

# Maori Attributes – tohu Maori

Presentation to Community Stakeholder Group

Healthy Rivers

5 June 2016

# Overview

- Work programme for attributes
- CHI
- Expert panel work
- Summary
- Mahinga kai
- swimming

# Work programme - mahi

- Attributes expert workshop
- Matauranga Maori workshop
- Literature review
  - WRISS
  - Iwi management plans
  - Iwi Fisheries Plans
  - Project documents
- Assessment report

# 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

# Expert Panel (included in Attributes summary)

- Clarity (suspended sediment)
- Temperature
- Deposited sediment
- Abundance of fish / quality of fish
- Invertebrates
- E. coli / faecal coliforms
- Catch per unit effort

# Matauranga Maori workshop and literature review

## **Physical / Resource**

- Stream and bank qualities
- Instream water quality
- Abundance of fish, plants, birds and resources
- Pest plants and animals
- Wai tapu / wahi tapu

## **Non-physical / qualitative**

- Acceptability – safe / familiar
- Use – quality of experience
- Sense of community and connection
- Access
- Traditions / knowledge / tikanga
- wai tapu / wahi tapu

# Mahinga Kai – food gathering

Attribute	Measure	Target
Habitat	Naturalness, area of habitat (ha), abundance	Same or increase
Water quality to support life	Clarity, temperature, pH, heavy metals, sediment, pesticides, N + P	improved
Abundance of native fish, birds and plants	Koura, tuna, piharau, kakahi/kaeo, inanga	edible
Access to rivers	Legal, physical, adjacent land-use, knowledge	access to mahinga kai areas
Pest plants and animals	Catfish, carp, RPMS	RPMS
Tradition/matauranga	Knowledge, use, familiarity (smell, sound, feel, flow, change)	tbc
Waitapu, wahi tapu, wahi tupuna	Use, familiarity, knowledge	Formally protected, use by function

# Kaukau - swimming

Attribute	Measure	Target
Acceptability	Naturalness, flow, clarity, feel of bottom, visual, tohu	tbc
Recreation	Faecal bacteria	swimming
Safety of swimming place	Debris, access, contaminants, rubbish, use	tbc
Access to rivers	Legal, physical, adjacent land-use, knowledge	tbc
Pest plants and animals	Catfish, carp, RPMS	RPMS
Sense of community and connection	Use, access	Tbc
Tradition/matauranga	Knowledge, use, familiarity (smell, sound, feel, flow, change)	tbc



Healthy Rivers  
PLAN FOR CHANGE

Wai Ora

HE RAUTAKI WHAKAPAIPAI



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