



# Māori values for freshwater planning

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# Collaborative process

- “Māori and local authorities have made huge strides in developing and fostering positive working relationships, particularly since the RMA 1991. However despite 20 years of progress there still remains a high degree of frustration over the limited representation of Māori perspectives and knowledge in land use planning and policy formulation”
- (Awatere *et al.* 2013. Kaitiakitanga o ngā ngahere pōhatu: Kaitiakitanga of urban settlements. *In* Reclaiming Indigenous Planning. (eds) Jojola, T., Natcher, D., Walker, R. Montreal: McGill-Queen’s University Press. 236- 259.



# Significant issues for Māori around water management – examples

- “Māori are increasingly keen to explore their **rights to freshwater**. These rights may exist as a consequence of custom and customary use, under the common law doctrine of aboriginal title, or under Article Two of the Treaty of Waitangi ...”
- “The message that is coming consistently from Māori is that, to date, **the legal framework for managing water has not provided an adequate role for Māori**”.
- “**Māori want a stronger voice in freshwater management and a role in decision-making as befits a Treaty partner.**”
- “Māori can bring a unique contribution to freshwater management through the ethic of **kaitiakitanga**. The contribution that tangata whenua can make towards sustainably managing our water resources will be of benefit to all New Zealanders.”
- “**Water is at the heart of Māori wellbeing**”

*Comments after Pita Sharples speech on water at the National Iwi leaders summit (2009)*





# The situation and challenges

- iwi/hapū achieving a fuller legal expression of their rights and interests to freshwater
- improving water governance with particular regard to the role of iwi – new governance models e.g. co-management (*to give better effect to the Treaty partnership with respect to water*)
- defining what principles would represent best-practice freshwater decision-making from an iwi/hapū perspective
- Understanding and articulating Māori values
- mātauranga Māori and western science in parallel to inform management and decision-making
- A need to build Māori capability and capacity
- Actions on the ground

