

# Wolfgang Kanz

Project Manager / Freshwater & Stormwater Specialist



Right from my early school years I knew I wanted to make a positive difference to our environment and its people. I joke that being born on International Wetlands Day (2 February) may have had something to do with that.

With an undergraduate honours degree in Zoology, Botany, Chemistry and Physics, and a research Masters degree in Applied Environmental Science, I bring a strong science foundation to all of my work. I have strengthened this base through ongoing professional development, continuing a focus on applied science, adding practical technical freshwater capability to my skill set. This led onto recognition as a freshwater expert, project managing and production of industry best management tools and guidelines, and being appointed as a Freshwater Principal in Auckland Council working on the NPSFM and freshwater projects related to stormwater. While continuing in water-related roles over the past five years in Gisborne Tairāwhiti, I have had the opportunity to significantly develop in cultural aspects related to freshwater. By partnering with mana whenua and mātauranga Māori experts, I was privileged to work alongside iwi and hapū, and in particular undertake work on mauri and mahinga kai.

Memberships have included the International Association for Impact Assessment, Auckland Botanical Society, NZ Hydrological Society, NZ Water, and the National Fish Passage Advisory Group. I am currently on the NZ Water Stormwater Committee.

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## Qualifications

- MSc Applied Environmental Science cum laude
- BSc Honours Zoology, Botany, Grassland Science
- Water Quality Monitoring and Analysis
- Stream Ecological Valuation certificate
- Mauri Compass
- Stormwater treatment TP10 / GD01
- Te Kunenga o te Ao Tikanga (Level 4)
- Riparian Zone Management
- Farm Hydrology and Diffuse Pollution
- Environmental auditing

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## Specialisations

- Project / Programme Management, incl. budgets
- Freshwater ecology, incl. wetlands, watercourses, fish passage; and restoration
- Wetland delineation and stream classification
- Stormwater quality and quantify
- NPSFM and NOF
- Tangata whenua engagement / partnership
- Integrating mātauranga Māori through mana whakahaere
- Wastewater management
- Resource consent applications and peer review
- Leadership of multidisciplinary teams
- Guidance document writing

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## Relevant Experience

### Awamoana Limited (February 2021 – August 2021)

This is a new company. The focus is on the interface between Western science and mātauranga Māori, in all matters water, and authentically partnering with tangata whenua. Work to date includes stormwater, wastewater, and freshwater projects, both in terms of technical and cultural aspects.

### Te Kaunihera o te Tairāwhiti | Gisborne District Council (November 2016 – July 2021)

**POSITIONS HELD:** Four Waters Strategy Advisor, Team Leader Storm and Waste Water, Senior Project Manager

Although originally appointed to project-manage the wastewater treatment plant upgrade wetlands project, my roles have spanned across all parts of Water Utilities and have included work with other council teams. My role was both as a technical expert and project manager. I managed two Major Projects over this time, which included significant risk and complexity. Concurrently I provided technical expert stormwater and freshwater advice to various teams and managed approximately 17 capital projects from scoping through to completion / delivery. I have also been fortunate in conducting a number of tangata whenua engagement / partnership processes, including related to the wastewater treatment plant upgrade, management of the Alternate Use and Disposal

programme, cultural aspects of disposal of wastewater into freshwater, and mortuary waste. I was recognised by industry peers by nomination and appointment onto the NZ Water Stormwater Committee.

### **Te Kaunihera o Tāmaki Makaurau | Auckland Council (2010 - 2016)**

**POSITIONS HELD:** Freshwater Principal Wai Ora Healthy Waterways, Senior Stormwater Specialist, Senior Consents and Compliance Advisor

Starting off in consents and compliance, I processed and assessed stormwater and industrial or trade activity resource consent applications, also undertaking compliance and enforcement. I provided specialised input into environmental effects on freshwater and applied the requirements of the unitary plan and stormwater guidance (TP10). Moving into more of a technical space, my next roles were as a stormwater technical specialist with roles specifically in freshwater aspects of stormwater management, which led to my appointment as Freshwater Principal working on freshwater projects related to stormwater and undertaking NPSFM and NOF work.

### **Afzelia Environmental Consultants (2005 - 2010)**

**POSITIONS HELD:** Director, Project Manager, Environmental Practitioner

Establishing my own company, I was responsible for all parts of the business. Technical roles included consent applications, assessments of environmental effects, biodiversity and ecological assessments, strategic planning, stormwater management, constructed wetlands, riparian management, water quality monitoring, and environmental auditing. Projects managed include the full range of industrial, commercial, residential, transport, three waters, conservation and agricultural development projects. These included management from scoping through to delivery, including contract management, monitoring, and engagement processes. I was recognised by industry peers by nomination and appointment onto the International Association for Impact Assessment KZN committee.

## **Selected Project Experience**

### **Awamoana Limited (November 2016 – July 2021)**

Compilation of a successful Freshwater Improvement Fund application - Restoring the Mauri and Ora of the Tūrangānui Estuary System: Interim Project Manager.

Production of the MfE Mahinga kai Māori freshwater value NPSFM – implementation guideline document for tangata whenua and councils to use in meeting their NPSFM / NOF requirements – Final report under review.

Delivering Mauri Compass training for both Taranaki Regional Council and Ngāti Mutunga, including a mahinga kai focus, integrating mātauranga Māori into freshwater projects, and undertaking cultural monitoring.

Producing a Stormwater Management Plan as required under the Tairāwhiti Resource Management Plan – at detailed design stage.

