



Healthy Rivers
PLAN FOR CHANGE

Wai Ora
HE RAUTAKI WHAKAPAIPAI



TŪWHARETOA
MĀORI TRUST BOARD



Summary – Mātauranga Māori Report

- This report articulates relationships and inter-dependencies of three subject areas; swimming in rivers, the taking of mahinga kai species and special characteristics of rivers from a River Iwi perspective.
- Identifies factors affecting food gathering, swimming and special characteristics on the Waikato and Waipa Rivers and their tributaries from a Māori perspective
- Based on literature review, series of hui and a mātauranga Māori workshop
- Identifies gaps in information



Holistic River quality perspectives

- River Iwi see the river, stream or lake as an entity in itself that includes the land, the water, the rocks, the air, the living plants and animals, and the spiritual dimension of place.
- There is a sub-set of water qualities.



Importance of swimming

- Swimming enables people to become knowledgeable in areas of the awa and moana (wāhi tapu, rāhui);
- Knowledge of kaitiaki, taniwha and tikanga related to awa and moana;
- Kaukau [is] important for whanau and visitors (tourism);
- Cleansing for hauora/healing;
- Whanaungatanga;
- Play/recreation;
- ‘Ko au te awa, ko te awa ko au’ (I am the river, the river is me); and
- Improves health and well-being.



Mahinga kai – hauanga kai

- The activity of and the place of harvesting, collection, hunting and gathering of food resources
- *Hauanga kai* is the term used by Waikato-Tainui and refers to customary and contemporary gathering and use of naturally occurring and cultivated foods



Importance of mahinga kai

- For sustenance of the individual, family, community, and ultimately the iwi
- Tradition, a body of knowledge and a range of activities that connect people to their ancestors and the environment
- Iconic species
- whakapapa or genealogical connection to Atua and the primal parents Ranginui (sky father) and Papatuanuku (earth mother)



Special characteristics – nga tohu

- The past, the present and the future context
- Mauri, wairua and inherent mana of the water and its ecosystems in their natural state
- Smell, colour, feel; clarity, flow; flora and fauna; wai tapu; access; use of customary resources; special characteristics; physical change; abundance; and mana.



Values associated with special characteristics

- The **look** of the river and its surrounds (physical and natural character);
- The **sound** of the water;
- The **touch** of the water (temperature);
- The **smell**;
- The **taste** of kai from the river; and
- The **wairua** of the place.



Factors affecting special characteristics

- The ability to physically access rivers, streams and lakes
- The abundance of kai,
- Physical barriers to fish migration
- The quality of the habitat to sustain life
- The presence of pest plants and fish
- The presence of '*te paru i te wai*' (dirty water)
- The use of water for economic, social and cultural well-being
- The flow of water
- Physical modifications
- The traditions, history; knowledge and experiences of River Iwi
- The presence of, and use of wai tapu
- The knowledge and protection of wāhi tapu and wāhi tupuna
- The safety of places to swim, and
- Modification of river course.



Key factors affecting water quality

- The traditions, history, knowledge and experiences of River Iwi
- The presence of '*te paru i te wai*' (dirty water) - clarity
- The flow of water (speed and quantity)
- The **sound** of the water;
- The **touch** of the water (temperature);
- The **smell**;
- The **taste** of kai from the river; and
- The **wairua** of the place.



Key gaps in Mātauranga Māori

- The location of all swimming places,
- The identified and recorded location of wai tapu and wāhi tapu, and
- Specific measures and limits for mātauranga Māori or cultural attributes and supporting data
- ‘A model’ for measuring and monitoring mātauranga Māori attributes as a cohesive and holistic framework
- Values related to a range of lakes



Integrated Assessment Panel

- Panel consists of; Liz Wedderburn, Antoine Coffin, Bruce Small, Jacqueline Henry, Emma Reed, Beat Huser, & Julie Meade Rose, with the support of CSG sub-group & CSG working-group.
- First session held on 29th July.
- Panel aims to:
 - List of indicators within the IA framework.
 - Develop a matrix of the relationship between the four contaminants and the IA indicators
 - Develop a matrix of the scenarios against impact on the IA indicators (using output from the models and other information)
 - Develop a matrix of policy interventions against impact of IA indicators.



Integrated Assessment – Māori Cultural

1. **Kaukau (Swimming):**
 - Te Rere - flows
 - Riparian Margin
 - Access
2. **Mahinga Kai**
 - Edible mahinga kai - E.coli
 - Access
3. **Special Characteristics**
 - Physical Access
 - Habitat
 - Wai Tapu



Integrated Assessment – Environmental

1. Ecosystem health

- MCI (in the tributaries)
- Native Fish
- Exotic Macrophytes



Integrated Assessment – Social/Community

1. Employment with an emphasis on type, variety and diversity of jobs (including the opportunities from tourism)
2. Infrastructure (which only covers energy, water and waste; taking consideration of investment decisions that will be made by industry (risk, confidence)
3. Recreational use of the river (including access and safety)



Integrated Assessment – Economic

1. Waikato contribution to national exports
2. Regional GDP
3. FTE by Sector

