

# Monday 31 July 2023

5 – 7 pm	Hydroflow welcome function
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# Tuesday 1 August 2023

8:00 am	Registrations / Welcome Tea and Coffee
8:30 am	<ul> <li>Karakia – Ngati Whatua Orakei</li> <li>Everyone to stand when the horn sounds</li> <li>After the karakia – please be seated</li> <li>Responding song will be Te Aroha</li> </ul>
	Te Aroha Love Te whakapono Faith Me te ranigmarie Peace Tatou taou e Be amongst us all
	Te Aroha Love Te whakapono Faith Me te rangimaire Peace Tatou taou e Be amongst us all
8:45 am	Opening address – Gillian Blythe, CEO, Water New Zealand Gillian has been the CE of Water New Zealand since July 2020. She came to the water sector after a long career in the electricity sector and where she became Head of Strategy at Meridian - a position she held for six years.  She studied economics at London University and one of her first pieces of research was looking at the environmental impact of large hydro dams. From there she completed her Masters in environmental economics, thinking about issues such as climate change and ozone layers.  Gillian has worked in places like Belarus, Uzbekistan. She sees the current time of reform and change in the water sector as a prime opportunity for the sector to make decisions that could have a positive long term intergenerational benefit.  Gillian is based in Wellington, where she lives with her husband and two teenage sons.







#### 9:00 am

#### Keynote Speakers – Peter Wood, Regulatory Team Leader, Taumata Arowai

Internationally recognised expert Peter Wood will describe the important work drinking water regulator Taumata Arowai is undertaking to ensure the protection of wai, including how backflow prevention is a key part of that picture. He will then be joined by Bruce McLaren, Regulatory Operations Manager at Taumata Arowai for a Q&A session.



Peter is employed by Taumata Arowai as the Regulatory Team Leader, Te Papaioea. He was part of the team that drafted the Drinking Water Quality Assurance Rules that came into effect in November 2022. Peter has been involved in drinking water regulatory roles since 1991 as a Health Protection Officer, and as a Drinking Water Assessor from 2007. He believes in protecting the health of people through the provision of safe drinking water.



Bruce is the Regulatory Operations Manager responsible for the regional offices and activities of the frontline staff across the motu. He first joined the public service so long ago that he signed the Official Secrets Act. He has seen a lot of changes since then and he joined Taumata Arowai because it is an exciting time with a whole new way of regulating this sector, and Taumata Arowai is at the leading edge of doing things differently.

#### 10:00 am

#### **Morning Tea**

#### 10:30 am

**Building Code Updates** – Ross Wakefield, MBIE

2022 Building Code consultation outcomes, and upcoming 2023 changes

Ross is the Senior Advisor for Plumbing and Hydraulic Services in MBIE's Building Performance and Engineering team. His team works to develop and maintain the Building Code system and his focus is on the parts which support plumbing and drainage work in New Zealand.



Ross trained as a Plumber, Gasfitter and Drainlayer in the Royal NZ Army Engineers, and since packing up his tools he's worked as a Plumbing and Drainage Inspector, Industry Training Assessor and Hydraulic Services Design Consultant.







11:00 am | Compliance Challenges – Peter Bahrs, Manager Water Services, Tauranga City Council

Peter Bahrs is the Manager Water Services for Tauranga City Council. He has over 30 years of experience in the water industry both locally and abroad and has held a variety of roles with focus in the water and wastewater operations field

In his various roles he has gained a wealth of experience including operational management of water and wastewater staff and infrastructure; the management of laboratories and quality systems; health and safety; asset management; O&M services contracts for water and involvement with capital and asset renewal projects.

11:30 am | Panel discussion around compliance

Peter Woods, Bruce McLaren, Ross Wakefield, Peter Bahrs

12:00 pm Lunch

1:00 pm Network Design – Richard Taylor, Thomas Consultants

Pressure management and fire supplies from a network perspective

Richard is a civil engineer with strong operational and planning experience in water supply networks due to his 22 years at the former Waitakere City Council in Auckland.



Since late 2010 he has been employed by Thomas Consultants Ltd and works with councils around New Zealand assisting with the management of water losses from water supply networks.

He also runs a national two-day water loss training event every two years, and last year commenced an online water network training course which has been very successful.







1:30 pm **Hydraulic Design** – *Nick Fleckney, Principle Hydraulic- Public Health Engineer, Mott MacDonald* 

Designing compliant plumbing systems beyond the point of supply

Nick is a principle Hydraulic-Public Health Engineer currently working for Mott MacDonald, based in Christchurch, undertaking a wide and varied range of work related to Hydraulic-Public health disciplines which also includes the very important task of ensuring and maintaining the security of potable water systems that serve the public.

