

CURRICULUM VITAE

PART 1 – Personal and professional details

1a. Personal details				
Full name	<i>Title</i>	<i>First name</i>	<i>Second name(s)</i>	<i>Family name</i>
	Dr Ing	Te Kipa	Kepa Brian	Morgan
Present position	Senior Lecturer			
Organisation/Employer	The University of Auckland			
Contact Address	2 Burrell Road			
	Waiheke			
	Auckland			Post code
Work telephone	09 9232362		Mobile	021 423084
Email	k.morgan@auckland.ac.nz			
Personal website (if applicable)	http://www.mauriometer.com			

1b. Academic qualifications

2008	PhD, Civil Engineering	The University of Auckland
1999	MBA (Technology)	Deakin University / APESMA,
1997	Graduate Diploma in Management	Deakin University / APESMA ,
1986	BE(Civil Engineering)	The University of Auckland

1c. Professional positions held

2010 -2012	Theme leader (0.1FTE)	Te Wharekura, Thematic Research Institute,
2002 –2010	Assoc. Dean Māori (0.5FTE)	Faculty of Engineering, Uni of Auckland
2000 –2002	Lecturer	University of Auckland
1998 -	Managing Director	Mahi Maioro Professionals
1993 –1998	Operations Manager	Te Runanga O Ngāti Pikiao
1993 –1994	Chief Executive Officer	Te Kotahitanga O Te Arawa Fisheries
1987 –1993	Engineer	Hamilton City Council, Design Services
1985 –1987	Assistant Engineer	Ministry of Works and Development

1d. Present research/professional speciality

Applications for the Mauri Model Decision Making Framework and Whareuku. My focus on enhancing the relevance of Civil and Environmental Engineering for Tangata Whenua, has evolved as Indigenous Engineering and Technologies of the Pacific research. My research is informed by and embedded within the continuum of Māori and Pasifika worldviews, knowledge, practices and values. It is conducted in accordance with Māori tikanga, values and aspirations (respect, responsiveness and reciprocity) and involves research processes and practices that are consistent with indigenous values. My research involves participatory action research with indigenous communities and demonstrates community engagement at all stages. These ethical requirements necessitate a greater emphasis on verbal in person communication modes (kanohi ki kanohi) and this is reflected in my research outputs.

1e. Years of research experience (exclude periods away from research)	15 years
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1f. Professional distinctions and memberships (eg honours, prizes, scholarships, governance roles etc)

2014 -Rotorua (Wastewater Treatment) Steering Cmte Technical Advisory Group
 2014 Rotoiti East and Rotomā Sewage Steering Cmte Technical Advisory Group
 2013 -Elected Inaugural Life Member South Pacific Professional Engineers for Excellence SPPEEx
 2012 Australian Council of Engineering Deans Supreme Award – High Comndtn
 2012 University of Auckland, Excellence in Equity Award (Contribution to Faculty)
 2010 -Elected Fellow of the Institution of Professional Engineers New Zealand
 2010 Member International Association of Impact Assessment (Indigenous Peoples Section Co-chair)
 2010 –Board Member Te Kotahi Research Institute, University of Waikato
 2010 –Trustee Te Puna Whakareia A Rakeiao marae, Te Rotoiti I Kite Ai E Ihenga
 2010 –2012 Board Member METRO, BEngTech National Qualification Devt Cmte
 2009 – Member International Association of Hydraulic Research (Board Member IAHR-APD 2013 -)
 2009 - 2013 Board Member Engineers Without Borders New Zealand
 2009 Best Doctoral Thesis Faculty of Engineering Nomination, Uni of Auckland.
 2009 Tohu Kairangi, Māori Academic Excellence Award Te Amorangi,
 2008 'Knowledge System Synergy for Future Sustainability', Benson Salloum Watts Visiting Scholar, University of British Columbia, Okanagan Campus, Canada,
 2006 - Institution of Professional Engineers NZ: Chartered Professional Engineer
 2006 - 2011 Institution of Professional Engineers NZ: International Professional Engineer
 2003 –Member, SPPEEx South Pacific Professional Engineers for Excellence (Inaugural President 2003 – 06)
 2003 – 2004 Ministerial Appointment to the Building Act Review Select Committee
 2002 – 2006 Ministerial Appointment SOE Board, Meridian Energy Ltd.
 2001 – 2005 Ministerial Appointment to Engineering Associates Registration Board
 1998 Finalist IPENZ, Young Engineer of the Year (Whareuku)
 1997 Te Ohu Kaimoana Education Trust Scholar (MBA study)
 1996 Inaugural Ian Hatfull IPENZ Memorial Scholar (MBA study)
 1995 Finalist Works Civil Construction, IPENZ Young Engineer of the Year (Mobile Health Clinic)
 1995 OECD Panel Review of NZ performance in Environmental Sustainability
 1993 Housing Industry Association Inaugural Award for Special Contribution to Housing
 1991 Engineer's Registration Board: Registered Engineer
 1991 -Chairman Haumingi 10a2b Papakainga Ahuwhenua Trust
 1982 – 1985 Ngarimu V.C. & 28th Māori Battalion Memorial Scholar
 1982 – 1985 Māori Education Foundation Scholar (BE studies)