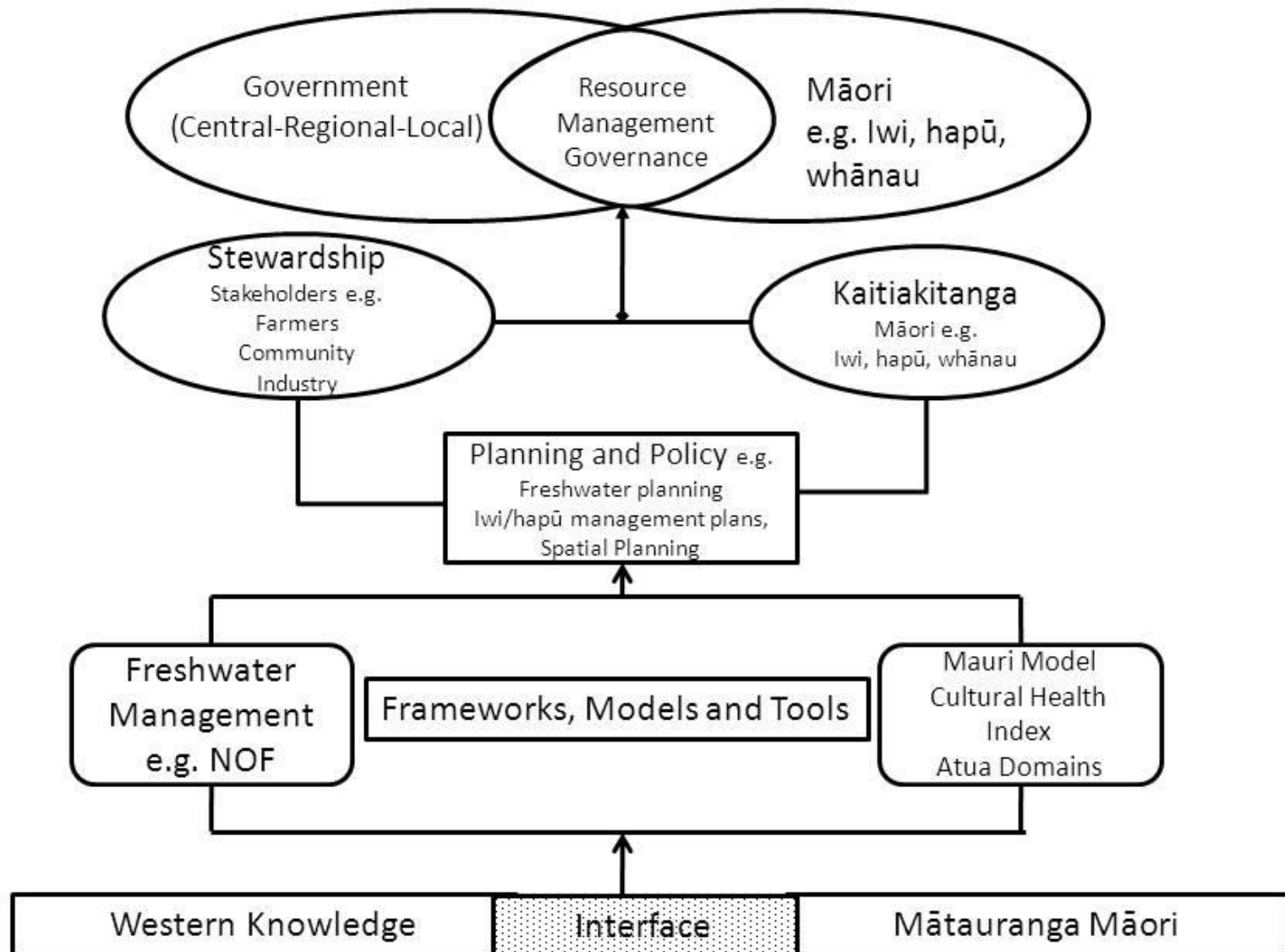


# What we have found to date: 6 key steps for Freshwater Management (1)

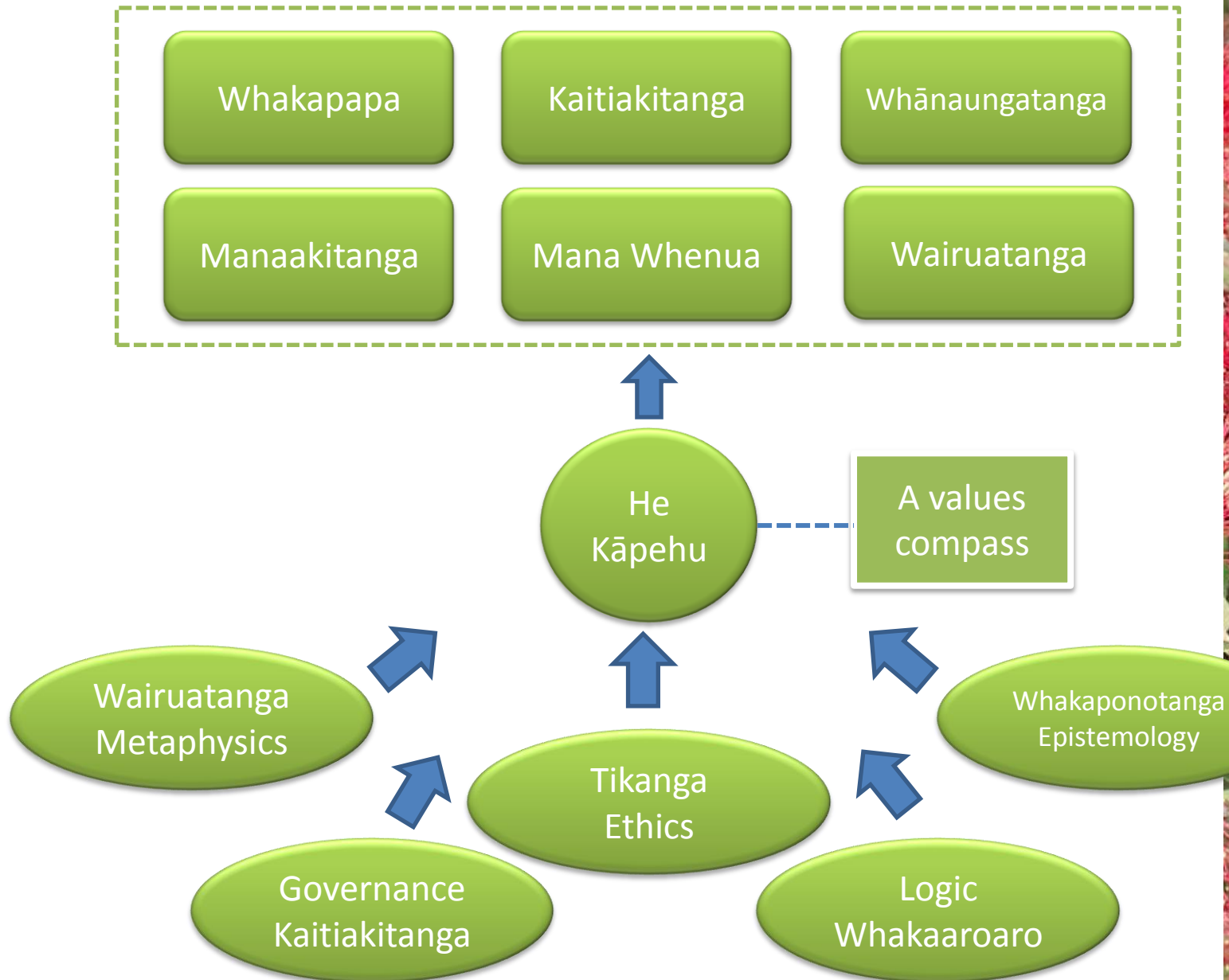
- ▣ (1) Mana Whakahaere: A Treaty-based planning framework is used for engagement and policy development