Nick is active in the water, education and design space when it comes to all things hydraulics. He is the current chair of the AHSCANZ (Association of Hydraulic Services Consultants Australia New Zealand) just recently served a 9-year tenure on the Plumbers Gasfitters and Drainlayers Board. Nick provides expert witness services and input into government enquiries as and when required.

With his trade background as a Registered & Licensed Certifying Plumber, Gasfitter, Drainlayer, accredited Backflow tester/surveyor and educationalist. Nick has developed and fine-tuned a suite of specialist skillsets that is extremely rare in the professional engineering consulting environment.

Nick lives in Selwyn District with his family and is an avid supporter of the NZ Warriors!

2:00pm | Panel discussion around design

Richard Taylor and Nick Fleckney

2:15 pm Illustrating the use of metagenomic tools for characterising bacteria in drinking water:

Case studies from working with councils - William Taylor, ESR

Will is a bioinformatician and senior scientist with ESR. Based in Christchurch, his work and research is primarily focused on the applications of metagenomics to identify microbes and the presence of pathogenic organisms, antibiotic resistance, and microbial community composition. His current work utilises Illumina short read and Oxford Nanopore Technologies long read sequencing to perform amplicon and whole genome sequence analysis. Being highly collaborative, he works with members across ESR's national campuses, with councils and researchers from universities and research institutes both domestic and international.

2:45 pm Afternoon Tea







3:15 pm 3:45 pm	Training and Competency Structures – Richard Aitken, Telford Consulting Exploring common qualification and competency misconceptions  With over 30 years' experience in the plumbing and wider water industry, Richard has been involved in the Backflow Industry since 2008. Initially specalising in backflow testing and installation, he has since trained specifically to specialise in cross connection surveying and backflow programme creation. Richard is now focused on providing targeted training for backflow surveying, installation and related bespoke courses.  Sam Wood, S J Wood Consulting  Sam Wood has a diverse background in the plumbing, gasfitting, and drainlaying industry.  Sam previously served as the Senior Technical Advisor for the Plumbers,
	Gasfitters, and Drainlayers Board. In this pivotal role, he provided invaluable guidance to ensure the highest standards of safety, quality, and compliance within the industry. His attention to detail and profound understanding of regulatory requirements played a crucial role in shaping the industry's future and safeguarding public welfare.  Currently, Sam is self-employed as a consultant, trainer, and assessor.  Beyond his core role, Sam contributes to industry committees. He is involved in the Technical Advisory Group tasked with reviewing the plumbing, gasfitting, and drainlaying qualification framework and unit standards. Additionally, Sam contributes to a committee responsible for reviewing the combined Australian and New Zealand standards for plumbing and drainlaying.
4:15 pm	Day 1 wrap up – any further conversations from the day
4:30 pm	Closing of Day 1 – Nick Fleckney
6.30 pm	Pre-dinner drinks at venue
7:00 pm	Dinner at conference venue, including Backflow Group Awards







# Wednesday 2 August 2023

8:00 am	Welcome Tea and Coffee
8:15 am	Water New Zealand Backflow Group AGM
9:00 am	Day 2 Opening Comments – Paul van den Berg, Chair, Water New Zealand Backflow Group
9:15 am	An international perspective – Peter McLennan What's happening currently in Australia and America  Peter has over 30 years' experience leading the development of culture and growth across a range of industries, both corporate and private.  Hei s a subject matter expert and presenter of papers at conferences nationally and internationally on Australian industry subjects related to protecting the water supply, backflow prevention and demand management. As well, he has authored articles published in trade publications both nationally and internationally on water supply topics.
9:45 am	Backflow Issues in Australia – Jeff Parsonage, Backflow Prevention Association of Australia, National President  Jeff has been in the plumbing industry for over 50 years.  He is a founding member and treasurer of the Backflow Association in Victoria established in 1996.  Jeff has been president of the National Backflow Prevention Association for 3 years.  Jeff has been running a backflow prevention business since 1996. He is passionate about the need for backflow prevention and regularly speaks and writes articles on the subject.
10:15 am	Morning Tea







10:45 am | Pathogen Control – Kelvin Slade, Backflow Prevention Association of Australia | Legionella Group

Kelvin is a plumber, drainlayer and gasfitter. Holding endorsements in Backflow Prevention, Thermostatic Mixing Valves, Solar – Heat Pump Hot Water Systems and Director of Slade Plumbing in Brisbane. Kelvin is a board member of the Master Plumbers Association of Queensland, serving as President from 2013 to 2017 and is a member of the Backflow Prevention Association of Australia Management Committee.