### **Te Kaunihera o te Tairāwhiti | Gisborne District Council (November 2016 – July 2021)**

Projects managed:

- DrainWise Programme, including capital delivery of stormwater projects, engagement, operational activities, and managing an annual budget of \$1.1M
- Wastewater Wetlands Project, incl. Te Karaka wetland concept design, managing contracts and multiple workstreams, a budget of approx. \$600k over two years
- Council representative on the KIWA Group, a tangata whenua mātauranga Māori technical reference group with the purpose of improving the Mauri of Tūrangānui-a-Kiwa bay
- Project management of a project on separation of mortuary wastewater from the conventional sewage system, working with tangata whenua and integrating Western science and mātauranga Māori
- Tangata whenua engagement of wastewater overflows into city rivers
- Scoping, design, and delivery of the Tamarau stormwater wetland, Heath Johnston Park
- Watercourse assessments of urban waterways
- Classification of watercourses
- Production of Stormwater & Industrial or Trade Activity management plan template version 1

### **Te Kaunihera o Tāmaki Makaurau | Auckland Council (2010 - 2016)**

Stormwater consents and compliance experience.

Project management and peer review of freshwater and stormwater guideline documents / technical reports (as a project manager and / or subject matter expert):

- o Ecological responses to urban stormwater hydrology  
[tr2013-033-ecological-responses-to-urban-stormwater-hydrology.pdf \(knowledgeauckland.org.nz\)](https://knowledgeauckland.org.nz/media/1626/tr2013-033-ecological-responses-to-urban-stormwater-hydrology.pdf)
- o Auckland's Urban Estuaries Management Opportunities  
<https://knowledgeauckland.org.nz/media/1626/tr2013-015-aucklands-urban-estuaries-management-opportunities.pdf>
- o Temperature as a stormwater contaminant  
<https://knowledgeauckland.org.nz/media/1661/tr2013-044-temperature-as-a-contaminant-in-streams-in-the-auckland-region.pdf>
- o Aquatic macrophyte selection for constructed wetlands  
<https://knowledgeauckland.org.nz/media/1603/tr2013-007-comparative-suitability-of-native-submerged-macrophyte-species-in-constructed-stormwater-wetlands-in-the-auckland-region-a-literature-r.pdf>
- o Aquatic weed management in stormwater ponds and wetlands
- o Prioritising freshwater environmental improvement and protection
- o Stream Ecological Valuation for intermittent streams  
<https://knowledgeauckland.org.nz/media/1285/tr2016-023-stream-ecological-valuation-application-to-intermittent-streams.pdf>

Project managing environmental improvement projects - Taiaoatea Stream Daylighting and Wetland Construction; Rawiri Stream Enhancement; D'Oyly Reserve Stream Daylighting and Wetland Construction; and Sherwood Reserve Floating Vegetated Island.

## Publications

- Kanz W.A., Ruru I.H., and Wilson D. (2020) Mauri Compass – Integrating Mauri into Stormwater Management [The Mauri Compass - Integrating Mauri into Stormwater Management by Wolfgang Kanz. Stormwater 2020. - YouTube](#)
- Kanz W.A., West N.B, and White C. (2020) Gisborne's Approach to Reducing Inflow and Infiltration – It's a Lot About Stormwater.
- Ruru I.H. and Kanz W.A. (2019) The Mauri Compass – a Mātauranga Māori Tool for Assessing the Mauri of Water. Version 01
- Hamilton, New Zealand. Water New Zealand Conference 2017, Paper – Co-author: Balancing a Community's Wastewater Aspirations with Affordability – The Gisborne Experience. [Attachment \(waternz.org.nz\)](#)
- Trainer at 'Guideline Document 01 Industry Training', Auckland (GD01 replaces TP10)
- Nelson, New Zealand. NZ Water Stormwater Conference 18 – 20 May 2016, Paper – Author: Green Infrastructure and Natural Asset Policy Development [Water New Zealand \(waternz.org.nz\)](#)
- Caring for Urban Streams <https://www.aucklandcouncil.govt.nz/environment/looking-after-aucklands-water/stormwater/docsbmpenvironmental1/caring-for-urban-streams-quick-guide.pdf>
- Auckland, Unitec (Institute of Technology) guest lectures: Issues in Bioresources – Case Studies of Development Impacts on Bioresources, and Developments in Constructed Wetlands (2010 & 2014)
- Christchurch, New Zealand. NZ Water Stormwater Conference 2014, Paper – Author: Aquatic Vegetation Management in Stormwater Ponds and Wetlands [{Paper Title} \(waternz.org.nz\)](#)
- Auckland Council Standard Operating Procedures: Managing Grass Carp
- Wellington, New Zealand. NZ Water Stormwater Conference 10 – 11 May 2012, Paper – Author: Chelsea Ponds – The Complexity of Water Quality Management of de facto Stormwater Ponds [Microsoft Word - storm12final00075.doc \(waternz.org.nz\)](#)
- Perth, Australia. International Water Association. Attendance. 25 – 29 November 2012. Constructed Wetlands
- Auckland, University of Auckland. Constructed Wetlands Seminar, TP10 and proposed changes. 2013.
- Auckland, New Zealand. World Wetland Day, 2 – 10 February 2012. Presenter: Constructed wetlands
- South Africa, IAIA Presentation: Biodiversity in Integrated Environmental Management: Towards Best Practice: Strategic Tools, 2010
- South Africa, South African National Biodiversity Institute (SANBI) Presentation: (Council) Biodiversity Sector Plans / Bioregional Plans, 2009
- Kanz et al. 2010 (Zululand). The uThukela District Municipality Biodiversity Sector Plan
- Kanz et al. 2011 (uThukela). Biodiversity Sector Plan for the Zululand District