# Treaty-Based Planning Framework



## Ngā Pou Herenga Core Principles





# Key steps for Freshwater Management (2)

- ▣ (2) Whakamāramatia ngā Pou Herenga: Tāngata whenua values are defined and reflected in engagement processes





# Internal core Māori values – customs, guide behaviour, ethics, principles, decision-making

Whakapapa (ancestry, lineage, rights)	Whānaungatanga (relationships, connections, family)
Tikanga (custom, tradition, protocols, values)	Kotahitanga (unity, consensus, participation)
Rangatiratanga (sovereignty, autonomy, empowerment, management, decision-making)	Mana, mana whenua, mana moana, mana atua, mana whakahaere, mana tangata, whakamana, (based on whakapapa represents authority, power, control, status, leadership)
Manaakitanga (caring for, looking after, hosting)	Kaitiakitanga (environmental guardianship)
Tohungatanga (the retention and use of knowledge to benefit the tribe or business)	Tau utu utu (reciprocity, giving back what you take)
Wairuatanga (spiritual wellbeing, taking into consideration the spiritual dimension)	

# Te Uri o Hau Values

Tikanga

Matauranga

Whakapono

Tumanako

Manaakitanga

Aroha

## Te Ao Maori

Mauri

Tikanga

Taonga

Kaitiakitanga

Mana whenua and mana moana

Mana atua

Tapu & Noa

Wairuatanga

# External Maori values – expressed in the landscape, lakes, rivers (~location specific), etc:

**Wāhi tapu** (sacred sites), e.g. urupā (burial grounds), sacred shrines (tuahu), wai whakaika (ritual or ceremonial sites), ana (caves)

**Wāhi taonga** (treasured sites), e.g. marae, kainga (settlements), pā (old fortified villages), forest

**Wāhi tupuna** (ancestral sites) – waka landing and anchorage sites (e.g. unga waka, tauranga waka), old battlegrounds, ara (tracks), rock outcrops, wāhi tohu (indicators) etc.

**Mahinga kai** – resource sites (traditional food source/collection areas), wāhi raranga – plant sources for weaving

**Taonga:** Flora and fauna, taonga species (**plants, trees, animals, birds, fish, etc.**), habitats (e.g. wetlands), rongoa (medicines), etc.

**Te Reo** – Place names

**Landmarks:** mountains, peaks, hills, lakes, rivers, coastal, geothermal areas, etc.

**Rock and mineral** source and trade areas (e.g. pounamu/nephrite/greenstone)

Important **archaeological sites:** artefact finds (e.g. adzes, carvings-whakairo, rock art, middens-ovens, waka/canoe remains etc.

**Metaphysical** (e.g. Taniwha), Atua domains





# Taonga tuku iho





# General classification of water (relationship to tapu and noa)

<b>Wai ora</b>	Water in its purist form, e.g. rainwater
<b>Wai puna</b>	Spring water
<b>Wai whakaika</b>	Ritual waters, pools, ceremonial
<b>Wai māori</b>	Freshwater water, water for normal consumption
<b>Wai mate</b>	Water that has lost mauri, degraded, and is no longer able to sustain life
<b>Wai kino</b>	Water that is dangerous, such as rapids
<b>Wai tai</b>	Seawater, saltwater, the surf or the tide



# Steps for Freshwater Management (3)

- ▣ (3) Whakamāramatia ngā Huānga:  
Desired outcomes are defined at the beginning of the engagement process



# Vision or outcome (e.g., Waikato river)

*Tooku awa koiora me oona pikonga he kura  
tangihia o te maataamuri*

*The river of life, each curve more beautiful than  
the last (Waikato –Tainui)*

- “Our vision is for a future where a healthy Waikato River sustains abundant life and prosperous communities who, in turn, are all responsible for restoring and protecting the health and wellbeing of the Waikato River, and all it embraces for generations to come”(GEC)
- “Restore the mauri of the river”



