information on the outcomes of this work to the wider community.
- 4 years



## Nga Tohu o te wai - logic wheel and knowledge networks





- Mahinga kai / food gathering
- Kaukau / swimming
- Uara tuturu cultural values

- Nitrogen
- Phosphate
- Sediment
- Pathogens

- Kai / food
- Kaukau / swimming
- Uara tuturu cultural values

values

attributes

choice

tradition

acceptability

limits

impacts

timing

- Confirm kai species
- Confirm swimming places and time
- Confirm list of cultural values for study area or catchments

- What are the influences and attributes essential for maintaining and enhancing the values?
- What is the current state of these attributes?
- What influence (in context) do the 4 contaminants have on Maori values and their attributes?

- Can we articulate bands and if not what can be measured another way?
- What methods can be used to maintain or enhance attributes and values? -what impact will they have?
- What are the spatial considerations?



Wai Ora HE RAUTAKI WHAKAPAIPAI Te Arawa River Iwi Trust

Maniapoto Māori Trust Board Raukawa Charitable Trust

Tüwharetoa Māori Trust Board Waikato Raupatu River Trust Waikato Regional Council

### Preliminary approaches and commissions

- Initial populating of the WOF
  - Literature
  - Iwi Management Plans and literature
  - Experts
  - Iwi representatives

### Preliminary approaches and commissions

- Knowledge networks
  - Exploring Māori values and attributes
  - Contextualising 4 contaminants
  - Communicating to people

### Preliminary approaches and commissions

- Collaborating with other programmes
  - Ngā tohu o te wai