Kelvin has been a trainer for more than 12 years, facilitating certificate IV courses throughout Queensland for MPAQ. During his role as a trainer, Kelvin took a keen interest in the management and treatment of Legionella bacteria in complex water systems within buildings, in particular aged care and healthcare facilities. In 2016 Kelvin was awarded a Fellowship by the Winston Churchill Memorial Trust to research legislation, training and best practice in the management and treatment of Legionella, travelling in the USA, Northern Ireland, England, Italy and Singapore.

The level of knowledge gained has enabled Kelvin to assist his clients with their water quality management, understand identified risks associated in their infrastructure and successfully treating Legionella outbreaks.







11:15 am | Source Water Risk Management Plans – Maria Johnson and Zoe Lightfoot, GWE

Streamlined Methodology for Source Water Risk Management Plans: Enhancing Drinking Water Safety and Quality in New Zealand



Maria Johnson is a chemistry and physics engineer from France and a Project Manager from the Prince 2 Foundation. As the Water Sector Lead at GWE Consulting Engineers, she focuses on drinking water compliance for various supply types and sizes in the context of the water reform. As part of her career in New Zealand in the past 15 years, Maria has worked on a variety of water supply projects and investigations. She lives in the Auckland rural suburb of Wainui with her husband and two children.



Zoe is a senior environmental scientist with GWE Consulting Engineers, with over eight years' experience in drinking water, contaminated land and environmental regulations. Recent work has included drinking water compliance assessments and the development of water safety plans including source water risk management plans for a range of smaller private and larger council owned water supplies. Zoe lives in Auckland with her fiancé and dog and loves the outdoors.

11:45 pm | Practical examples of source water risk identification in Aotearoa New Zealand - Jeremy Bennett, Tonkin + Taylor

Jeremy Bennett is a senior hydrogeologist at Tonkin & Taylor who specialises in groundwater modelling and environmental data analysis. He has over 10 years of consulting experience in New Zealand, Australia and Germany. Jeremy holds a doctorate in hydrogeology, from the University of Tuebingen in Germany and his research has been published in peer-reviewed journals and presented at international conferences. Originally from Wellington, Jeremy spent his formative years punching holes and sniffing (landfill) gas in the hills of the Greater Wellington region before diving deep into the subsurface world of groundwater. His current work focusses on source water risk and water resources management for regional councils and water suppliers, including Wellington Water.

12:15 pm | Lunch







1:15pm | Small water supply design solutions – Chris Temple, Temple Water

Qualified NZCS chemist, Chris founded Temple Water Technologies to provide rural New Zealand with the highest standard of scientifically engineered water treatment.



A graduate of the Auckland Technical Institute, Chris has worked throughout the Pacific region and has successfully completed projects in New Zealand, Australia, Papua New Guinea and his country of birth, Fiji. His customers have come from a variety of sectors and have included government and community agencies, food and beverage manufacturers, horticulturalists and dairy farmers.

Chris's multi-disciplinary abilities and purist approach to water treatment have seen him highly sought after both on a consulting and system manufacturing basis. For Chris, water treatment has been both a career and an obsession where his relentless investigation and ultimate resolution of each water situation is somewhat of a calling.

1:45pm Protection device selection for rural and small supplies – Phil Hodgson, Custom Controls

Phil Hodgson is a trade and tertiary qualified mechanical engineer with a broad background.

He has worked in design and project areas covering process, materials handling, valves and control for various media including steam, water, and process applications.

Phil has been a member of the Backflow Group for the past 7 years.

His involvement in the water industry has focused on working with and supply valves and controls to utilities and contractors that build and maintain the water and wastewater infrastructure.







2:15pm	Rural and small water supplies – Deborah Prus-Loughlin, White International Designing and installing rural and small water supplies with a view to compliance  Deborah Prus-Loughlin has spent her entire career in water. She started with a degree in Aquatic Bioscience, worked in aquaculture in a salmon breeding programme and has been designing drinking water systems for over 10 years. Her passion and speciality is in ensuring that small and very small water supplies have access to safe drinking water. She started the water treatment division of White International Ltd and now looks after New Zealand and Australia. She has been active during the
2:45pm	rise of the new drinking water legislation and has been volunteering with Water New Zealand in assisting with writing training courses and documents.  Afternoon tea
2.75pm	
3:15 pm	The importance of getting drinking water protection right  The Water New Zealand Backflow Group Committee discussing planning, preparation, and implementation
4:00 pm	Closing of Day 2 – Nick Fleckney Closing of Conference – New Chair, Water NZ Backflow Group







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