# Vision or outcome (e.g., Kaipara)

**“ A healthy and productive Kaipara harbour”  
[IKHMG common vision]**

**Ka mau tonu nga taonga tapu o nga matua tupuna,  
Ko nei nga taonga I tuku iho, na te Atua  
[Nga Kaitiaki Tai Ao o Kaipara]**

**Environmental & resource management provides &  
implements policies that give recognition to the  
practice of kaitiakitanga & exercise of tino  
rangatiratanga  
[TUOH HEMP]**





# Key steps for Freshwater Management (4)

- ▣ (4) Whakamāramatia ngā Uaratanga:  
Goals and objectives are established





# Te Uri o Hau Goals

Mauri of water and air

Biodiversity

Co-governance

No discharges to waterways

Integrated management of Kaipara and  
Mangawhai harbours



# Te Uri o Hau

## *Goals achieved to date*

**IKHMG Plant 2 million trees**

**IKHMG Farm flagship sites**

**TUOH education trail and marae  
biodiversity project**



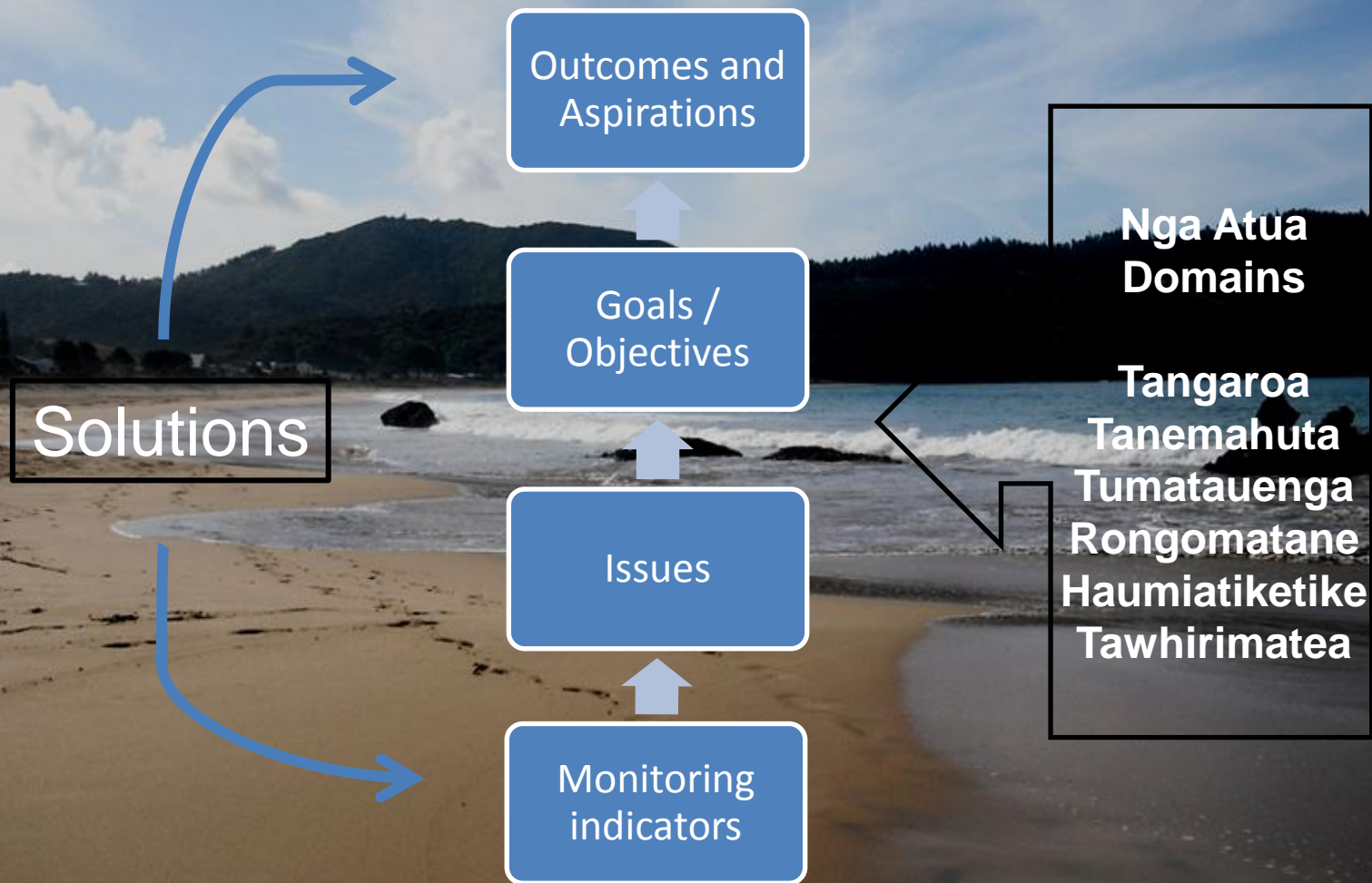
# Key steps for Freshwater Management (5)