1g. Number of peer-reviewed publications and patents	Journal articles	Books, book chapters, books edited	Conference proceedings	Patents
	19		46	

PART 2 – Information relevant to this proposal

2a. Research publications and dissemination

- FAAUI, T.N., **MORGAN, T.K.K.B.**, (2014) Disaster Recovery Options: Restore Mauri to pre-Rena State, MAI Journal 3(1)
http://www.journal.mai.ac.nz/sites/default/files/MAI_Jrnl_V3_Iss1_Faui_0.pdf
- WAMBRAUW, E.V., **MORGAN, T.K.K.B.** (2014). Concept Alignment for Sustainability Analysis in New Geo-cultural Contexts: Relevance of the Mauri Model in Asmat, Papua. *AlterNative: An International Journal of Indigenous Scholarship* 10(3)
- MORGAN, T.K.K.B.**, TEAHO, L. (2013). Waikato Taniwharau: Prioritising Competing Needs in Co-management of the Waikato River. *Adv. in Env. Res.* 29: 85-106 .
- MORGAN, T.K.K.B.**, WARETINI, A.F. (2013). The Yangtze River: Hydro Development, Changing Geography, Cultural And Environmental Implications. *Yangtze River: Geography, Pollution and Environmental Implications.* Nova, 65-88.
https://www.novapublishers.com/catalog/product_info.php?products_id=37491
- MORGAN, T.K.K.B.**, SARDELIC D.S., WARETINI, A.F. (2012), Three Gorges Project: How Sustainable, *Journal of Hydrology*, 460-461: 1-12.
<http://dx.doi.org/10.1016/j.hydrol.2012.05.008>
- DUCKER, D.J., **MORGAN, T.K.K.B.** (2012). A Psychosocial Approach to Stakeholder Participation in Environmental Problem Solving. The Case of the Contaminated Site Clean-up at Mapua, New Zealand. *Environmental Management and Sustainable Development*, 1 (2): 163-186. doi:10.5296/emsd.v1i2.2170
- PEACOCK, B.C., HIKUROA, D.C.H., **MORGAN, T.K.K.B.** (2012) Watershed-scale prioritization of habitat restoration sites for non-point source pollution management. *Ecological Engineering*, 42: 174-182.
- VOYDE, E., **MORGAN, T.K.K.B.** (2012) Identifying Commonalities Between Indigenous Values And Current Sustainable Design Concepts In Aotearoa, New Zealand, *AlterNative: An International Jnl of Indigenous Scholarship* 8(2): 215-229
- CHEAH, J.S.J., WALKER, P., HEATH, A., **MORGAN, T.K.K.B.**, (2012) Evaluating Shear Test Methods for Stabilised Rammed Earth, *Construction Materials CM001*: 1-10 doi: paper 1000061m
- HIKUROA, D., **MORGAN, T.K.K.B.**, HENARE, M., DURIE, M. ROBUST, T. (2011) Integration of Indigenous Knowledge and Science, *The Int. Jnl of Science In Society.*
- HIKUROA, D.C.H., **MORGAN, T.K.K.B.**, HENARE, M., GRAVELY, D.M. (2010) Integrating indigenous values into geothermal development. *Transactions – Geothermal Resources Council.* 34(1): 46-49.
- MORGAN, T.K.K.B.** (2009) Takarangi, Yin and Yang, Mauri and Qi, *MAI Review.*
- MORGAN, T.K.K.B.** (2009) Thinking Globally but Acting Locally: The relevance of Indigenous Knowledge and its potential to alter decision making outcomes in the Western World, *International Journal of Environmental, Cultural, Economic and Social Sustainability*, 5 (2), <http://www.Sustainability-Journal.com>, ISSN 1832-2077.
- MORGAN, T.K.K.B.** (2009) Exploring Knowledge System Synergies for Integrated Decision Making, *Jnl of Indig. Issues, Monash University.* 12 (1-4): 299-308.
- MORGAN, T.K.K.B.** (2008) A Research Baptism by Fire, *MAI Review* (1): 1-5, www.review.mai.ac.nz/
- MORGAN T.K.K.B.** (2007) Waiora and Cultural Identity: Water Quality Assessment using the Mauri Model, *AlterNative: An Int.l Jnl of Indigenous Scholarship.* 3: 44 - 69
- MORGAN T.K.K.B.** (2006) Decision-support tools and the indigenous paradigm. *Proc.s of the Instn of Civil Engineers, Engineering Sustainability*, 159 (4): 169–177.
- MORGAN T.K.K.B.** (2006) An indigenous perspective on water recycling Desalination. 187: 127-136
- MORGAN, T.K.K.B.** (2005) Construction workshops with Uku Harakeke reinforced Soil Cement Buildings. *Tihei Oreore Monograph Series*, 1: 85-107

