

ARA RAU TANGATA

TOWARDS A MAURI BASED UNDERSTANDING OF LAND DEVELOPMENT



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Kaiwhakahaere Matua / General Manager

Tangata Rongonui



NGĀ HUA

- Bachelor of Engineering 1986
- Hamilton Council Engineer (Papakainga)
- Registered Engineer 1991 20Ml reservoir
- Housing Industry Inaugural Award 1993
- Operations Manager Ngāti Pikiao (Whareuku)
- Senior Lecturer University of Auckland (Tauira)
- Associate Dean Māori Faculty of Engineering
- AaeE Excellence Inclusive Practice 2005
- Chartered Prof Engineer 2006 17
- PhD (Civil Engineering) 2008 (Mauri Model)
- University of Auckland Excellence in Equity 2012
- 2012 Fellow Institution Professional Engineers
- Furkert Award Technical Excellence 2016
- Aashukan Declaration (Waskaganish, Esteyou)





Ngāti Mākino Iwi Authority Journey Overview

- Mauri Symposium 2017 produces Mākino Model
- 2017 AGM Financial Reports questioned:
- Broader reporting than just financials......MAURI
- Trust Deed Ammendment July 2018 adds Mauri Reporting
- How?

Mauri-O-Meter

Why?

So What?



Ngāti Mākino Iwi Authority Journey Overview continued

- If only using monetary measures to record progress get more of same
- Are we wanting more of the same?

- Clearly NO!
- Need a better way of understanding what we are doing
 - 1. Development that Iwi want and desired impacts and outcomes
 - 2. Development that others want and the accompanying impacts

Learnings:

Haumingi Papakainga 1986 - Tikanga based design

Kimihia katoatia ngā putake o te kaupapa Ina I kitea, kimihia te rongoa

Look deep into nature then you will understand everything better

Development Haumingi 10a2b 1986



Indigenous Low Impact Development Mauri enhancing

Reduce Impacts at Source







Papakainga Resource Kit

TE PUNI KÖKIRI MINISTRY OF MÄORI DEVELOPMENT



Oneone + Muka + Ihu Oneone









Whakamātautau

















~ Ka Whanake Ngā Papakāinga Hei Mauri Ora ~

Papakāinga Evolving to Enhance Mauri

150+ years experience with papakainga

-Powerpoint montage designed by Dr. Vincent Professor Hurini Matunga --with Dr Te Kipa Kepa Morgan, Dr Robyn Manuel, Mr Tait Wichman and Professor Hirini Matunga -



PROBLEM: Scientists and Engineers can now change the land, sea, and atmosphere and the processes of papatūanuku to a greater degree than ever before.

AND

"I think that money speaks too loudly"

Kuleana and Commitment, K.L. Kawelu 2015

2003 Waiariki Algal Blooms – 'nutrients'

- (Water consumption blue baby syndrome)
- Visual distraction from aesthetics
- No water contact disrupts cultural practices
- No recreational use swimming / snorkelling
- Offensive smell from decaying matter
- Shell fish contamination
- Impacts on tourism



- Impact on 'national identity' clean and green
- Cultural implications for downstream users
- Obligations to future generations?

Ways of knowing: Waitangi Tribunal pre 1990

	Motunui	Kaituna	Manukau	Rangataua
Year	1983 Wai6	1984 Wai4	1985 Wai8	1990 Wai3
Claimant	Te Ati Awa	Ngati Pikiao	Ngati Te Ata	Tauranga Cmte
Rohe	Tai Hauauru	Waiariki	Manukau	Tauranga
Claim	Pollution of reefs	Pollution of river; pollution of lake	Pollution of harbour: access	Potential pollution of Welcome Bay
Issue	Petrochemical Industry; Motunui outfall impact on kai honne DA	Diversion of sewage from Rotorua to Kaituna in pret on lake use	Construction of sewage ponds, airport, motorway; impan kaimoara	Housing corp development; water right for De vage discharge
Objection	Impact on food sources; cultural offence	Impact on food sources; cultural offence	Impact on food sources; cultural offence	Impact on food sources; cultural offence
Outcome	Motunui outfall abandoned	\$12M Scheme abandoned; Land based effluent disposal	Harbour mgmt plan; Kaitiaki Removal of ponds; Beach remediation	Sewage discharge plan and water right abandoned

MAURI: a way of understanding the life supporting capacity of water, the people, or an ecosystem.



MAURI

THE ATTRACTIVE FORCE BETWEEN THE PHYSICAL AND META-PHYSICAL THAT FACILITATES ALL LIFE

Mākino Model Decision Making Framework



The Mauri Model includes everyone's Reality

Community

Social well-being

Mauri of Whanau

Economic well-being

Ecosystem

Enviromental well-being

Hapu Cultural well-being





How did our Tupuna measure mauri?

No Impact MAURI unchanged.

Exhausted MAURI

INDICATOR THRESHOLDS



Fully Intact

MAURI



A CLEAR DIFFERENCE



Swim-ability Indicator for Lakes



A CLEAR DIFFERENCE



Marine Habitat Management for Kaimoana

No Change 10%<extent<5% 0 threshold

Diminishing -1 Mauri heke Enhancing +1 Mauri piki

Exhausted -2 Mauri noho / moe

Fully Restored +2 <1% kina barrens Mauri tuturu / ora

A CLEAR DIFFERENCE



Our Reality of Water Scarcity



2015 Allocation Status Surface Water



Kaituna Catchments Synoptic Survey E.coli in relation to similar water bodies in the Kaituna Water Management Area

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Document Path: W:\GeoView\LandManagement\Thomas Grant\Synoptic Survey\Synoptic-Thomas-Edits.mxd

- O Best 25% of like sites
- Best 50% of like sites
- O Worst 50% of like sites
- Worst 25% of like sites



1,600 0 1,600 3,200 4,800 6,400 8,000 9,60 Meters Scale 4 : 180,000



Rotoiti Proposed WW Reticulation Routes

Problems: culturally significant sites, transfer of para, past failures, impact on mauri, integrity of mauri o te wai

SAFE TO FAIL!



Reticulate this?

Rotoehu Wastewater Scheme Risk Analysis



Or Vermiculture Pre-treated effluent?

- Prevent transfer of para
- Control what is in pipe
- Pre-treatment units
 - **Biolytix Pods**
- Ecosystem in tank
- Trial at Ruato
 - Safe to fail
- Alignment
- Away from lake edge
- Tree Root Bowls Hinehōpu
- Wāhi Tapu / sacred places
- Land Instability





APPLYING THE MAURI MODEL IN DECISION-MAKING FOR GEOTHERMAL DEVELOPMENTS

Nona (Dylan) Taute The University of Auckland Civil and Environmental Engingeering











Tipping Points

Sustainability

What should we be prioritising?





Ngāti Mākino Iwi Authority Position

Our Uri have identified their preferred solution to address the ecosystem and development needs of present and future generations. If Council are taking a position that opposes this, how does Council demonstrate a commitment to addressing the known disparities associated with the processes of colonisation that this Council has historically facilitated? Kia ahomatuahia te taketake kia tūwaerea te tau a Mākino, ā ki a tātou kātoa.

Turou Hawaikī!

Mai Otamarakau....



...ki Waskaginish, James Bay