- ▣ (5) Whakamāramatia ngā Aroturukitanga: Monitoring approaches are developed and implemented





# Te Uri o Hau Monitoring Framework



# Monitoring/indicators

- Is the outcome/goals achievable in some timeframe?
- How do we measure progress towards (or away from) from a vision/outcome/aspirations/goals??
- How do we know we are making progress? What incremental steps? What are the trends?

**We could use Māori monitoring approaches, tools, indicators**



# Monitoring methods and tools (to 2012)

- Cultural Health Index (CHI) Tipa & Teirney 2003, 2006)
- Cultural indicators of wetlands (Harmsworth 1999, 2002)
- State of Takiwa “toolbox” (iwi environmental monitoring and reporting tool), see [www.ngaitahu.iwi.nz](http://www.ngaitahu.iwi.nz)
- Adaptation of the Cultural Health Index (CHI) by Tiakina te Taiao for their own use and application in the upper South Island (Te Tau Ihu) (Young et al. 2008, Harmsworth et al. 2011)
- CHI for estuarine environments (Tiakina Te Taiao – Walker 2009)
- Development of coastal and marine health index (presently underway)
- Development of cultural indicators for lakes (underway by Ngai Tahu)
- Te Mauri model (Dr Kepa Morgan 2007, 2006)
- Significance assessment method for tangata whenua river values (Tipa 2010)
- KEIAR framework (Waikato case study) (Dixon 2011)