Refereed conference proceedings

Wambrauw, E.V., **Morgan, T.K.K.B. (2014)**. Water Management In Papua And Socially Just Decision Making. Proceedings of the 19th IAHR-APD Congress 2014, Hanoi, Vietnam. 21-24 September, 2014.

Morgan, T.K.K.B. Wambrauw, E.V. (2014). Sustainable Water Management in the Urbanised Context of Agats, Papua. Proceedings of the 19th IAHR-APD Congress 2014, Hanoi, Vietnam. 21-24 September, 2014.

Morgan, T.K.K.B., Fa`aui, T.N. (2014). Decision Support Systems And Promoting Socially Just Environmental Management. 11th International Conference on Hydroinformatics HIC 2014, New York City, USA. 17-20 August, 2014. ISBN 978-0-692-28129-1

Morgan, T.K.K.B. (2014). Mauri Piki, Mauri Tū, Mauri Ora: The Integration of Traditional Ecological Knowledge and Systems Thinking Techniques to Create the Mauri Model. Extended abstract accepted for 99th ESA (Ecological Society of America) Annual Meeting in Sacramento, California, August 10-15, 2014.

Morgan, T.K.K.B. (2013). The Relevance of Community-Led Disaster Response in Aotearoa NZ to International Contexts. HATHI International Seminar on Water Related Disaster Solutions, Yogyakarta, Indonesia, 6-8 September 2013.

Morgan, T.K.K.B., Manuel, R.D., Hikuroa, D., Fa`aui, T.N., Bennett, R., Bennett, P.(2013). The Complementarity of Traditional Wisdom and Modern Knowledge in Disaster Recovery. Reg. Conf. of the Int. Geographical Union, Kyoto, Japan. 4-9 Aug 2013. http://oguchaylab.csis.u-tokyo.ac.jp/IGU2013/html/igu_2013_program4.html

Morgan, T.K.K.B. (2013). Disaster .Recovery: Approach to Assessing the Restoration of Mauri to its pre-Rena State. He Mana Whenua Indigenous Research Conference 2013. Claudelands Events Centre, Hamilton. 1 – 3 July 2013.

Morgan, T.K.K.B. (2013). Disaster Recovery Options: Restore Mauri to pre Rena State. IAIA13: Impact Assessment: The Next Generation, Calgary Stampede BMO Centre | Calgary, Alberta. Canada. 13 – 16 May 2013.

Morgan, T.K.K.B., Rehu, M. (2013). Fracking Impacts on Indigenous Peoples in Alberta and the Implications for Aotearoa NZ. . IAIA13: Impact Assessment: The Next Generation, Calgary Stampede BMO Centre | Alberta. Canada. 13 – 16 May 2013.

Morgan, T.K.K.B., Fa`aui, T. (2013). Decision making at the Interface: Mauri and its contribution to the Rena Recovery. Third Nature, SCANZ 2013: Symposium, Western Institute of Technology, Taranaki. 1 – 3 February, 2013.

Morgan, T.K.K.B. (2012). Indigenous Practice and Integrated Watershed Management. 18th Congress of the Asia Pacific Division of the Int. Assoc. for Hydro-Environment Engineering and Research, ICC jeju, Jeju, Korea. 19 - 23 August 2012.