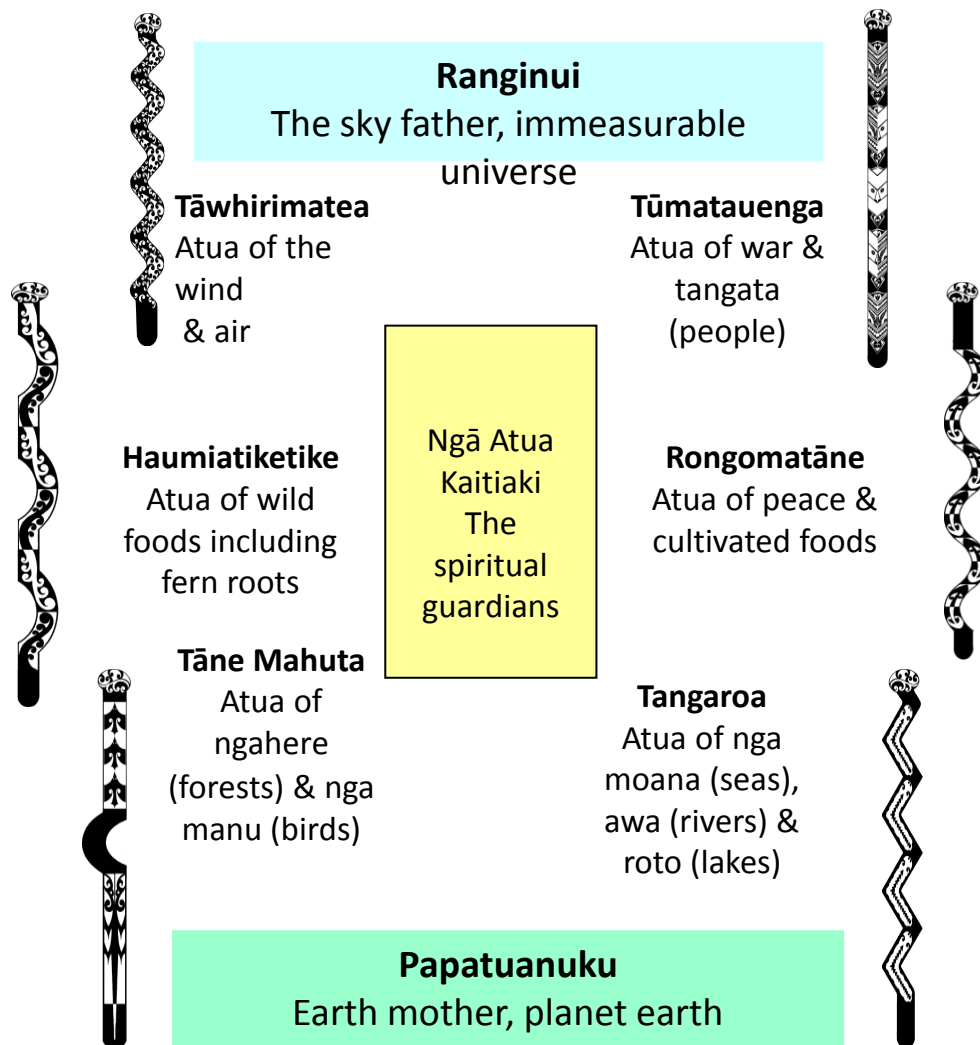


# Monitoring methods and tools (other to 2012)

- an internet-based Iwi resource management planning tool (Kaitiaki Tools) (NIWA 2009)
- Iwi Estuarine Monitoring Toolkit (Ngā Waihotanga Iho) (Rickard & Swales 2009a,b)



# Ngā Atua domains framework



**Figure 1:** Atua (departmental gods) domain framework  
Source: Tiakina te Taiao.



# Indicators (examples)

## **Tangaroa**

- Water Clarity
- Water Flow
- Water Quality
- Shape and form of river, riverbank condition, sediment
- Insects
- Fish

## **Tāne Mahuta**

- Riparian vegetation
- Catchment vegetation
- Bird life (species)
- Ngahere/Taonga
- Pests

## **Haumia tiketike**

- Mahinga kai
- Rongoa

## **Tūmatauenga**

- Human activity, Use of river
- Access
- Cultural sites

## **Tāwhirimātea**

- Smell

## **Mauri / Wairua**

- Feeling, taste, wellbeing



# Indicator assessment and recording





# Links between science and cultural indicators





*In future environmental monitoring programmes could be classed into three main types that are complementary:*

Māori knowledge based	Community – scientific based	Scientific based
<p><b>Māori indicators –</b> In depth Māori understanding and knowledge of particular environments. Understanding of Māori values, goals, and aspirations required. Examples:</p> <ul style="list-style-type: none"> <li>• Taonga lists;</li> <li>• Key sensitive taonga indicators;</li> <li>• Te Mauri/ wairua;</li> <li>• Knowledge on uses and preparation of taonga;</li> <li>• Land-uses, point discharges, modification, impacting on cultural values and uses.</li> <li>• Key pest species</li> </ul>	<p><b>Community based indicators –</b> requiring low levels of technical input and skill but scientifically robust and part-value based. Cost effective, relatively simple and short duration. Examples:</p> <ul style="list-style-type: none"> <li>• Hydrology;</li> <li>• Soils/Nutrients;</li> <li>• Intactness of wetland;</li> <li>• Connectivity/Buffering or Fragmentation;</li> <li>• Introduced plants;</li> <li>• Animal damage;</li> <li>• Modifications to catchment hydrology;</li> <li>• Water quality within catchment;</li> <li>• Other landuse threats;</li> <li>• Key undesirable species;</li> <li>• % catchment in introduced vegetation;</li> <li>• Animal access.</li> </ul>	<p><b>Scientific indicators –</b> requiring higher levels of technical input and skill, robust sampling strategies, analysis and interpretation. May be time consuming. Examples:</p> <ul style="list-style-type: none"> <li>• Chemistry, water quality, nutrients;</li> <li>• Hydrology;</li> <li>• Water table modeling;</li> <li>• Botanical mapping, classification of plants;</li> <li>• pH;</li> <li>• Bacterial counts;</li> <li>• Giardia;</li> <li>• Cryptosporidium;</li> <li>• GIS applications;</li> <li>• Satellite imagery;</li> <li>• Studies of fish, macro-invertebrates, macrophytes.</li> </ul>



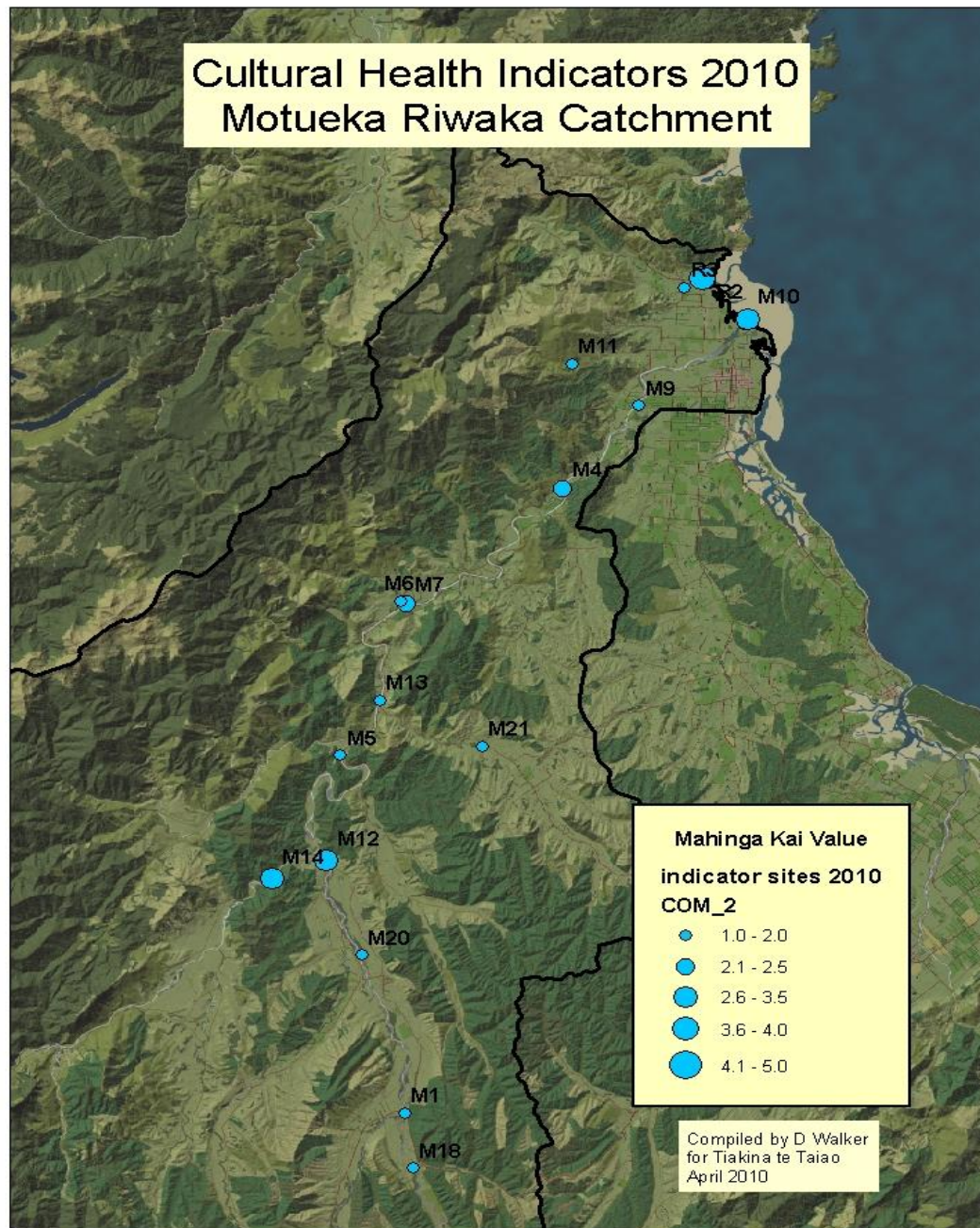


# The iwi monitors in the field

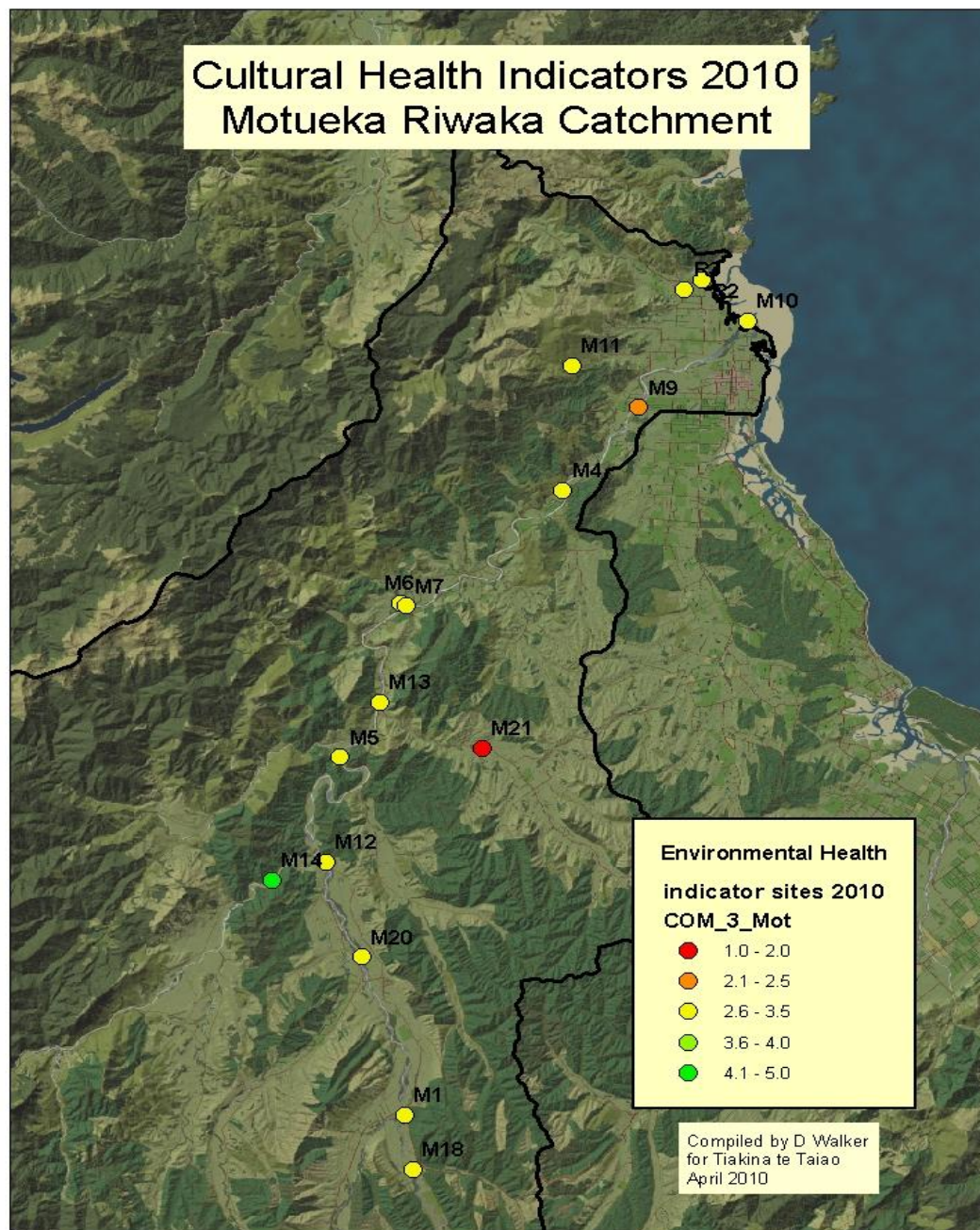




# Cultural Health Indicators 2010 Motueka Riwaka Catchment



# Cultural Health Indicators 2010 Motueka Riwaka Catchment





# Key steps for Freshwater Management (6)

- ▣ (6) Whakamāramatia ngā Mahi: Actions on the ground that demonstrate kaitiakitanga and progress iwi/hapū towards their goals/objectives/aspirations through tangible projects





# Cultural-environmental projects





# Awatea Basin







# Lincoln



# What still needs to be done?

- **Indigenous rights, Māori customary rights, property rights** – iwi/hapū achieving a fuller legal expression of their rights and interests to freshwater; clarification of ownership (tino rangatiratanga, mana motuhake, whakamana) – land, waterways, coastal;
- **Governance of water management** – improving governance *to give better effect to the Treaty partnership with respect to water* – new governance arrangements/models e.g. co-management;
- **Best-practice freshwater decision-making** – defining what principles would represent best-practice freshwater decision-making from an iwi/hapū perspective, collaborative processes
- **Understanding and articulating Māori values:** mātauranga Māori and western science in parallel to inform management and decision-making
- **Building capacity** for iwi/hapū, and Crown agencies/councils/industry etc
- **Actions on the ground** – Collaborative projects (partnerships), community projects e.g., sustaining enhancing Māori values, restoration and enhancement projects, enhancing mahinga kai, kaimoana, use of cultural and environmental monitoring, indicators etc.
- **Maori led research** – mātauranga Māori alongside western science, improved access to science research findings
- **Outcomes: Sustaining/enhancing resources/species/habitats through kaitiakitanga - cultural protection of habitats, taonga, sites** – e.g., Protection and enhancement of the freshwater environment, cultural sites, sustaining and protecting habitat and species, ecosystems, taonga, mahinga kai, etc. ...