Morgan, T.K.K.B. (2012). Three Gorges Project Holistic Sustainability Assessment. Presented at 18th Congress of the Asia Pacific Division of the Int. Assoc. for Hydro-Environment Engineering and Research, ICC Jeju, Jeju, Korea. 19 - 23 August 2012.

Morgan, T. K.K.B. (2012). Uku Thermal Performance Characteristics. Presented at ACEM 2012, Seoul, Korea. 27 August - 29 August 2012.

Morgan, T. K.K.B. (2012). Mātauranga Māori and its contribution to the Rena Disaster Response. Presented at Enhancing Māori Distinctiveness The Contribution and Opportunity: Ko tā te Māori ake takoha ki te ao, Rotorua Energy Events Centre Queens Drive, Government Gardens. 14 November - 16 November 2012.

Morgan, T.K.K.B. (2012). Indigenous Knowledge contribution to Watershed Management. Presented at ACEM 2012, Seoul, Korea. 27 August - 29 August 2012.

Morgan, T.K.K.B. (2012). Three Gorges Project: Exceeding the limits – which limits? Presented at New Zealand Freshwater Sciences Society Conference, Otago University, Dunedin. 3 December - 6 December 2012.

Morgan, T.K.K.B., Manuel, R. D., & Voyde, E. (2012). Economic Well-being aligned with Indigenous Wisdom: Is it possible? Presented at 5th biennial International Indigenous Development Research Conference, University of Auckland. 27 June - 30 June 2012.

2b. Previous research work relevant to this proposal

Research title: Mauri Restoration to pre-Rena State

Principal outcome: Determination pre-Rena state of mauri, quantification of impact upon mauri since the disaster, and assessment of mauri restoration options.

Principal end user(s): Collaboration with Te Arawa ki Tai who are the direct users of the research. Research readily available for all impacted Iwi and communities. Digitised mauriOmeter developed (English and Māori language versions) and made freely available via internet. See Project Mātauranga: Episode 11/11 - Rena Mauri.

Research title: Remote & Rural Community Infrastructure

Principal outcome: Identification of Hapū technical innovations that enhance resilience of remote and rural communities. Assessment of these for transferability, reliability, applicability, safety, and economic performance .

Principal end user(s): Research collaboration with Te Arawa, Tūhoe, Ngāpuhi, Te Rarawa and Hawai`ian kama`aina communities. Results disseminated back via community research team.

Research title: Whareuku

Principal outcome: Determination of whareuku construction appropriateness for Māori land development housing solutions. Two single room whareuku constructed.

Principal end user(s): Collaboration with Kokiri Te Rahuitanga Trust (urban) and Ngāti Whanaunga (rural) communities who were involved in construction of whare and evaluation of suitability for Māori land development. PM episode 5/13 Whareuku.

2c. Describe the commercial, social, or environmental impact of your previous research work

The Mauri Model is significantly changing the way that Government agencies and Local Government assess the sustainability of projects. This influenced the framing of the Rena recovery and has helped define the extent of the recovery effort. Te Arawa ki Tai are in direct negotiations with consultants for the Rena owners defining environmental, social and cultural bottom-lines for the resource consent conditions.

The whareuku project has gone from a conceptual improvement of Māori housing in terms of health (low toxicity, warm, dry) and safety (earthquake resistant), in a little more than a decade, to being the preferred housing solution of the Far North District.

2d. Demonstrate your relationships with end users

In 2015 Kepa has been invited to deliver Mauri Model workshops for Ngāi Tahu, Ngāti Kahungunu Iwi Inc., Ngāti Maniapoto, Ngāti Waikato, Te Arawa, and Ngāpuhi hapū. In 2014, Kepa facilitated more than two dozen Mauri Model workshops for Iwi and Local Council organisations.

Kepa was expert witness for Ngāti Kahungunu Iwi in the successful 2014 challenge to the Ruataniwha Water Storage Scheme and associated scheme plan change.

Kepa was invited in 2014 to represent Ngāti Pūkiao interests on the Technical Advisory Groups for the Rotoiti / Rotomā Sewerage Steering Committee, and for the Rotorua Pollution Steering Committee.

Kepa was expert witness for Ngāti Pūkiao in the successful 2012 Environment Court challenge of the Rotorua District Council Resource Consent for a Rotomā WWTP.